

Riverside South Library and Community Centre

Transportation Impact Assessment (TIA) Strategy Report

DRAFT

July 2026

Riverside South Library and Community Centre

Transportation Impact Assessment (TIA) Strategy Report

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STRATEGY REPORT

Parsons has been retained by Diamond Schmitt Architects and KWC Architects to prepare a TIA Report in support of a Site Plan Control Application (SPA) for the Riverside South Library and Community Centre. This document follows the TIA process as outlined in the City of Ottawa's Transportation Impact Assessment (TIA) Guidelines (2017) and Revisions (2023). The following report represents Step 3 – Strategy Report.

1.0 SCREENING FORM

The Screening Form confirmed the need for a TIA Report based on the Trip Generation and Location triggers. The Trip Generation trigger was met as the development is anticipated to generate over 60 person trips. The Location trigger was met due to the location of the proposed development within a Protected Major Transit Station Area (PMTSA), Hub Zone, and Design Priority Area. The Screening Form has been provided in **Appendix A**.

2.0 SCOPING REPORT

2.1. Existing and Planned Conditions

2.1.1. Proposed Development

The proposed development is located on vacant land in Riverside South, at the municipal address of 980 Earl Armstrong Road. The site is currently zoned L2[2954] S269 (Major Leisure Facility Zone, Urban Exception 2954, Schedule 269) per zoning by-law 2008-250. The developer intends to build a community centre, library, and outdoor athletics facilities.

The site context is illustrated in **Figure 1**, while the Concept Plan is illustrated in **Figure 2** with architecture set provided in **Appendix A**. The road network surrounding the site has not been constructed yet but are expected to consist of Jessie Chenevert Walk to the north, Town Square Place to the east, Portico Way to the west, and the Transitway to the south.

The development will consist of two phases. Phase 1 will provide a single building containing a 15,000 ft² library and a 25,000 ft² community centre (providing a gym, a fitness studio and two multi-purpose rooms), along with an outdoor playground, splash pad and fitness equipment. Phase 2 will provide outdoor athletic facilities, including two full-size soccer fields, a senior baseball diamond, two tennis courts, two pickleball courts, four beach volleyball courts, a full-size basketball court, several multi-use court and a skateboard park. Multi-use pathways (MUPs) will be provided throughout the site.

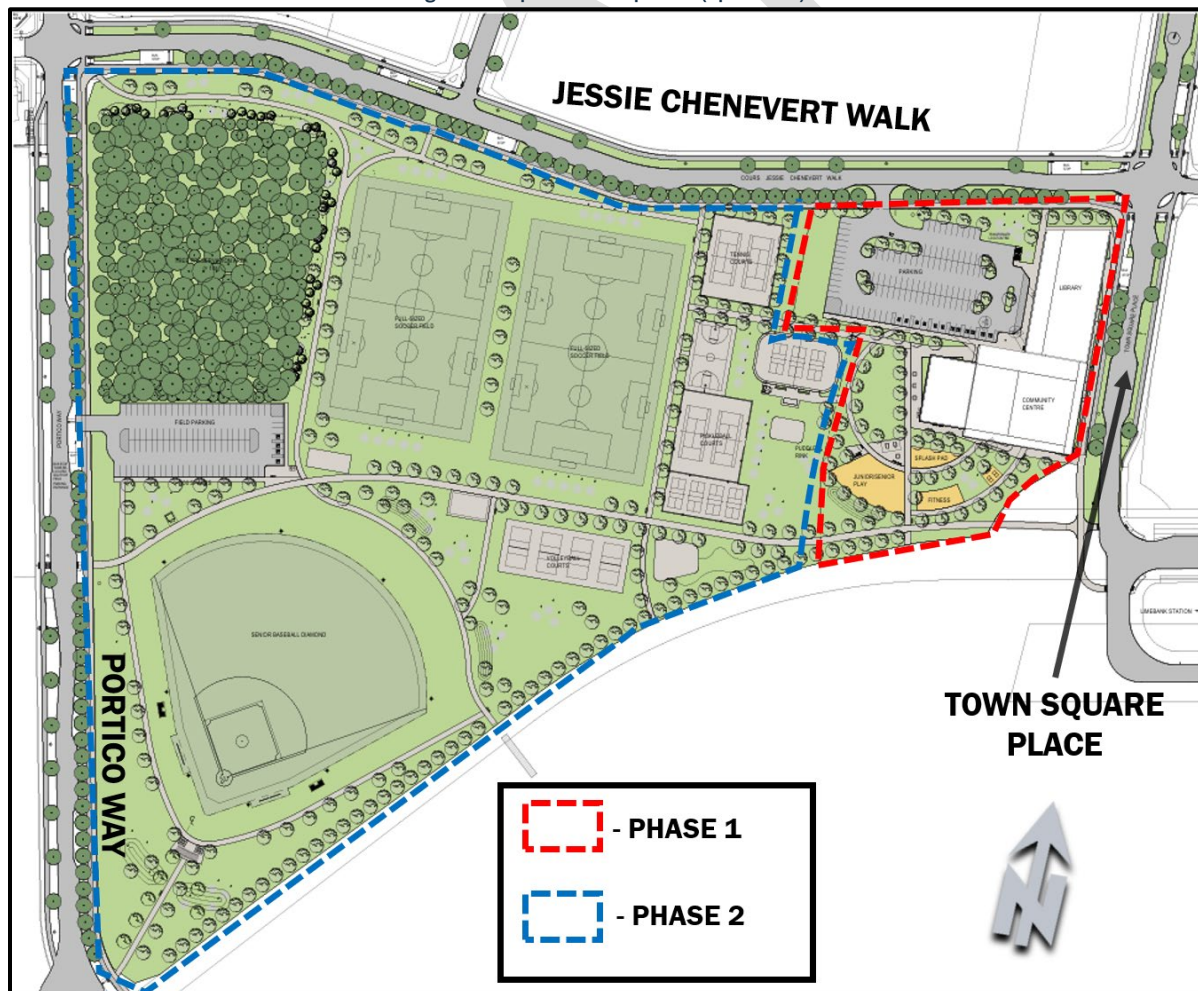
A surface parking lot is proposed as part of each phase of the development. For Phase 1, approximately 138 spaces are proposed, with two-way access to the lot provided along Jessie Chenevert Walk. For Phase 2, approximately 100 spaces are proposed, with two-way access to the lot provided along Portico Way.

For the purpose of this assessment, it has been assumed that the entire development will be built in a single phase, estimated for year 2030.

Figure 1: Local Context



Figure 2: Proposed Concept Plan (April 2026)



2.1.2. Existing Conditions

Area Road Network

Description of existing roads included within the study area has been provided below.

Earl Armstrong Road is an east-west municipal arterial road extending from River Road in the west to High Road in the east. Within the study area, the roadway consists of a four-lane cross section, with on-street bike lanes that are part of the Cross-town Bikeway and sidewalks on both sides of the road throughout the study area. Auxiliary turn lanes are provided at intersections. The posted speed limit is 80 km/h with a protected ROW of 44.5 m.

Portico Way is a short north-south municipal local road extending from Earl Armstrong Road in the north to a dead-end at the future Jessie Chenevert Walk. Portico Way is expected to be extended further south in the future, where it will form the western boundary of the development site. North of Earl Armstrong Road, Portico Way turns into Canyon Walk Drive which is a north-south municipal collector road that loops to the north-west and ends at Spratt Road. Portico Way consists of a two-lane cross section and a sidewalk on the west side of the road, while Canyon Walk Drive provides sidewalks on both sides of the road. The posted speed limit is 50 km/h.

Limebank Road is a north-south municipal arterial road extending from Hunt Club Road in the north to Mitch Owens Road in the south. Within the study area, the roadway consists of a six-lane cross-section with on-street bike lanes on both sides of the road. Sidewalks are present on both sides of the road north of Earl Armstrong Road with a sidewalk currently being constructed on the west side between Earl Armstrong Road and the LRT. The posted speed limit is 80 km/h with a protected ROW of 44.5m.

Existing Study Area Intersections

Earl Armstrong Road/Portico Way-Canyon Walk Drive

The Earl Armstrong Road/Portico Way-Canyon Walk Drive intersection is a four-legged signalized intersection. The north leg consists of a channelized auxiliary right-turn lane, a through lane, and an auxiliary left-turn lane. The east leg consists of an auxiliary left-turn lane, two through lanes, a bike lane, and a channelized auxiliary right-turn lane. The south leg consists of an auxiliary left-turn lane, a through lane, and a channelized auxiliary right-turn lane. The west leg consists of a channelized auxiliary right-turn lane, two through lanes, a bike lane and an auxiliary left-turn lane. There are no prohibited movements at the intersection.



Earl Armstrong Road/Town Square Place-Blanca Street

The Earl Armstrong Road/Town Square Place-Blanca Street intersection is a four-legged signalized intersection. The north leg consists of a channelized auxiliary right-turn lane, a through lane, and an auxiliary left-turn lane. The east leg consists of an auxiliary left turn lane, two through lanes, a bicycle lane, and a channelized auxiliary right-turn lane. The south leg consists of a through lane and a channelized right-turn lane. The west leg consists of a channelized auxiliary right-turn lane, a bicycle lane, two through lanes, and an auxiliary left-turn lane.



Earl Armstrong Road/Limebank Road

The Earl Armstrong Road/Limebank Road intersection is a four-legged signalized intersection. The north leg consists of a channelized auxiliary right-turn lane, a bike lane, two through lanes, and two auxiliary left-turn lanes. The east leg consists of two auxiliary left-turn lanes, two through lanes, a bike lane, and a channelized auxiliary right-turn lane. The south leg consists of two auxiliary left-turn lanes, two through lanes, a bike lane, and a channelized auxiliary right-turn lane. The west leg consists of two auxiliary left-turn lanes, two through lanes, a bike lane, and a channelized auxiliary right-turn lane.



Existing Driveways to Adjacent Developments

Since the boundary roads of the development have not been constructed yet, there are currently no adjacent driveway developments within 200m of the proposed access locations.

Existing Area Traffic Management Measures

Existing area traffic management measures within the study area include traffic calming measures such as flex posts along Canyon Walk Drive and Shoreline Drive, along with bus-only restricted access on Town Square Place.

Existing Pedestrian/Cycling Network

The following active transport facilities are provided within the study area and illustrated in **Figure 3** and **Figure 4**, with approximate width estimates:

- Earl Armstrong Road
 - Sidewalks on both sides of the road with an approximate width of 2.0 m.

- Bike lanes on both sides of the road with a width of up to 2.2 m.
- Limebank Road
 - North of Earl Armstrong Road has sidewalks on both sides of the road with an approximate width of 2.0 m. South of Earl Armstrong Road, no sidewalk facilities are provided.
 - Bike lanes are provided on both sides of the road, with an approximate width of up to 2.2 m.
- Portico Way
 - Sidewalks are provided on the west side of the road only with an approximate width of 2.0 m.
 - No cycling facilities are provided.
- Canyon Walk Drive
 - Sidewalks are provided on both sides of the road with an approximate width of 2.1 m.
 - No cycling facilities are provided.
- Ralph Hennessy Avenue
 - Sidewalks are provided on both sides of the road with an approximate width of 2.1 m.
 - No cycling facilities are provided.
- Shoreline Drive
 - Sidewalks are provided on both sides of the road with an approximate width of 2.0 m on the east side and 1.5 m on the west side.
 - No cycling facilities are provided.

Figure 3: Existing Active Transportation Facilities (Cycling)

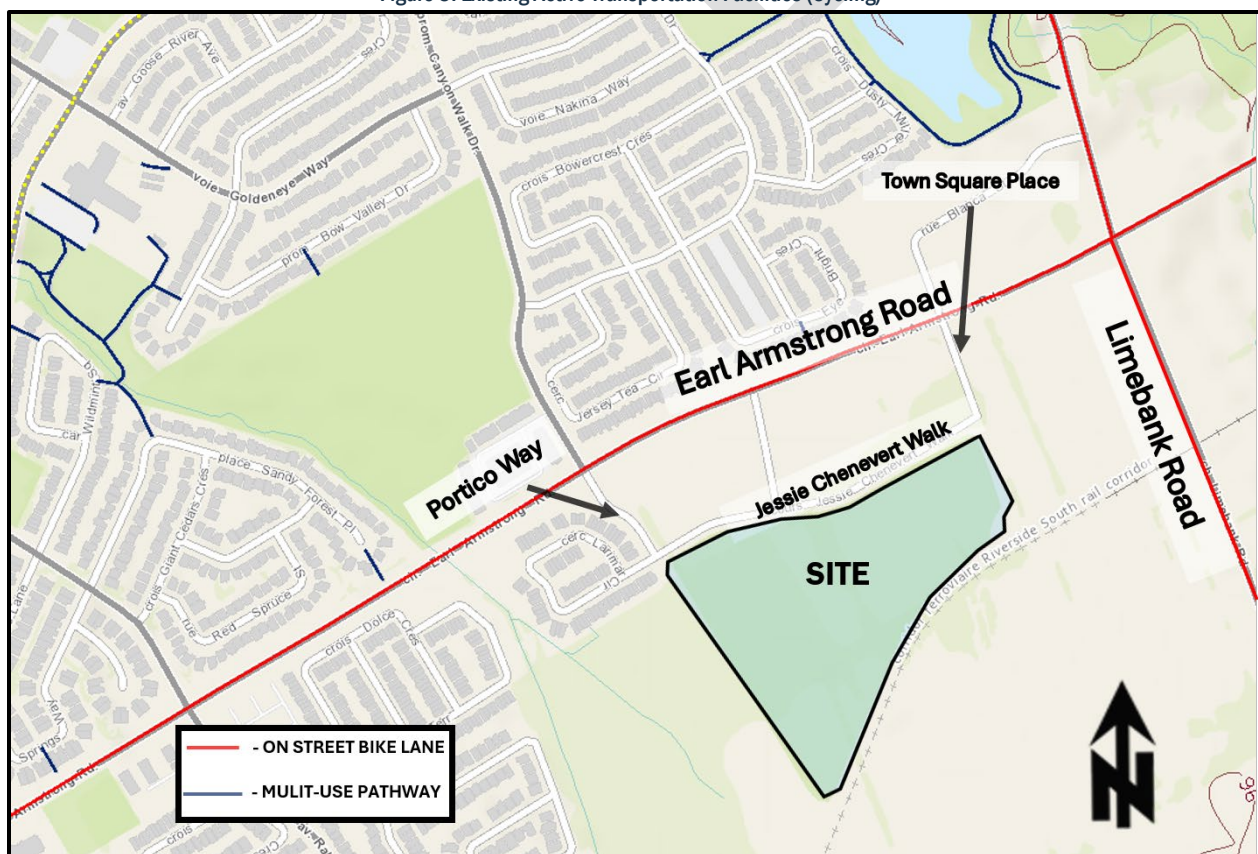
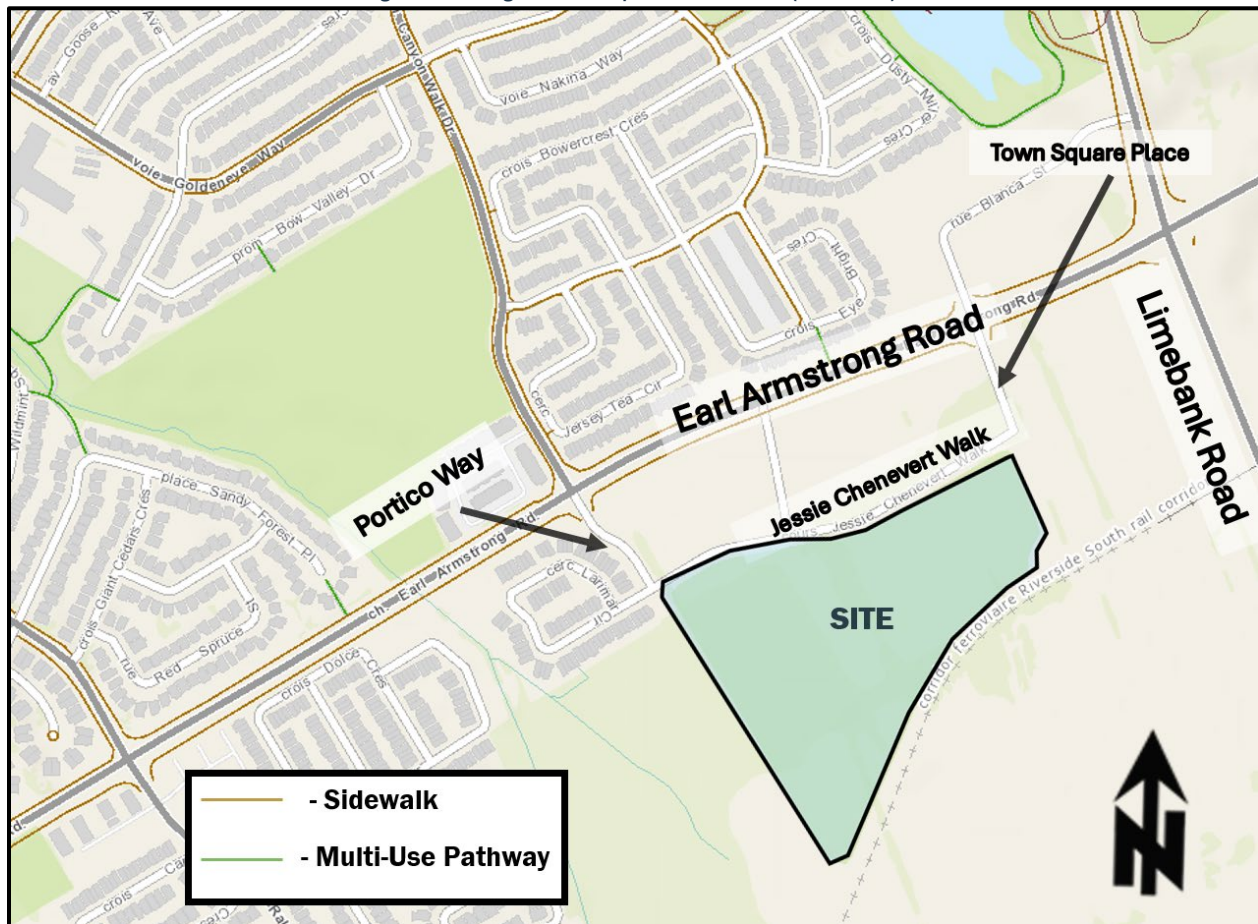


Figure 4: Existing Active Transportation Facilities (Pedestrian)



Transit Network

The existing OC Transpo transit network for the study area is illustrated in Figure 5 with Figure 6 illustrating the bus stop locations and ID near to the site.

Figure 5: Area Transit Network

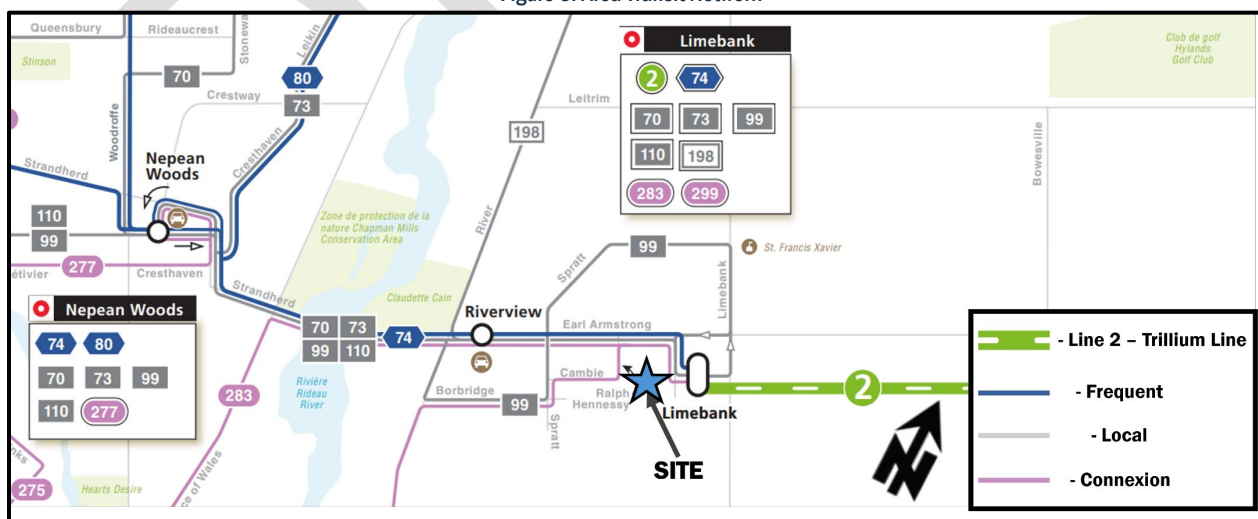
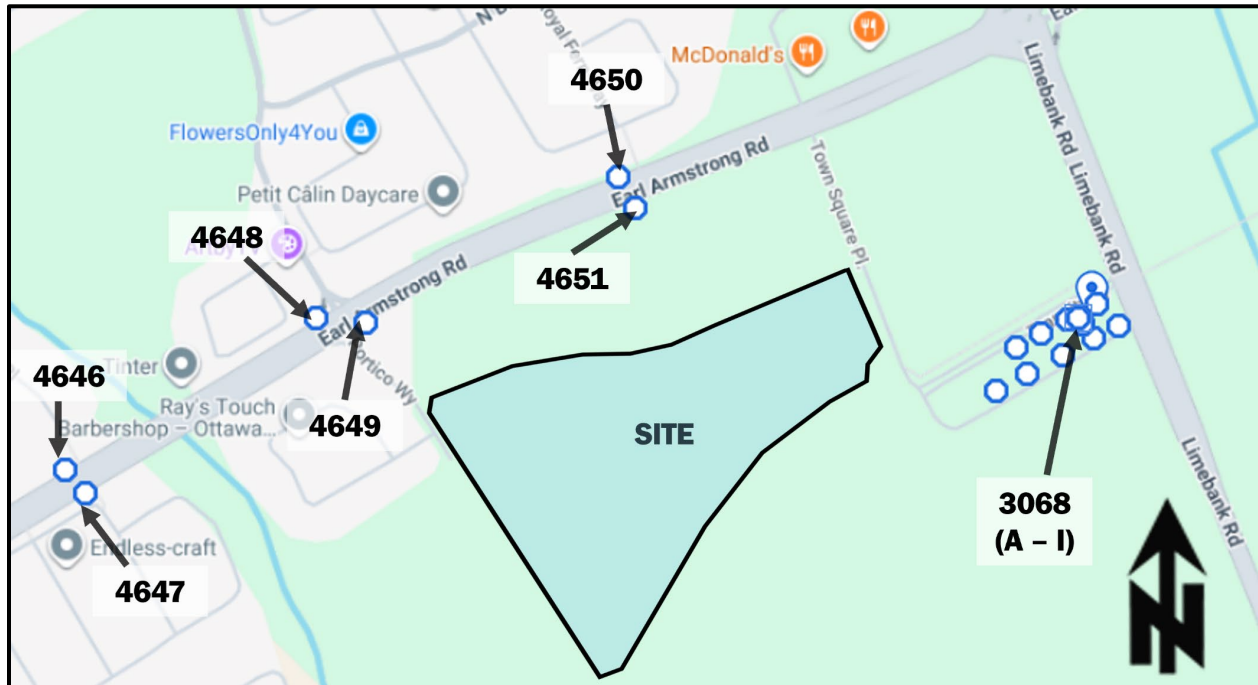


Figure 6: Bus Stop Locations



As shown in **Figure 6**, bus stops are currently provided on Earl Armstrong Road, as well as at Limebank Station, where buses and the LRT currently operate. The site falls within less than 200 m radius of the eastbound and westbound bus stops on Earl Armstrong Road at Portico Way, with similar distance to Limebank Station.

The following description of OC Transpo routes within the study area reflect the current transit operations:

- **Line #2 (Limebank <-> Bayview):** part of OC Transpo's LRT Trillium Line, this O-Train route operates with 12-minute headways 7-days a week at all time periods. Line 2 provides connections to several bus routes as well as transfer points for Line 4 LRT (Airport Link) at South Keys Station and Line 1 LRT (Confederation Line) at Bayview Station. Line #2 provides access to significant destinations such as the EY Centre at Uplands Station, Carleton University at Carleton Station, the Civic Hospital at Dow's Lake Station, and rest of the LRT network via South Keys and Bayview Stations.
- **Route #70 (Limebank <-> Fallowfield):** part of OC Transpo's local network, this route operates with varied frequency according to the day of the week and time-of-day. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal I.
- **Route #73 (Fallowfield/Limebank <-> Tunney's Pasture):** part of OC Transpo's local network, this route operates with 30-minute headways only on weekdays. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal G.
- **Route #74 (Limebank <-> Tunney's Pasture):** part of OC Transpo's frequent network, this route operates with 15-minute headways 7-days a week. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal H.
- **Route #99 (Limebank <-> Barrhaven Centre via Weybridge):** part of OC Transpo's local network, this route operates with 30-minute headways 7 days a week. The nearest bus stop to the site is at Limebank Station Bus Terminal F.
- **Route #110 (Limebank <-> Innovation):** part of OC Transpo's local network, this route operates with 30-minute headways on weekdays and 30-minute headways during AM/PM peak hours on weekends. The

nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal A.

- **Route #198 (Limebank <-> Greenboro):** part of OC Transpo's local network, this route operates only on weekdays, with 30-minute headways. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal A.
- **Route #283 (Limebank <-> Richmond/Munster Hamlet):** part of OC Transpo's Connexion Network, this route operates only during AM/PM peak periods on weekdays, with 30-minute headways. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal A.
- **Route #299 (Limebank <-> Manotick):** part of OC Transpo's Connexion Network, this route operates only during AM/PM peak periods on weekdays, with 30-minute headways. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649), Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651), and Limebank Station Bus Terminal A.
- **Route #699 (Pierre de Blois <-> Findlay Creek):** part of OC Transpo's Connexion Network, this route operates only during AM/PM peak periods on weekdays, with 30-minute headways. The nearest bus stop to the site is at Earl Armstrong Road and Portico Way-Canyon Walk Drive (Bus Stop IDs #4648 and #4649) and Earl Armstrong Road and Eye Bright Pathway (Bus Stop IDs #4650 and #4651).

Peak Hour Travel Demands

The morning and afternoon peak hour traffic count data was obtained from the City of Ottawa, while Saturday peak hour traffic counts were obtained from the TIA Report for the adjacent 400 Jessie Chenevert Walk. Weekday data at the following intersections were obtained:

- Earl Armstrong/Portico/Canyon Walk – Wednesday, December 18, 2019
- Earl Armstrong/Town Square – Wednesday, February 25, 2026
- Earl Armstrong/Limebank – Wednesday, January 28, 2026

Saturday data was collected December 06, 2025, based on the 400 Jessie Chenevert Walk report. The traffic volumes at study area intersections are illustrated in **Figure 7**, with active transport volumes (pedestrians and cyclists) illustrated in **Figure 8**. Raw data is provided in **Appendix B**.

Based on **Figure 7**, Earl Armstrong Road carries the highest portion of vehicular traffic within the study area with eastbound movements at their highest during the AM Peak period (approximately 1,040 veh/h) while westbound movements peak during the PM Peak period (approximately 1,380 veh/h).

Turning movements off Earl Armstrong Road remain relatively low with less than 15 veh/h for any movement at both Portico Way-Canyon Walk Drive and Town Square Place-Blanca Street intersections as these intersections provide access to low-density neighbourhoods and a commercial plaza, respectively.

Weekday peak hour volume between the EBL and the SBR movements of the Earl Armstrong/Limebank intersection are notably high, with approximately 500 EBL vehicles during the morning peak hour and 630 SBR vehicles during the afternoon peak hour.

The Saturday peak hour volumes are low compared to the weekday morning and afternoon peak hour volumes.

Figure 7: Existing Peak Hour Total Vehicle Traffic Volumes

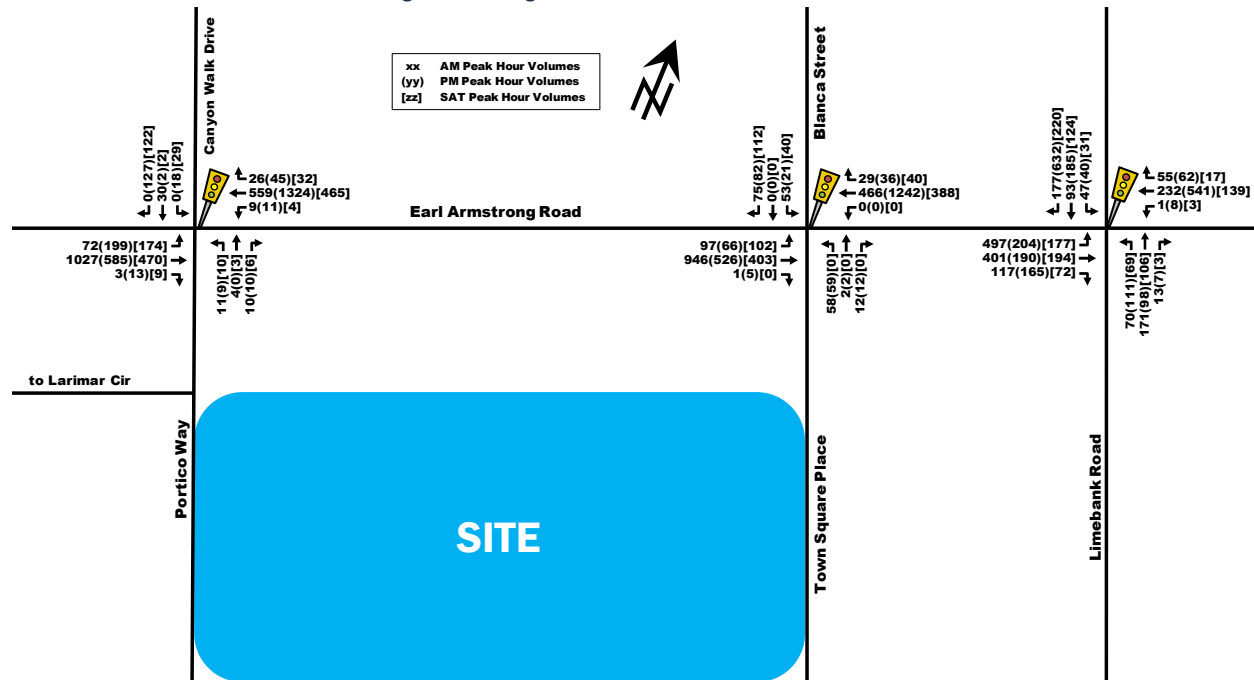
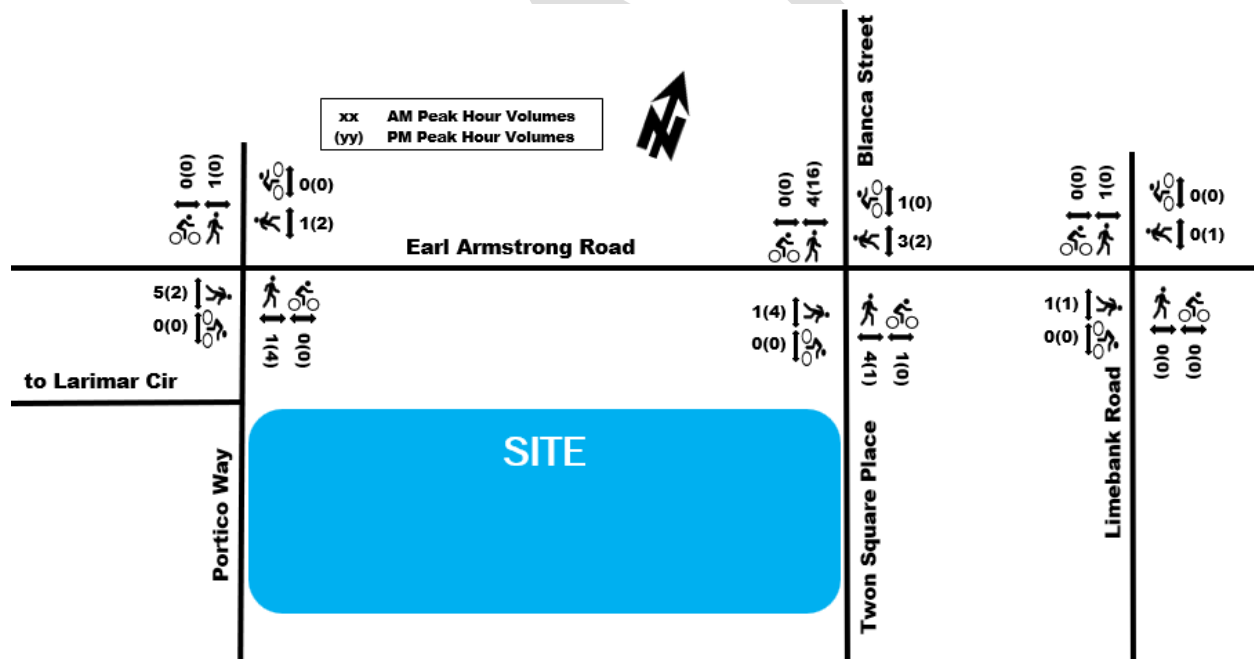


Figure 8: Existing Pedestrian and Cyclists Peak Hour Volumes



Existing Road Safety Conditions

The latest five-year collision history data (2019-2024, excluding 2023) was obtained from the City of Ottawa Open Data for the existing study area intersections and road segments. The data was analyzed as an initial screening. Detailed collision analysis has been provided in **Appendix C**.

A summary of the data is provided in **Table 1**. It is worth noting that Riverside South has been undergoing significant development over the past several years, including within the study area, where Town Square Place and Limebank Station were not operational until 2025.

Based on the analysis results for the available data, it was determined that the total number of collisions observed within the study area was 40 collisions within the five-year period. Of the collisions, 32 (80%) resulted in property damage only, while the remaining incidents 8 (20%) resulted in non-fatal injury collisions. There were no fatal collisions recorded within the study area.

Table 1: Collision Summary by Type and Severity

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV Other	SMV Unattended	Other	Total
Property-Damage-Only (PDO)	22	5	0	0	0	3	0	2	32 (80%)
Non-fatal injury	2	3	0	2	0	1	0	0	8 (20%)
Fatal Incidents	0	0	0	0	0	0	0	0	0 (0%)
Total	24 (60%)	8 (20%)	0 (0%)	2 (5%)	0 (0%)	4 (10%)	0 (0%)	2 (5%)	40 (100%)

Most collisions occurred from rear ends, followed by turning movements, SMV Other, angled and 'other'. **Table 2** summarizes the study area collision history by intersection, including the total number of collisions, percent causing injury, number of collisions with vulnerable road users, and the most frequent collision type. Potential collision patterns are also noted in the table, which are classified as 7 or more collisions of the same collisions type and vehicle movements. Similarly, the mid-block collisions are summarized in **Table 3**.

Based on the analysis, the number of collisions recorded is relatively low with no specific collision patterns occurring at the study area roads and intersections.

Table 2: Collision Summary at Study Area Intersections

Intersection Location	Collisions in 5 Years	Percent Non-Fatal Injury	Pedestrian Collisions	Bike Collisions	Most Frequent Collision Type and Potential Pattern
Earl Armstrong Road/Portico Way-Canyon Walk Drive	10	30%	0	0	- Turning Movement (50%) - No collision pattern noted.
Earl Armstrong Road/Town Square Place-Bianca Street	0	0%	0	0	No collisions have been recorded given the intersection was constructed recently.
Earl Armstrong Road/Limebank Road	29	17%	0	1	- Rear End (76%) - It is noted that 7 rear end collisions occurred in the southbound travel direction and 9 in the westbound travel direction. However, the collisions for each leg are divided between vehicles either turning right or travelling through, with no apparent collision pattern experienced by a specific movement.

Table 3: Collision Summary at Study Area Mid-Block Locations

Midblock Locations	Collisions in 5 Years	Length of Segment	Percent Non-Fatal Injury	Collisions with AT	Most Frequent Collision Type
Earl Armstrong Road, between Portico Way-Canyon Walk Drive and Town Square Place-Bianca Street	0	520m	0%	0	No collisions recorded.
Earl Armstrong Road, between Town Square Place-Bianca Street and Limebank Road	1	230m	0%	0	1 SMV Other collision - No collision pattern noted.
Portico Way, between Earl Armstrong Road and south extent	0	165m	0%	0	No collisions recorded.
Town Square Place, between Earl Armstrong Road and Limebank Station	0	290m	0%	0	No collisions have been recorded given the road was constructed recently.

2.1.3. Planned Conditions

Official Plan (2021)

Official Plan Designation

As shown in **Figure 16**, **Figure 17**, and **Figure 18**, the subject site falls within the Suburban (Southwest) Transect, a Protected Major Transit Station Area, and a Design Priority Area per Schedules B6, C1, and C7-A in the City of Ottawa's Official Plan respectively.

Figure 9: Schedule B6 – Suburban Designations

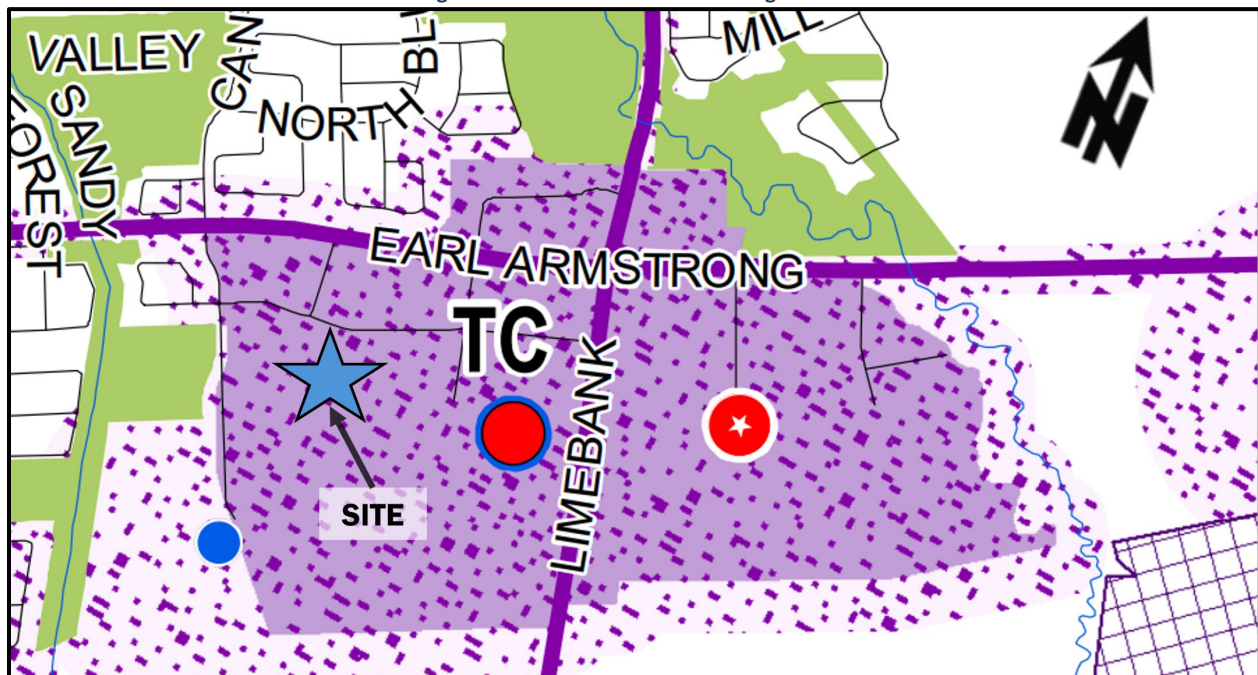


Figure 10: Schedule C1 – Protected Major Transit Station Areas

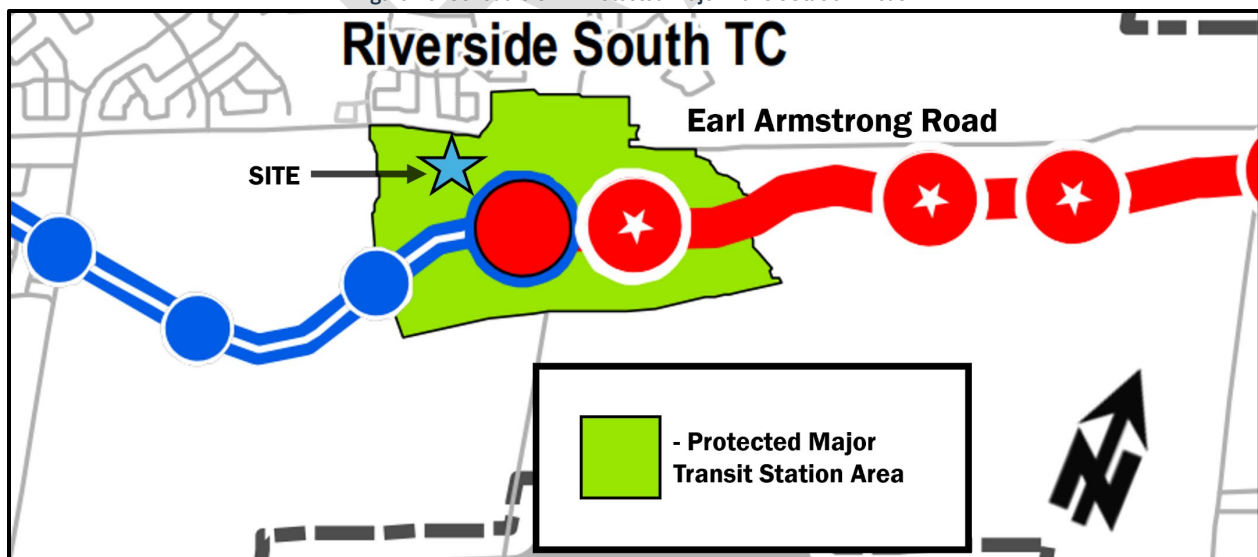
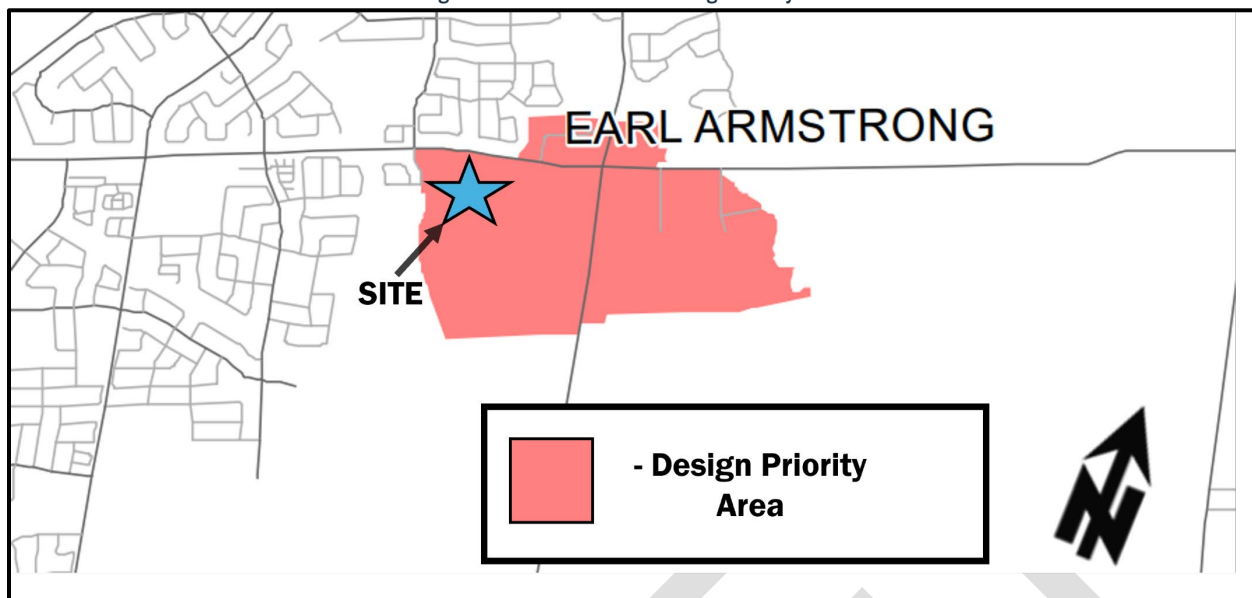


Figure 11: Schedule C7-A - Design Priority Area

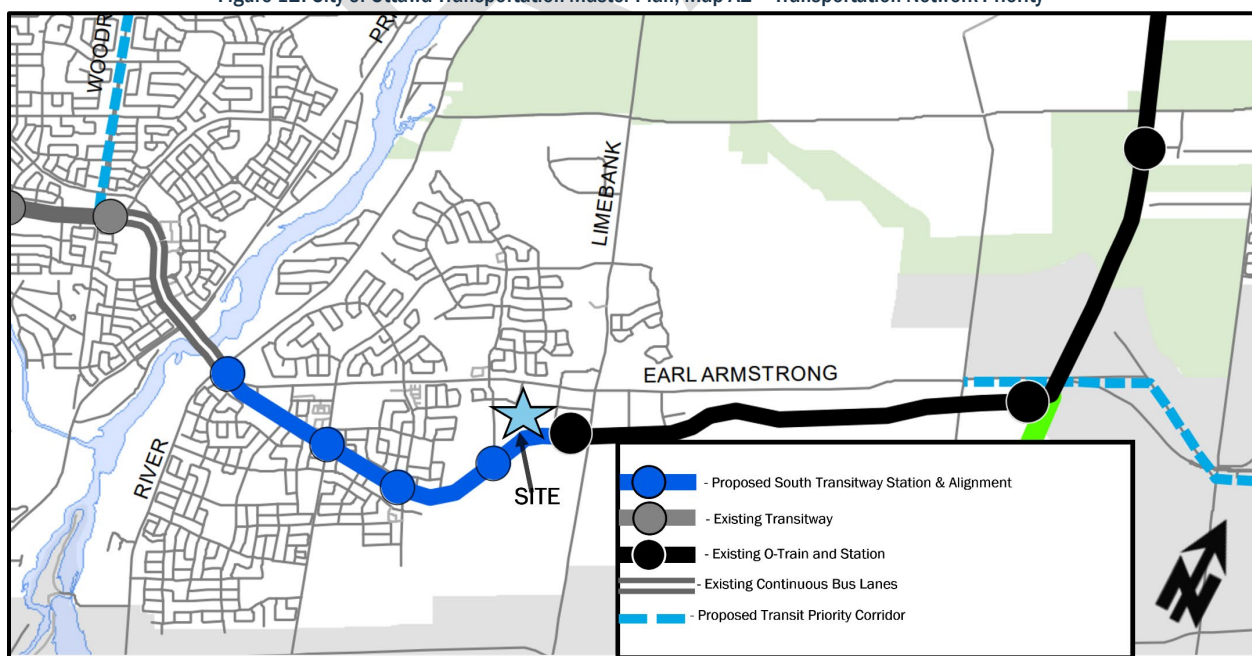


Future Transit Network Changes

South Transitway (Riverview Station to Limebank Station)

As part of The City of Ottawa's new Transportation Master Plan (2025), the city has included the South Transitway project as part of its Priority Transit Network. This project is planned to be a dedicated bus rapid transit corridor with at-grade crossings connecting O-Train Line 2 with Barrhaven Town Centre and the future O-Train Line 1 extension via existing bus lanes on Strandherd Drive and Chapman Mills Drive. **Figure 9** illustrates the proposed alignment of this project, which would be located at the south boundary of the proposed site. Based on initial details provided by City of Ottawa staff, the likely timeline for the transitway project is expected to be in the 2036-2046 time period.

Figure 12: City of Ottawa Transportation Master Plan, Map A2 - Transportation Network Priority



Future Road Network Changes

Figure 10 illustrates the plan of subdivision surrounding the development site, which includes a new road network. These plans include a southern extension of Portico Way and the construction of Town Square Place, a north-south collector connecting Limebank Station to Earl Armstrong Road. An additional east-west collector is planned, Jessie Chenevert Walk, connecting Portico Way and Town Square Place, with an eastern local road extension between Town Square Place and Limebank Road called Springbriar Way.

The planned road network, along with further context, is displayed in **Figure 11**. Portico Way, Town Square Place and Jessie Chenevert Walk are all classified as future collector roads in the City of Ottawa Official Plan and Transportation Master Plan. The assumed speed limit of these roads is 40km/h. The plan of subdivision indicates that sidewalks, cycle tracks and bus stops are planned on both sides of all the new roads. It is noted that turn lanes from Earl Armstrong Road onto Town Square Place are currently marked as dedicated bus lanes. However, it is anticipated that Town Square Place would be open to general traffic in the future.

Figure 13: 980 Earl Armstrong Plan of Subdivision

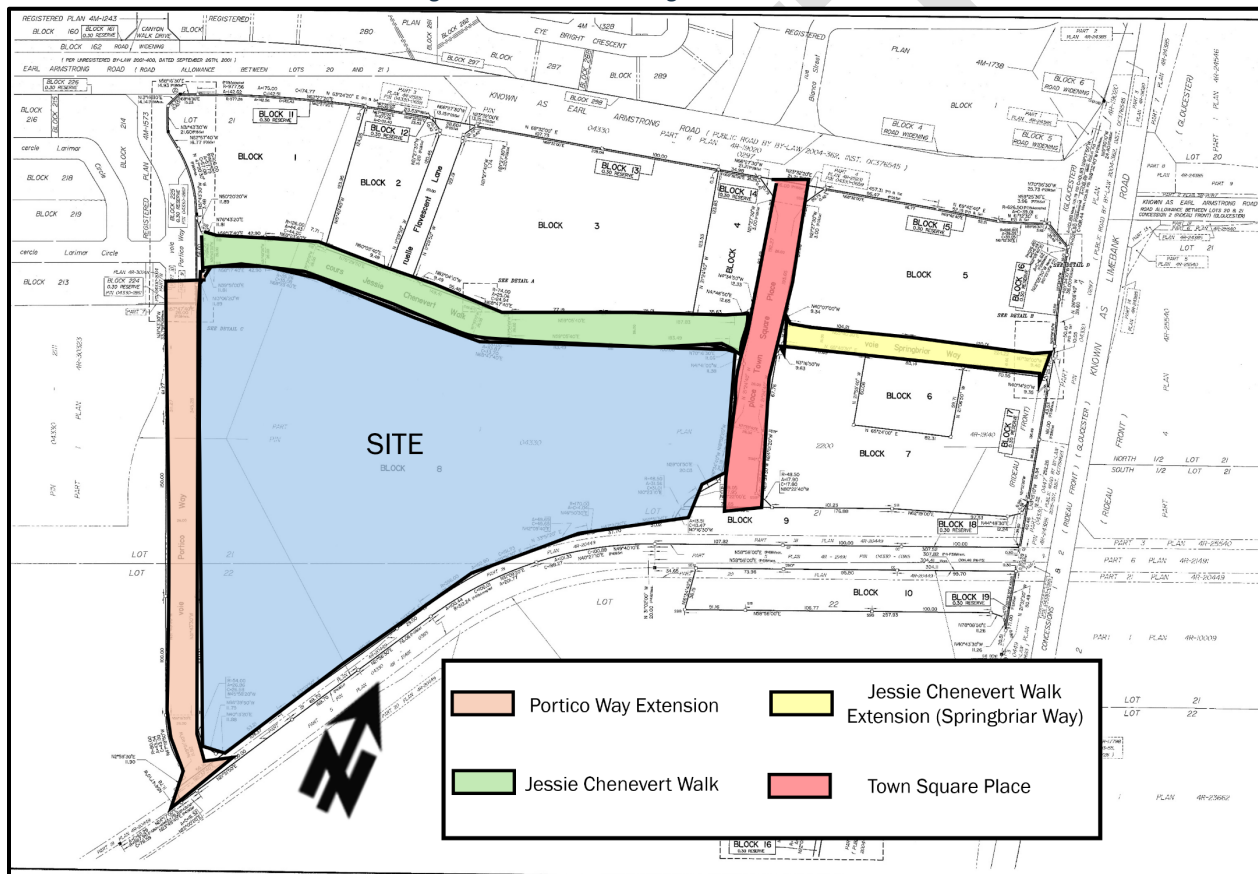


Figure 14: City of Ottawa Transportation Master Plan, Map D4 – Ultimate Road Network Urban

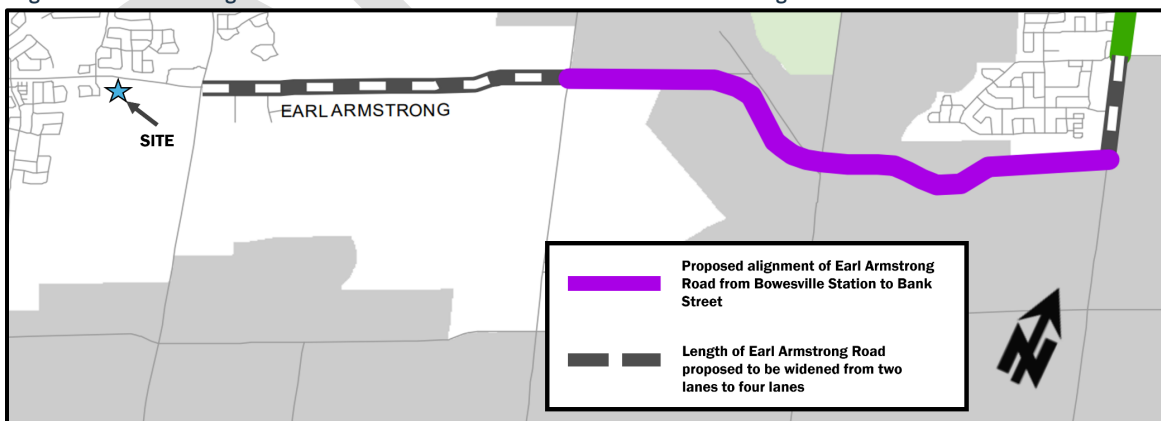


Earl Armstrong Road Widening and Extension

Identified as a “Phase 1 Capacity Project” in the City of Ottawa’s Transportation Master Plan Priority Network, the extension of Earl Armstrong Road from Bowesville Station to Bank Street provides capacity and connectivity for growth in Riverside South and Findlay Creek, helping to complete the road network. Proposed alignment of the road extension is shown in **Figure 12** below. Although outside of the immediate project study area, this project has significant impacts on the future operations of the surrounding network.

The widening of Earl Armstrong Road from Limebank Road to Bowesville Station is identified as a “Phase 2 Capacity Project” in the City of Ottawa’s Transportation Master Plan and involves the widening of the roadway from two to four lanes and will provide added capacity for growth in Riverside South. An outline of the area to be widened is also shown in **Figure 12** below.

Figure 15: Earl Armstrong Extension from Bowesville Station to Bank Street and widening from Limebank Road to Bowesville Station



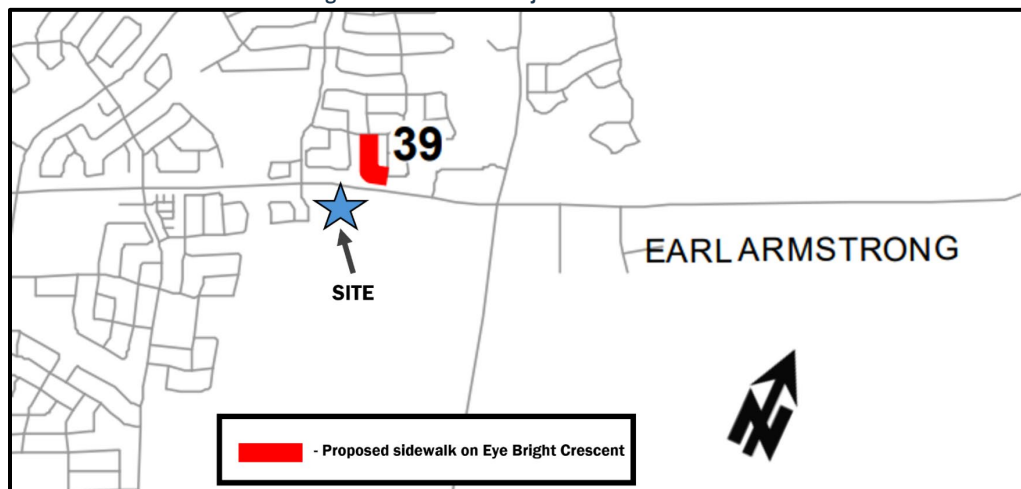
Future Active Transportation Network Changes

Eye Bright Crescent Sidewalk

Per Annex C, Table C1 “Pedestrian Projects with Prioritization” of the City of Ottawa’s Transportation Master Plan (#39) the construction of sidewalk facilities are planned on Eye Bright Crescent to facilitate pedestrian access

from the neighbourhood to Earl Armstrong Road, bus stop #4650, and beyond to the subject site and/or Limebank Station. The extent of the proposed sidewalk project is illustrated below in **Figure 13**.

Figure 16: Pedestrian Projects with Prioritization



Limebank Station Pathway, Spratt Road Cycling & Earl Armstrong Road Cross-town Cycling Network

As shown in **Figure 14** below, two cycling projects are considered “Cycling Projects with Prioritization” as part of the City of Ottawa’s Transportation Master Plan. Project #68, the Limebank Station Pathway is planned to be a multi-use pathway connecting western Riverside South to Limebank LRT Station. Project #107, Spratt Road Cycling facilities, involves the study of lane removal to add buffered cycling facilities on Spratt Road from Earl Armstrong Road to Urban Shopping Plaza Entrance.

Additionally, as shown in **Figure 15**, Earl Armstrong Road from River Road to Limebank Road is considered a Cross-town Cycling Network meaning it is prioritized for upgrades during road reconstruction.

Figure 17: Cycling Projects with Prioritization

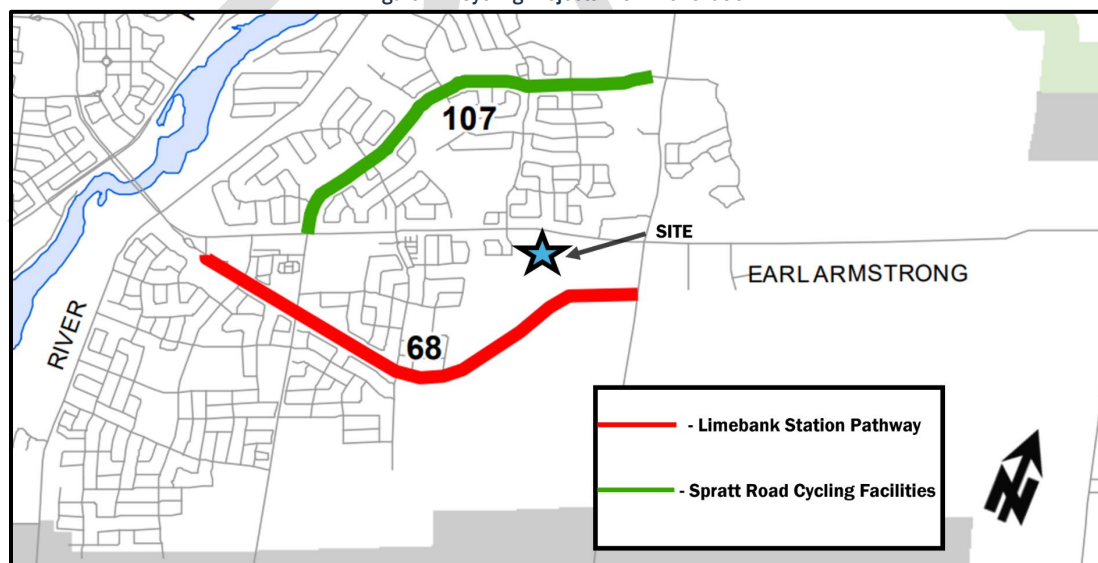
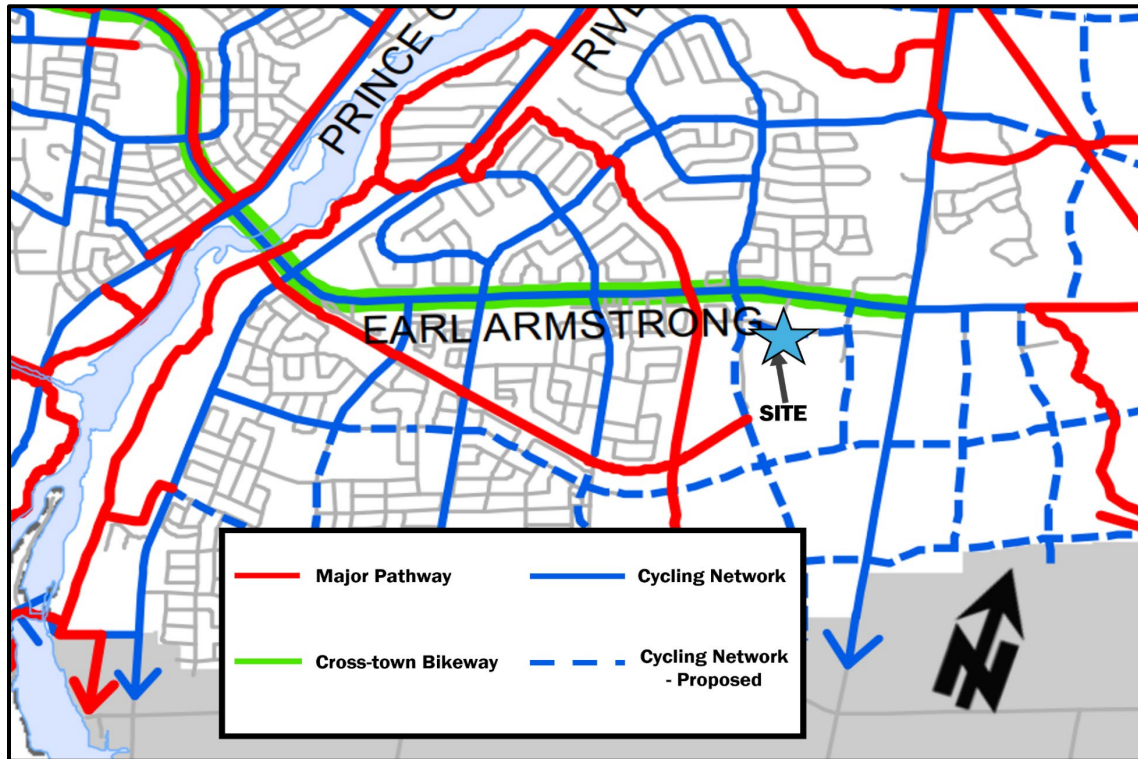


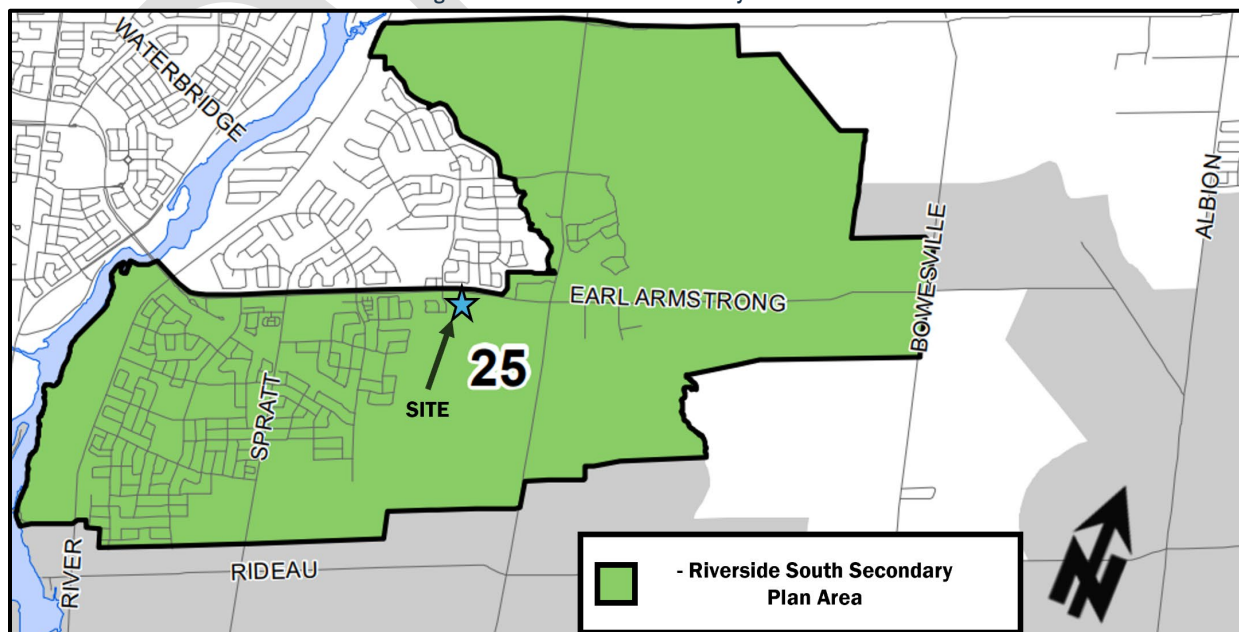
Figure 18: Cross-town Bikeway Network



Riverside South Secondary Plan (2024)

The subject site falls within the area of the Riverside South Secondary Plan **Figure 19**. This secondary plan contemplates the growth of the community over the next 25 years and sets targets for population, jobs, density, streetscape, land uses, and mobility within the Riverside South Community. The Secondary Plan anticipates the community to be built out with City-led capital projects and through private development applications such as Plans of Subdivision, Zoning By-law Amendments, and Site Plan Control. The City of Ottawa anticipates the community to mature quickly and start off with a highly urbanized built form, particularly in the Town Centre.

Figure 19: Riverside South Secondary Plan Area



The Designation Plan of the community plans for a variety of uses to ensure a complete community/15-minute neighbourhood with a dense Town Centre area and greater densities around O-Train stations. Specific to the immediate area around the subject site, the lands are largely designated as “Town Centre” (TC) as shown in **Figure 20**. The objectives of this designation are to create a dense well-connected neighbourhood with a robust network of sustainable modes of transportation and a civic node on the western edge of the main street that includes a school, a District Park with a community centre and branch of the Ottawa Public Library, realized by this proposal. Lands designated as “Town Centre” (TC) are expected to be between three to twenty-five storeys with setbacks at or below the fourth storey with active frontages. Other maximum heights within the immediate context of the site are shown in **Figure 21**.

Figure 20: Riverside South Secondary Plan Designations around the Subject Site

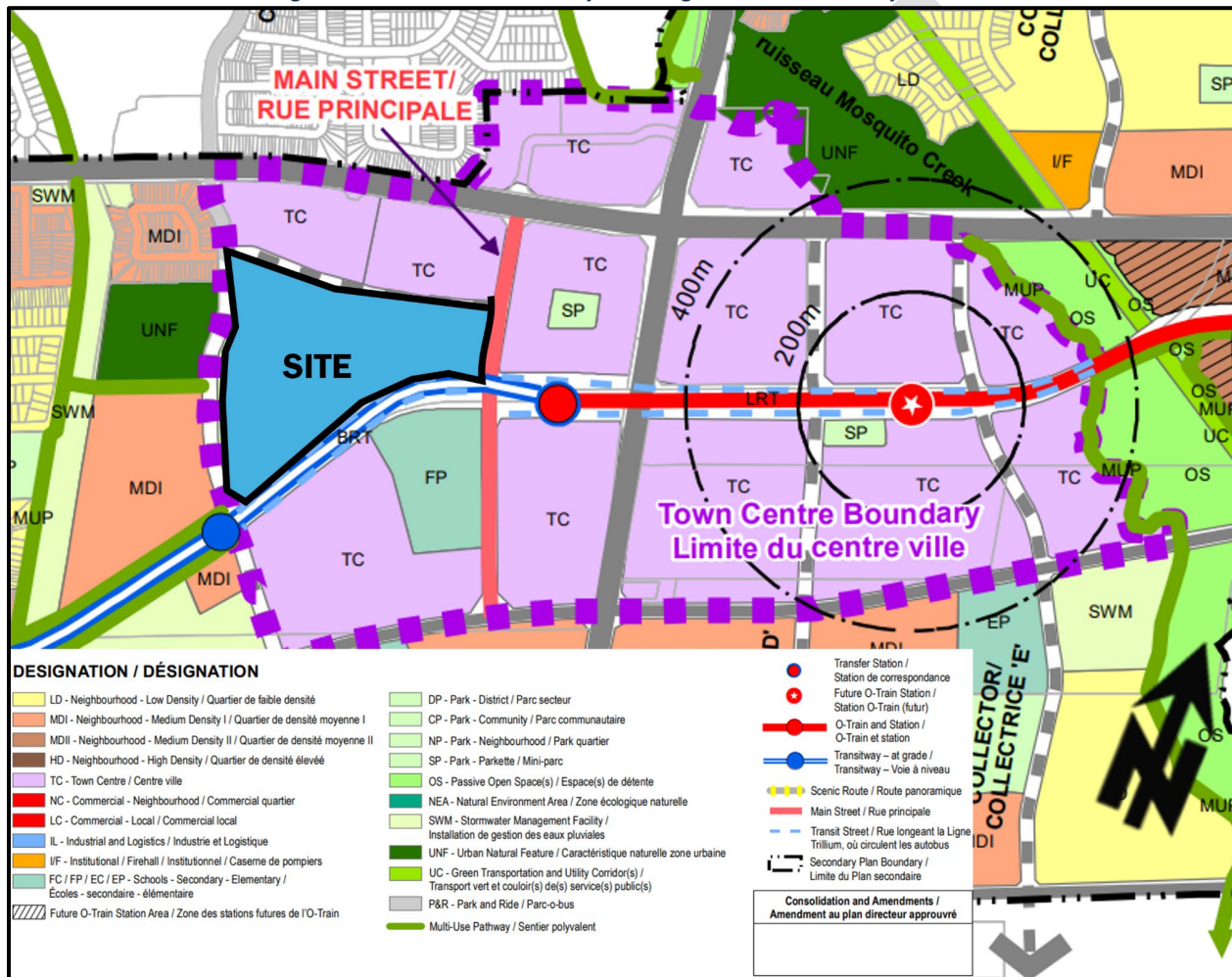
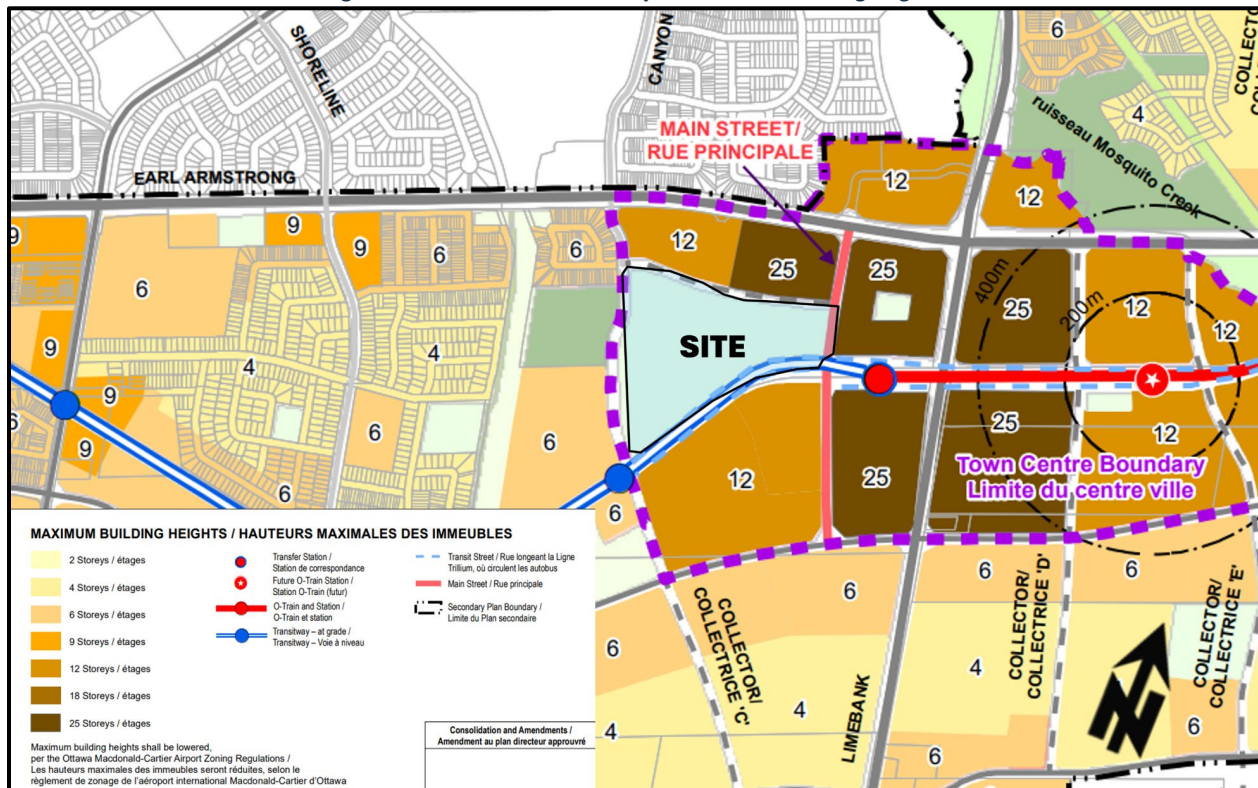


Figure 21: Riverside South Secondary Plan Maximum Building Heights



Other Area Developments

The following section outlines adjacent developments in the general area that were considered in the TIA. The criteria for inclusion of other area developments are either approved developments or developments that have an active planning application that are generally within a 1-km radius of the subject site. **Figure 22** illustrates the location and relative size of relevant other area developments.

1 – 400 Jessie Chenevert Walk

A TIA was submitted by EXP in April 2026 for a 4-storey long-term care home consisting of 256 beds, communal amenity space and 94 surface parking spaces. The proposed development is expected to result in a total of 45 two-way person trips during the AM peak period, 56 two-way person trips during the PM peak period, and 92 trips during the Weekend peak period. Traffic volumes generated by this development will be included in the future background volumes in this TIA report.

2 – 1420 Earl Armstrong Road

A Transportation Impact Assessment was submitted by BA Group in August 2014 proposing a new commercial district totaling approximately 20,000m² in gross floor area with 745 parking spaces. The application has been on hold for many years with no known status update.

3 – 1515 Earl Armstrong Road

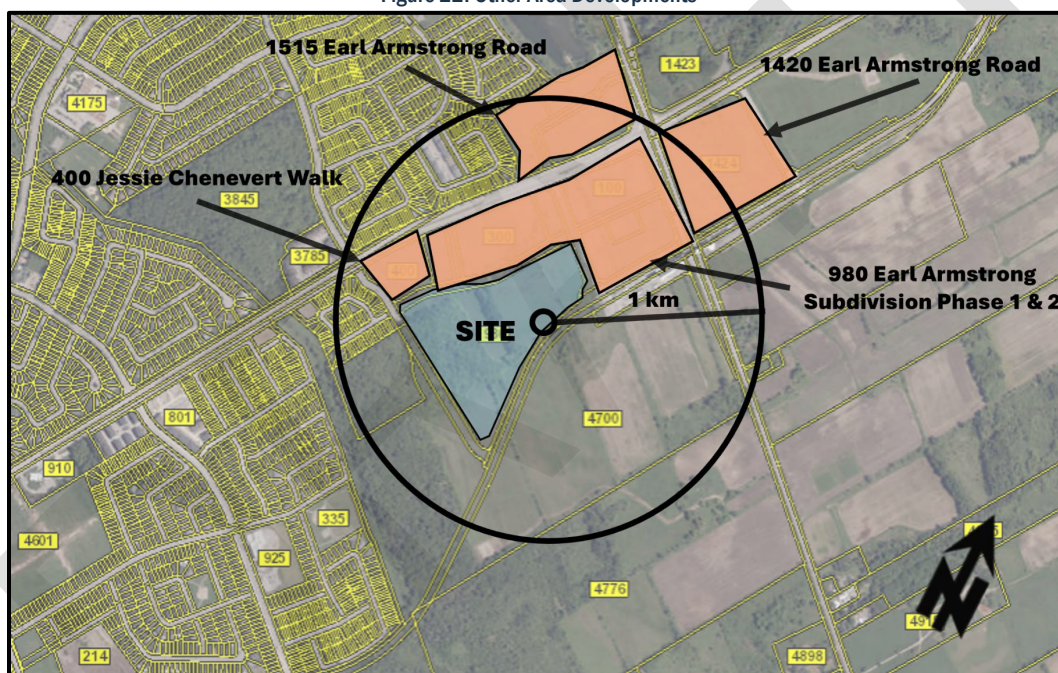
A Transportation Impact Assessment was submitted by Arcadis in December 2022 for a Site Plan Control application to construct a commercial and office development. This development includes three Shopping Plaza's totaling 7347m², two fast food restaurants with two fast food restaurants totaling 634m², a general office totaling 2541m², a grocery store totaling 2337m², and a public road with an 18-metre right-of-way.

The development planned for a build out in 3 phases, with the first 2 phases already complete and assumed to be accounted for in the existing 2026 intersection traffic volumes. Phase 3 forecasts a total of 1754 two-way person trips during the AM peak period and 1677 two-way person trips during the PM peak period. Only the person trips from Phase 1 and Phase 2 will be used to forecast background and other area development growth as Phase 3 is beyond the horizon year of this TIA.

4 – 980 Earl Armstrong Road (Plan of Subdivision)

A Transportation Impact Assessment was submitted in October 2024 by Arcadis for a Plan of Subdivision Application to subdivide the lands municipally known as 980 Earl Armstrong Road. The library and community centre site falls within this subdivision. This subdivision anticipates a 3-phased construction timeline with a final build-out horizon of 2038, beyond the latest horizon year of this TIA. The first two phases include a 430 unit mid-rise residential development, 1,805 units in high-rise residential development, a strip retail plaza totaling 3,716m², and the public library, community centre, and outdoor amenities proposed in this development. Phase 3 of this subdivision anticipates the construction of a high school serving 1,019 students. Phases 1 and 2 forecast a total of 749 two-way person trips during the AM Peak Period and 1,123 two-way person trips during the PM peak period.

Figure 22: Other Area Developments



2.2. Study Area and Time Periods

It is understood that phase 1 of the development (i.e. the library and community centre) will be constructed by 2029. The exact buildout of phase 2 (i.e. outdoor athletic facilities) has not been determined at this time.

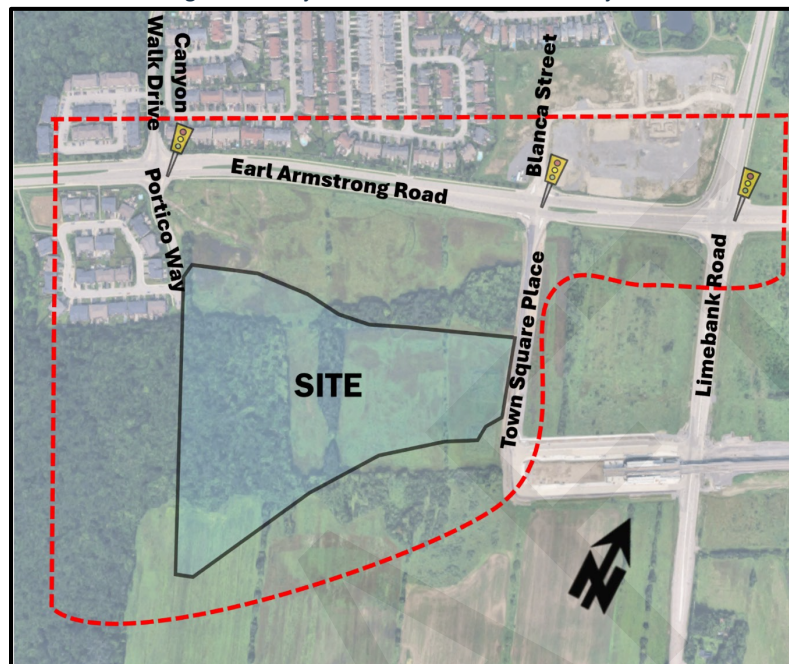
For the purposes of this report, the two proposed phases of the development will be assumed to be fully constructed by 2030. As per the requirements of the TIA Guidelines, the full buildout scenario (2030) and five-years after development buildout (2035) will be analyzed.

As noted previously, the weekday morning and afternoon peak hour traffic volumes are notably higher than the Saturday peak hour volumes. Therefore, the future horizon years analyzed will move forward with only the weekday morning and afternoon peak hour traffic volumes.

Proposed study area intersections are listed below and illustrated in Figure 23.

- Earl Armstrong Road/Portico Way-Canyon Walk Drive (signalized)
- Earl Armstrong Road/Town Square Place-Blanca Street (signalized)
- Earl Armstrong Road/Limebank Road (signalized)
- Future intersections surrounding the development site

Figure 23: Study Area and Intersections to be Analyzed



2.3. Exemption Review

The modules/elements of the TIA process provided in **Table 4** are recommended to be exempt in the subsequent steps of the TIA process, based on the City's TIA guidelines and the subject site.

Table 4: Exemptions Review Summary

Module	Element	Exemption Consideration
4.1 Development Design	4.1.3 New Street Network	Only required for plans of subdivision
4.6 Neighbourhood Traffic Calming	All	The application type (SPC) does not meet the criteria required to complete this section.
4.8 Network Concept	All	Only required for ZBLA applications

3.0 FORECASTING

3.1. Development Generated Travel Demand

Given the unique type of uses present, it was determined that using the ITE Trip Generation Manual would not be sufficient to accurately capture the forecasted trips of all the land uses. ITE also tends to produce trip rates and mode shares based on more car-oriented, suburban contexts, not indicative of the anticipated conditions surrounding this site. Instead, a different methodology was applied which uses a mix of first principles based on data acquired from the City of Ottawa, an in-person traffic count at a similar proxy site, and the ITE Trip Generation Manual. Custom trip rates and mode shares were produced to more accurately reflect a total for site generated trips. Further details on how trip rates were produced for each land use will follow in subsequent sections.

3.1.1. Trip Generation Sources

The site will have multiple uses with alternating programming throughout the calendar year. All uses proposed are listed in **Table 5** below. Only some of the uses are anticipated to be active during the commuter peak periods,

which is the design period for the analysis. Some facilities will operate seasonally, with the heaviest activity during summer months based on programming numbers provided by the City of Ottawa.

Although the subject site has two accesses, one off Jessie Chenevert Walk and the other off Portico Way, the access off Portico Way (which serves the outdoor sports facilities) is expected to generate negligible traffic during weekday peak hours.

Through research into sports leagues, it was determined that the peak activity period for the soccer fields and baseball diamonds will be evenings, beyond the typical PM peak hour period. Additionally, the study team completed a trip generation “proxy” count at a similar recreational facility to help estimate vehicle traffic activity during the weekday peak hour periods (more detail about the proxy count is provided in the next section). It was observed that activity on playgrounds and soccer fields in the PM peak hour was often used by students/ children who either walked or biked to the destination. These observations informed the trip generation process for the proposed development.

With the study analysis focused on the summer season and the weekday peak hour periods, some land uses were exempted since they were expected to be largely inactive during these times.

Table 5: Development Proposal Land Uses, Statistics and Trip Generation Data Source

Land Use	Size/Quantity	Programming	Data Source	Included in Trip Generation?
Library	15,000 sq/ft ²	Year-round	Proxy Site at 363 Lorry Greenberg Drive ¹	Yes
Community Centre	25,000 sq/ft ²	Year-round		Yes
Supporting Staff	Approximately 20	Year-Round	First Principles based on data provided by the City of Ottawa ²	Yes
Summer Camp	140 students	Seasonal	First Principles based on data provided by the City of Ottawa	Yes
Pickleball Court	7	Seasonal	ITE490	Yes
Tennis Court	4	Seasonal	ITE489	Yes
Soccer Field	2	Seasonal	N/A	No, organized league sports predominantly start after 6pm on weekdays (after peak hours) based on research. Some activity witnessed at a proxy site during peak hours showed mostly children who arrived biking/walking.
Baseball Diamond	1	Seasonal		
Basketball Court	1	Seasonal		
Volleyball Court	4	Seasonal		
Playground	1	Seasonal		No, anticipated local trips only / captured via the proxy site count.
Splashpad	1	Seasonal		
Skating Rink	1	Seasonal		No, this will have its predominant trip generation in winter which is anticipated to be less critical than summer operations

1. This land use captures both the visitors and staff associated.
2. Other staff include summer camp counselors and staff of the proposed city councilor's office.

3.1.2. Proxy Count – 363 Lorry Greenberg Drive

Data was obtained from the City of Ottawa outlining estimated AM, PM, and Saturday peak hour trips for the site based on planned programming at the Community Centre and Library, with rough estimates provided for most of the outdoor amenities. Additionally, ITE Trip Generation Manual only provided data for certain uses present on the site and typically represents suburban or low-density conditions, a significant departure from the planned density surrounding this site.

It was decided that an in-person traffic count would provide the best analog to the site. The selected proxy site was the Diane Deans Greenboro Community Centre, Ottawa Public Library – Greenboro Branch, and Greenboro Park/South Gate Baseball field complex located at 363 Lorry Greenberg Drive. This site provides a sufficient analog for the subject site, hosting a community centre and a library within the same building, two soccer fields, two baseball diamonds, an indoor and outdoor basketball court, two tennis courts, an outdoor playground, and splash pad/wading pool. The proxy site is also situated in a similar context to the subject site, within the suburban transect with immediate access to route on OC Transpo's Frequent Bus Network.

Peak Period Observations

Traffic Count observations were conducted on Tuesday, June 16, 2026, with observations taking place between 7:15 AM and 9:15 AM and 3:30 PM and 6:00 PM. Observations are shown in **Table 6**.

Table 6: Peak Hour Trip Counts at the Proxy Site by Mode Share (363 Lorry Greenberg Drive)

Travel Mode	AM Peak Hour		PM Peak Hour	
	Mode Share	Person Trips	Mode Share	Person Trips
Auto Driver ¹	62%	43	59%	112
Auto Passenger	12%	8	12%	22
Transit	4%	3	4%	7
Cycling	1%	1	1%	2
Walking	20%	14	25%	48
Total Person Trips	100%	69	100%	191
1. It was assumed that each automobile was carrying, on average, 1.2 passengers. Therefore, a factor of 0.2 was applied to total Auto-Drivers during peak hour to calculate the number of passengers.				

3.1.3. Subject Site Trip Generation

Library and Community Center Trip Generation

Trip generation rates are based on traffic counts conducted at the proxy site as illustrated in **Table 7**; peak hour person trips were then estimated as shown in **Table 8**. The gross floor area (GFA) of the combined library and community centre was selected as the independent variable as it provides a sufficient analog with both the proxy site and the subject site having the two land uses within a single building. The peak hour was determined using the City of Ottawa traffic counts conducted at Earl Armstrong Road and Limebank Road on January 28, 2026, to approximate timing on the subject site's network. The estimated area of the Ottawa Public Library – Greenboro Branch and Diane Deans Community Centre located at 363 Lorry Greenberg Drive is 58,000 square feet. The area for the library was taken directly from the Ottawa Public Library website and the area for the community centre was the result of a building footprint measurement conducted on Google Earth.

Based on observations of the outdoor amenities at the rear of the proxy site, many of the users during the PM vehicle peak hour were local children who had accessed the site through the neighbourhood's extensive off-street pathway system via active transportation modes. Based on research into leagues that use the outdoor amenities at the proxy site, many of the sporting events begin at 6 PM or later. Therefore, further regional trips by car for field uses are not anticipated to occur during the AM or PM peak hour of the adjacent street for the proxy site and, by extension, the subject site.

Customized mode shares for the site were created based on the City of Ottawa's Transit Oriented Development Mode Share Guidelines. Rationalization for these customizations can be found in **Table 9**. Using these proposed mode shares, a total person trips was derived as shown in **Table 10**.

Table 7: Proxy Site Trip Generation Rates Based on GFA

Land Use	Data Source	Trip Rates Based on GFA	
		AM Peak Hour	AM Peak Hour
Library & Community Centre	Proxy Site at 363 Lorry Greenberg Drive	1.21 per 1,000 ft ²	3.17 per 1,000 ft ²

Table 8: Library and Community Center Person Trip Generation

Land Use	Size Proposed	Person Trips per Hour	
		AM Peak Hour	AM Peak Hour
New Library & Community Centre	40,000 ft ²	48	132

Table 9: Proposed Mode Shares for Library and Community Centre

Travel Mode	Proxy Site Mode Shares		City's TOD Mode Shares	Future Target Mode Share	Land Use Mode Share Rationale
	AM	PM			
Auto-Driver	62%	59%	15%	30%	A reduction in driver mode share from the proxy site is considered reasonable given the stated goals of the Riverside South Secondary Plan to create a pedestrian-oriented activity centre where a majority of trips are made by sustainable modes of transportation.
Auto-Passenger	12%	12%	5%	5%	
Transit	4%	4%	65%	35%	An increase in transit mode share when compared to the proxy site is justified as the subject site is in close proximity to Limebank Station on Line 2 of OC Transpo's LRT Network. It should be noted that the proposed mode share is still below the City's target Transit Oriented Development mode share due to the nature of trips to a community centre or library being local/from the neighbourhood.
Cycling	1%	1%	5%	5%	The cycling and walking mode share increases are considered justified due to the future MUP connections to the site's west side as well as the proposed sidewalk and cycle track facilities on all proposed surrounding roads of the site. The Riverside South Secondary Plan also envisions high density surrounding this site, attracting various short distance trips from the community.
Walking	20%	25%	10%	25%	

Table 10: Library and Community Center Peak Hour Trip Generation Using Proposed Mode Shares

Travel Mode	AM Peak Hour		PM Peak Hour	
	Mode Share	Person Trips	Mode Share	Person Trips
Auto Driver ¹	30%	14	30%	39
Auto Passenger	5%	3	5%	7
Transit	35%	17	35%	46
Cycling	5%	2	5%	7
Walking	25%	12	25%	33
Total Person Trips	100%	48	100%	132

Tennis and Pickleball Trip Generation

The inclusion of the tennis and pickleball courts in the site's trip generation is due to the anticipated non-organized uses of these amenities. Whereas other outdoor amenities such as the soccer fields or the baseball diamonds will likely see heavier usage during recreational leagues, outside of peak hours, users of these racquet sports courts often have greater flexibility in their schedules.

The site proposes four permanent tennis courts and four permanent pickleball courts. An additional three pickleball courts are shown in **Figure 2** as an off-season use for the skating rink when it is not flooded and coincides with the busier summer months.

Using ITE Trip Generation data, it was determined that a total of four tennis courts and seven pickleball courts was the appropriate measure for trip generation. ITE Trip Generation rates for the pickleball court and tennis court uses can be found in **Table 11**.

Table 11: Pickleball and Tennis Court Trip Generation Average Rates from ITE Data

Land Use	Data Source	Number of courts	Trip Rates Based on ITE Data	
			AM Peak Hour	AM Peak Hour
Pickleball Court	ITE 489	7	1.93	4.39
Tennis Court	ITE 490	4	1.93 ¹	4.21
1. Note: AM peak hour average rate for tennis courts was taken from the pickleball AM average rate as there were no studies for AM Tennis courts. It is assumed that the two sports would produce similar rates.				

Using the ITE trip rates, the vehicle trip generation rates were converted to modified person trips by multiplying them by 1.28 to account for typical North American auto occupancy, transit use and non-motorized mode. This modified person trip was then multiplied by the respective land use size to obtain a person trip.

The resultant people trip generation per land use and assumed mode shares are summarized in **Table 12**. It is anticipated that a high percentage of the users of these courts will be local residents using sustainable travel modes and likely coming from closer distances vis transit, walking and cycling.

Table 12: Peak Hour Trip Generation for Pickleball and Tennis Courts using Proposed Mode Shares

Travel Mode	AM Peak Hour		PM Peak Hour	
	Mode Share	Person Trips	Mode Share	Person Trips
Auto Driver	45%	12	45%	27
Auto Passenger	15%	4	15%	9
Transit	10%	3	10%	6
Cycling	15%	4	15%	9
Walking	15%	4	15%	9
Total Person Trips	100%	27	100%	61

Summer Camp Trip Generation

This site will accommodate City of Ottawa summer camps during the summer months. Typically, these programs help parents send their children to a day-long program while they go to work (or for other reasons) and mimic school schedules. Operational hours for these summer camps usually align with the AM and PM commuter peak hours, with some students arriving before or after the typical peak hours. For the purpose of this assessment, it will be assumed that 90% of children will arrive at the site within the AM peak hour of the street and approximately 60% of children will depart the site within the PM peak hour of the street.

The summer camp is envisioned to accommodate 134 students. Unlike school programs, however, these summer camps rely on children to find their own way to the site, be it by being dropped off by parents, taking public transit, walking or biking. It is not anticipated that a school bus system or shuttle system will be provided to support this program. As such, a unique mode share will be developed for this land use. It is also assumed

that a factor of 1.5 children per vehicle drop-off/pick-up will occur, which adjusts for typical Canadian family sizes.

A blended AM and PM mode share similar to the residential TRANS Origin Destination for South Gloucester/Leitrim District was used, assuming that most children getting dropped off to camp will likely live within this district. Mode share trip generation for summer camp operations are shown in **Table 13**.

Table 13: Summer Camp Peak Hour Trip Generation

Travel Mode	Mode Shares AM & PM	AM Peak Hour (Trips/h)			PM Peak Hour (Trips/h)		
		In	Out	Total	In	Out	Total
Total Auto Trips ¹	60%	51	51	102	33	33	66
Auto-Passengers (Parent Drop-off) ¹		76	0	76	0	50	50
Transit	25%	32	0	32	0	21	21
Cycling	5%	6	0	6	0	4	4
Walking	10%	13	0	13	0	8	8
Total Person Trips²	100%	133	0	133	0	88	84
1. Total vehicle trips is based on the number of passengers being dropped off/picked up divided by 1.5 to account for families that have more than one child. 2. Person trips exclude total vehicle trips as they have been captured within the auto passengers.							

Other Supporting Staff Trip Generation

This site will require additional staffing needs due to its seasonal programming, particularly during summer camp operations. According to data obtained from the City of Ottawa, summer camp programming will include an additional 18 staff to be present on site to help with camper drop-off and pick-up. Support staff are anticipated to be coming from further than local/neighbourhood destinations and therefore a higher auto driver mode share is assumed. A blended AM and PM mode share similar to the employment TRANS Origin Destination for South Gloucester/Leitrim District was considered, with an adjustment for how close this development will be to LRT. Other supporting staff trips can be found below in **Table 14**.

Table 14: Other Supporting Staff Trip Generation Based on City of Ottawa Data

Travel Mode	Mode Shares AM & PM	AM Peak Hour (Trips/h)			PM Peak Hour (Trips/h)		
		In	Out	Total	In	Out	Total
Auto Driver	63%	11	0	11	0	11	11
Auto Passenger	5%	1	0	1	0	1	1
Transit	30%	5	0	5	0	5	5
Cycling	1%	0	0	0	0	0	0
Walking	1%	0	0	0	0	0	0
Total Person Trips	100%	18	0	18	0	18	18

Total Site Trip Generation

Total Site Trip Generation was calculated by summing all ins and outs of each mode for library & community centre, pickleball and tennis court, summer camp operations, and supporting staff trip generation. Total site trip generation can be found in **Table 15**.

Table 15: Total Site Trip Generation

Travel Mode	AM			PM		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	78	61	139	67	76	143
Primary Driver Trips	27	10	37	34	43	77
Parent Drop-off	51	51	102	33	33	66
Auto Passengers Total	81	3	84	8	59	67
Public Transit	45	12	57	32	47	78
Cycling	10	2	12	4	16	20
Walking	24	5	29	24	26	50
Total Person Trips ¹	187	32	219	102	190	292
Note: parent drop-off not captured in total person trips						
¹ Total Person Trips are sum of Primary Driver Trips, Auto-passengers total, public transit, cycling, and walking trips.						

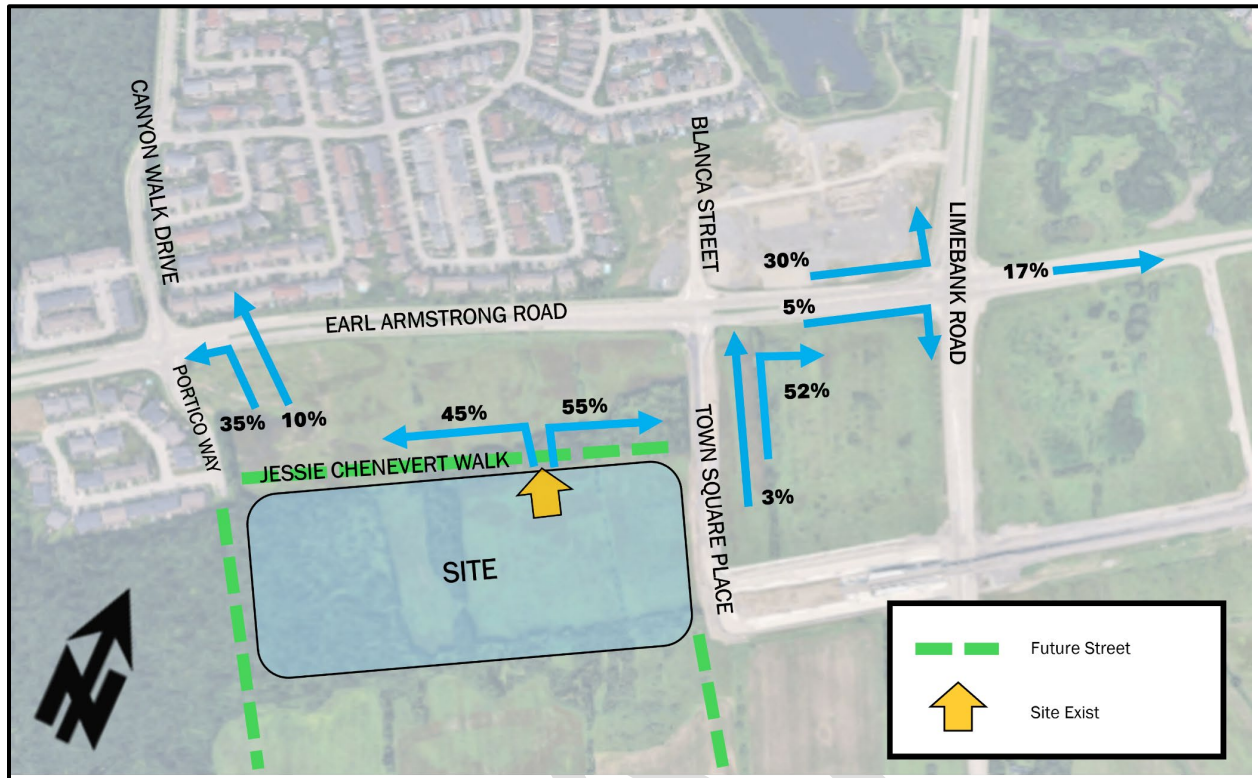
3.1.4. Trip Distribution and Assignment

Based on the total Site Trip Generation, the OD Mode Share Survey, and the location of adjacent arterial and collector roadways and neighbourhoods, the distribution of site-generated traffic volumes has been illustrated to show inbound and outbound trips in **Figure 24** and **Figure 25**, respectively. Based on the location of the access that will be serving the library, community centre, and a majority of the outdoor amenities, it is expected that all inbound and outbound trips will travel along Jessie Chenevert Walk, with a majority of inbound trips entering from Town Square Place and a majority of outbound trips exiting to Town Square Place as well. This is because most trips are expected to come from and go toward Limebank Road, a critical north-south arterial that provides regional connectivity to other areas of the city.

Figure 24: Site Generated Vehicle Traffic Percent Distribution (IN)

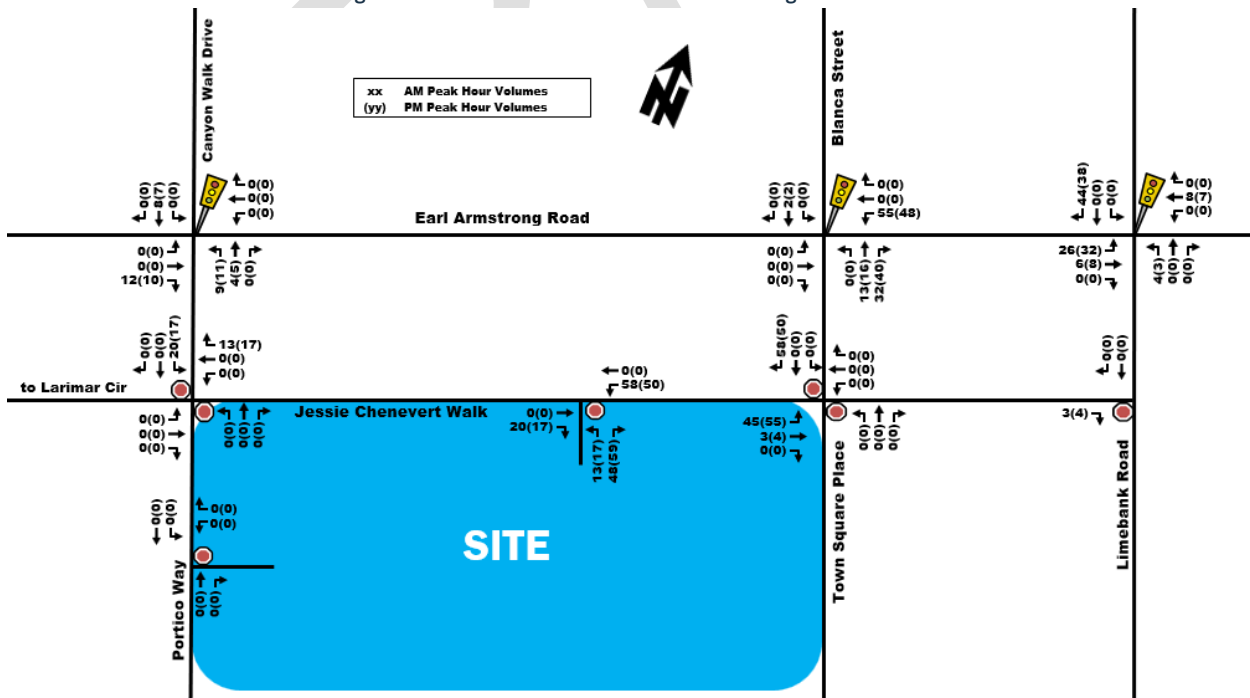


Figure 25: Site Generated Vehicle Traffic Percent Distribution (OUT)



The anticipated total auto trips for the proposed development from Table 15 were then assigned to the road network with the inbound and outbound distributions shown above. The anticipated site-generated traffic at study area intersections is shown in Figure 26 below.

Figure 26: Site-Generated Traffic on the Surrounding Road Network



3.2. Background Network Traffic

3.2.1. Transportation Network Plans

Refer to **Section 2.1.3** for a detailed discussion of planned network changes.

3.2.2. Background Growth

The proposed annual background traffic growth along the major study area roads is summarized in **Table 16**. The growth rates applied are consistent with rates indicated by the 980 Earl Armstrong Road Plan of Subdivision TIA (2024).

Table 16: Earl Armstrong Road and Limebank Road Background Growth Rates

Module	TRANS Model Annual Growth Extraction			
	Eastbound	Westbound	Northbound	Southbound
Earl Armstrong Road	2%	2%	-	-
Limebank Road	-	-	2%	2%

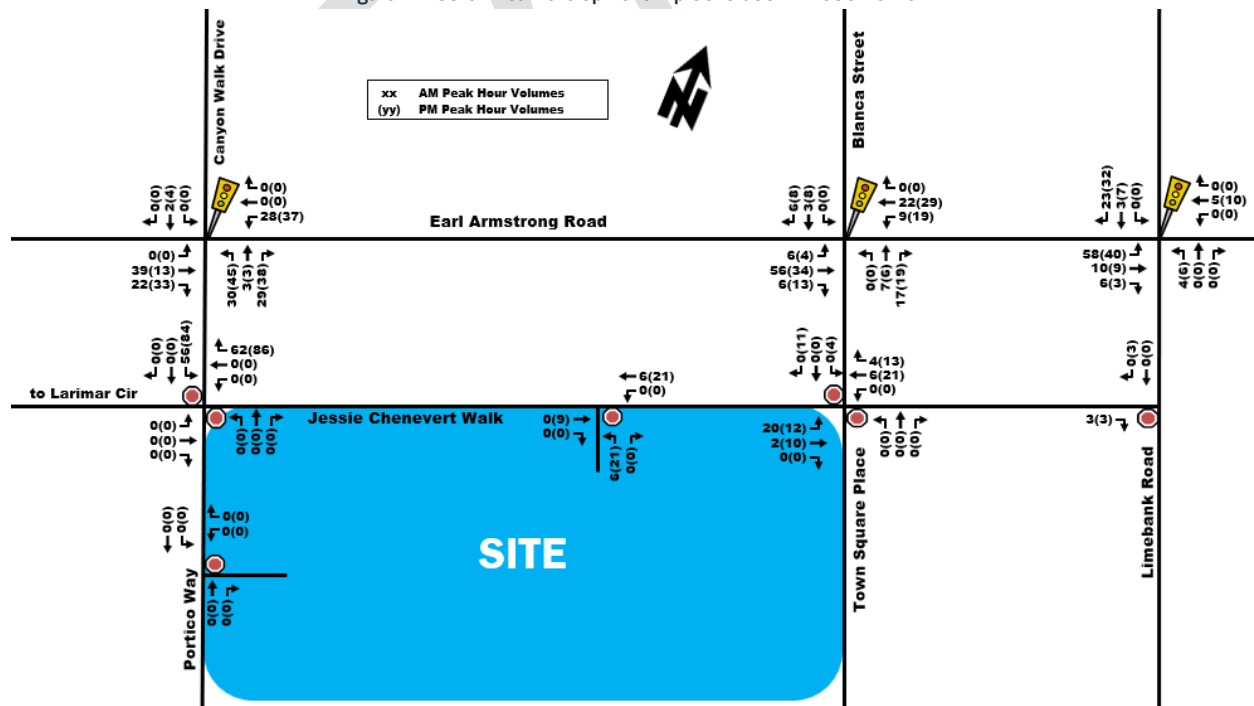
The growth rates shown above will be applied at the following locations:

- All movements at the intersection of Earl Armstrong/Limebank,
- The through movements along Earl Armstrong Road at other study area intersections,
- The through movements along Limebank Road at other study area intersections.

3.2.3. Other Area Developments

As described in **Section 2.1.3**, the development at 400 Jessie Crenevert Way and Phase 1 & 2 of the plan of subdivision at 980 Earl Armstrong Road will be layered on individually to background traffic volumes as illustrated in **Figure 27** and **Figure 28** for the 2030 and 2035 horizon years. Excerpts of anticipated trips from the respective other area developments TIA Reports are provided in **Appendix D**.

Figure 27: Other Area Development Trip Generation - 2030 Horizon



xx AM Peak Hour Volumes
yy PM Peak Hour Volumes

Earl Armstrong Road

Canyon Walk Drive

Blanca Street

to Larimar Cir

Portico Way

Jessie Chenevert Walk

Town Square Place

Limebank Road

SITE

Using the annual growth rates from **Table 16**, and the adjacent development traffic volumes in **Figure 27** and **Figure 28**, the 2030 and 2035 future background traffic volumes can be calculated as shown in **Figure 29** and **Figure 30** respectively.

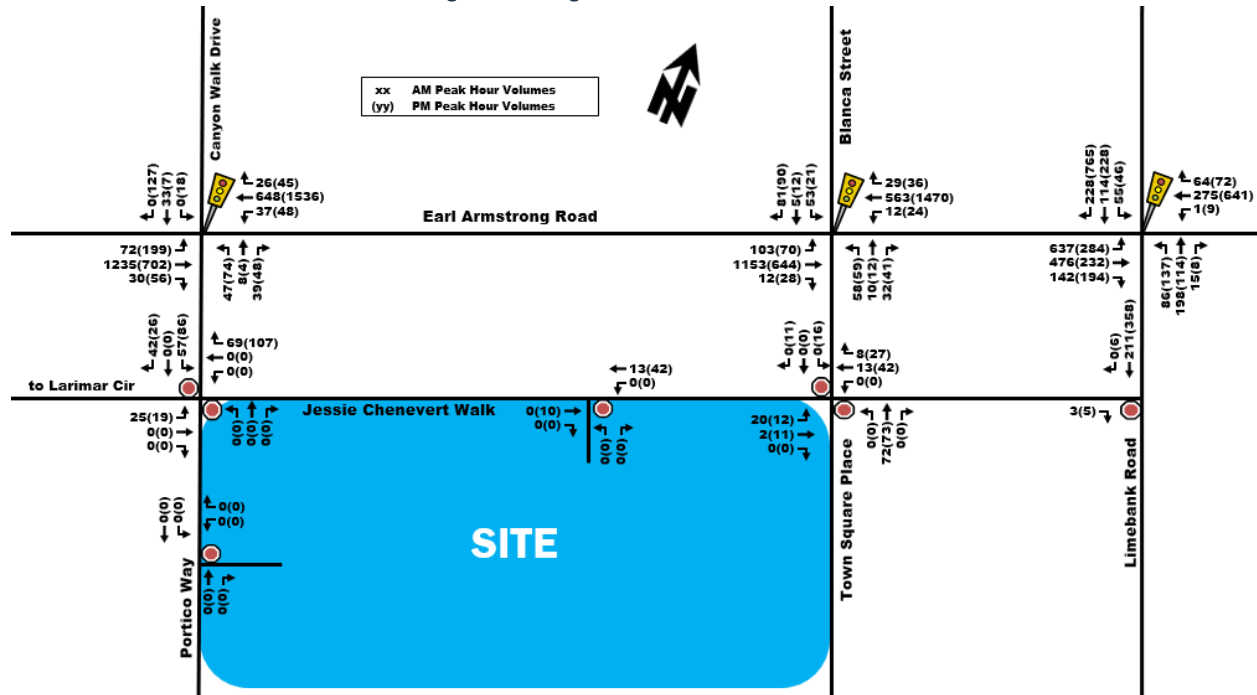
The map shows the intersection of Earl Armstrong Road, Blanca Street, and Limebank Road. A large blue area labeled "SITE" is located south of Earl Armstrong Road and west of Blanca Street. The map includes traffic volume data for AM and PM peak hours at various intersections and along road segments. A north arrow is present in the upper right quadrant.

Legend:
 xx AM Peak Hour Volumes
 (yy) PM Peak Hour Volumes

Key Locations and Road Segments:
 - Canyon Walk Drive (top left)
 - Portico Way (bottom left)
 - Town Square Place (bottom center)
 - Limebank Road (bottom right)
 - Earl Armstrong Road (horizontal road)
 - Blanca Street (vertical road)
 - Jessie Chenevert Walk (road segment within the site area)

Traffic Volume Data (AM/PM):
 - Canyon Walk Drive: 127/18, 26/45, 593/1403, 37/48
 - Portico Way: 25/19, 0/0, 0/0, 0/0, 0/0, 0/0
 - Town Square Place: 20/12, 2/10, 0/0, 0/0, 0/0, 0/0
 - Limebank Road: 3/3, 0/0, 0/0, 0/0
 - Earl Armstrong Road (Northbound): 72/199, 1128/633, 25/46, 42/26, 0/0, 56/64
 - Earl Armstrong Road (Southbound): 41/54, 7/3, 39/48, 62/86, 0/0, 0/0, 0/0
 - Blanca Street (Westbound): 81/90, 3/0, 53/21, 29/36, 516/1346, 9/19
 - Blanca Street (Eastbound): 211/702, 1/0, 203/50, 58/66, 251/583, 1/8
 - Limebank Road (Northbound): 585/256, 435/210, 130/178, 0/3, 211/358, 78/124, 181/104, 14/7

Figure 30: Background Traffic Volumes – 2035



3.2.5. Total Projected Traffic Volumes

The site generated traffic volumes in Figure 26 can then be superimposed onto the future background 2030 and 2035 in Figure 29 and Figure 30 to estimate the total projected 2030 and 2035 horizon years traffic volumes as shown in Figure 31 & Figure 32.

Figure 31: Total Network Volume – 2030

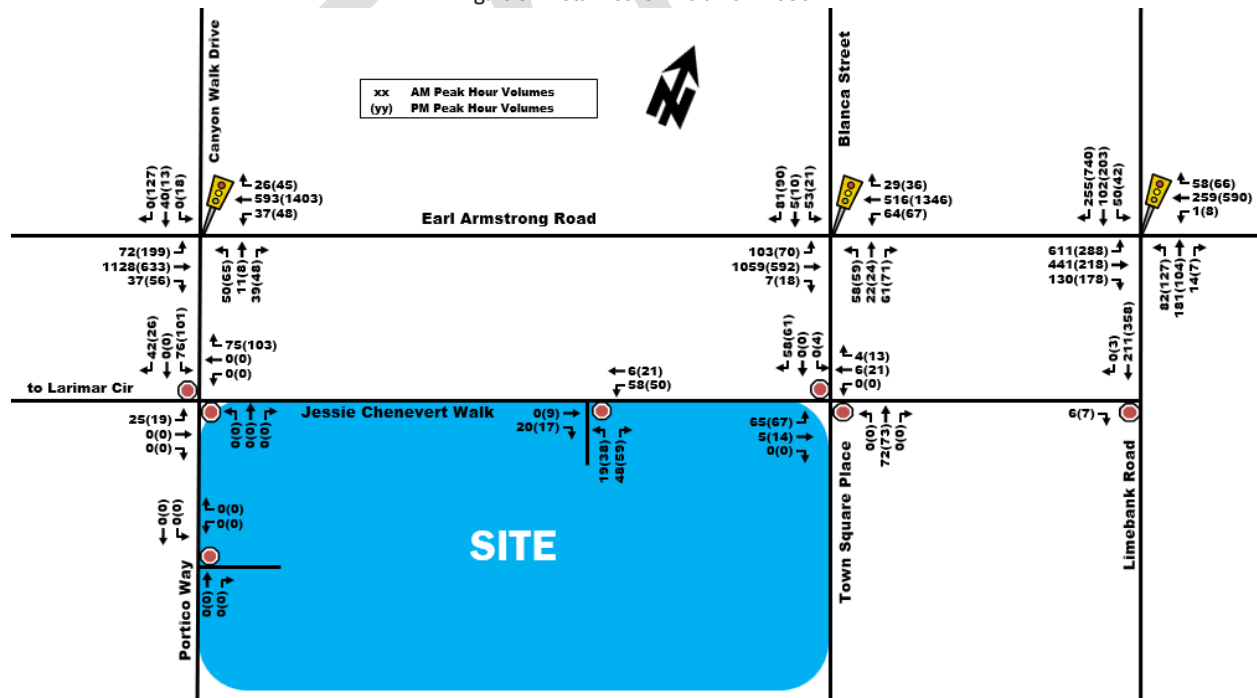
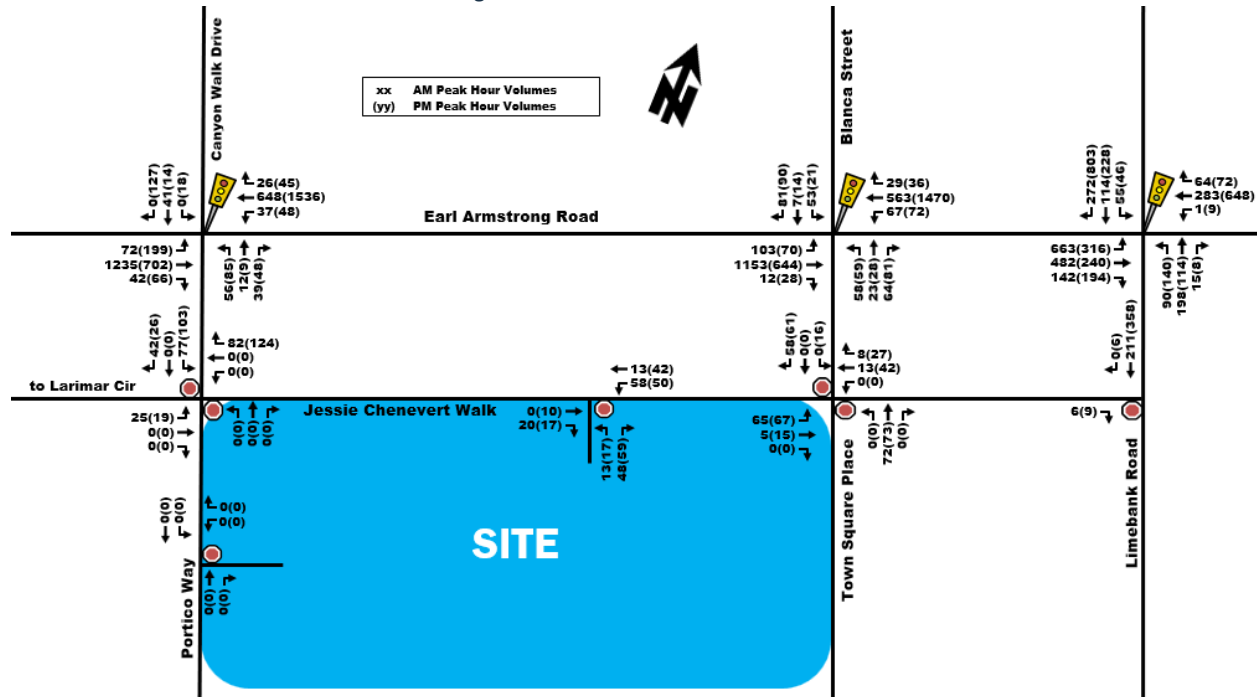


Figure 32: Total Network Volume – 2035



3.3. Demand Rationalization

The Riverside South Secondary Plan contemplates significant future density and a diverse use within the immediate context of the site as shown in **Figure 20** and **Figure 21**. The site is expected to serve this new dense community with its indoor and outdoor amenities. It is forecasted that many trips will be local or neighbourhood trips, with a higher dependency on active modes of transportation.

Presently, Earl Armstrong Road and Limebank Road have four-lane cross-sections within the study area. Based on forecasted total projected 2035 traffic volumes which forecast up to 1,630 vehicles per hour per direction (peak), there should be sufficient capacity to accommodate the future demands plus the new centre. To accommodate additional growth in the long term, there will be an extensive buildout of the road network within the Riverside South Community, including a new east-west major collector to the south of the site and two new collectors immediately to the east and west of the site.

Future improvements to the LRT Trillium Line 2 identified in the City of Ottawa's Transportation Master Plan to improve headways on the line from 12-minutes to 10-minutes will support development in Riverside South and associated ridership growth accommodating approximately 420 additional rides per hour. This will likely reduce the number of auto-driver trips during peak hours on the adjacent road network.

It is anticipated that the network will operate well within the proposed time horizon of 2030 when this project completes its build out and beyond.

4.0 STRATEGY

4.1. Development Design

4.1.1. Design for Sustainable Modes

Auto and Bicycle Parking Areas

Vehicle parking is proposed to be provided in two surface parking lots, where one lot will be accessed via Jessie Chenevert Walk and serves the library and community centre, while the other lot will be accessed via Portico

Way and serves the outdoor athletic facilities. It is noted that public on-street laybys are also proposed along both Town Square Place and Jessie Chenevert Walk for vehicle parking as needed.

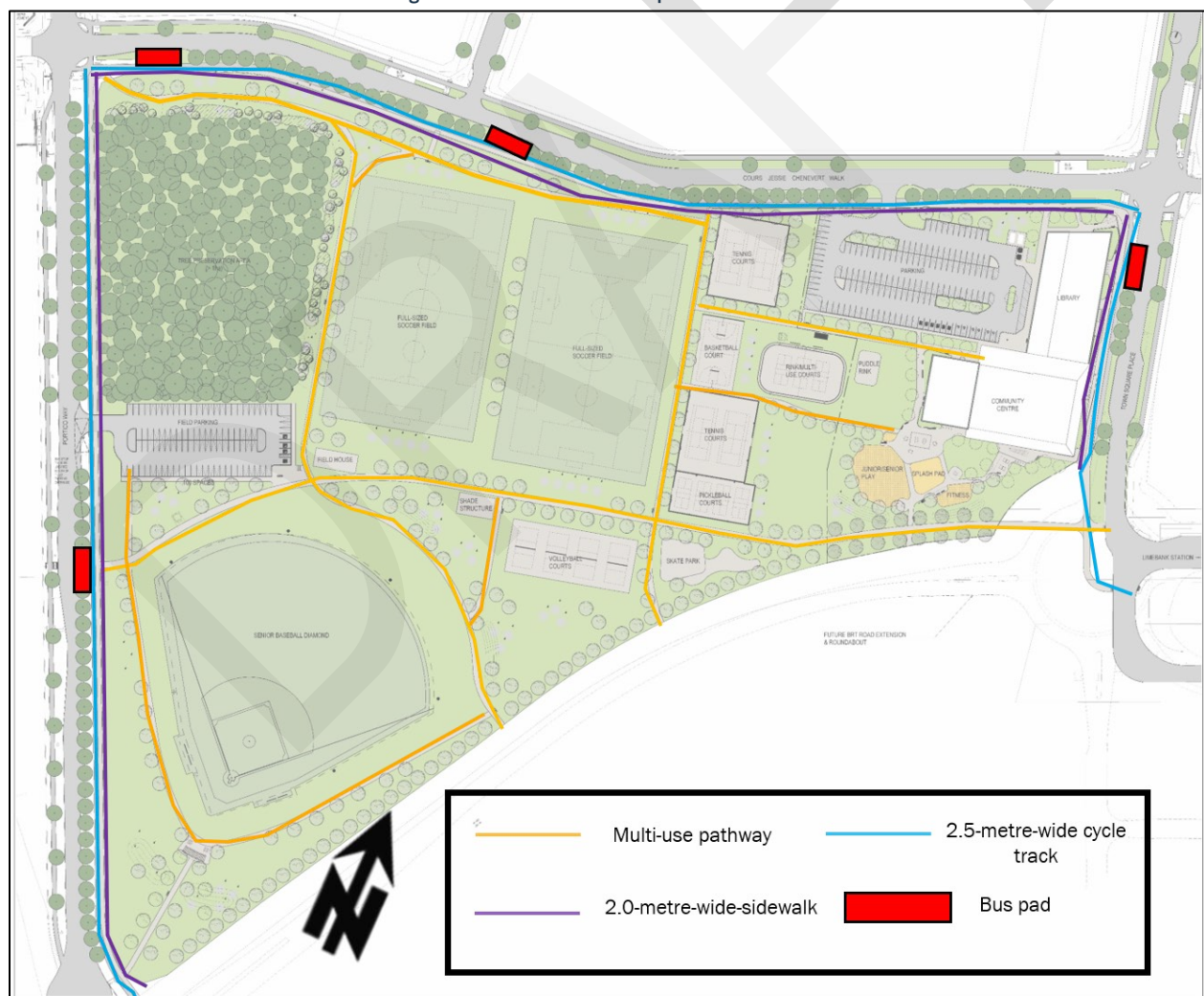
For bike parking, all proposed spaces are expected to be outdoor and mostly surrounding the library and community center building where they are near pathways and MUPs.

Pedestrian/Cycling Routes and Facilities

The proposed street network surrounding the site has not been constructed yet. The anticipated design of the streets is based on the plan of subdivision as shown in **Figure 10** and **Figure 11** and in the Riverside South Secondary Plan. As such, each frontage proposes new pedestrian and cycling facilities. Additionally, the subject site proposes internal walkways /multi-use pathways that permeate the site providing seamless and barrier-free access to and from all boundary-streets. The proposed cross-site connections and abutting active transportation infrastructure are shown in **Figure 33**, which consist of the following:

- 2.5-metre-wide cycle-tracks on the north, east, and west frontages of the site
- 2.0-metre-wide sidewalks on the north, east and west frontages of the site
- Multi-use pathway connections within the site
- Sheltered and accessible transit stops on bus pads on streets surrounding the site

Figure 33: Planned Active Transportation Facilities



Location of Transit Facilities

The subject site has existing bus stops and an LRT station within its immediate context as per the bus stop locations shown in **Figure 6**. On the most recent site plan, transit stops with bus pads are contemplated around the site at the locations shown in **Figure 33**.

4.1.2. Circulation and Access

Given the proposed uses of the site, a robust network of multi-use pathways is proposed for users to be able to access all outdoor amenities provided from all boundary streets. These multi-use pathways will be well-lit to allow for consistent use throughout the day.

Vehicle circulation was reviewed at the Phase 1 site access along Jessie Chenvert Walk, as waste collection vehicles and fire trucks may need to access the lot. A garbage enclosure is proposed in the northeast corner of the Phase 1 parking lot. Based on the truck turns shown in **Appendix G**, there are no concerns or potential conflicts anticipated for a large HSU truck to access and circulate through the parking lot.

4.2. Parking

The development proposes 138 spaces in Phase 1 and 100 spaces in Phase 2 totaling 238 across the entire development. The parking rates for this site are calculated based on the City of Ottawa Zoning By-law 2026-50, Section 601-614. The following is noted:

- The site is situated within the Suburban Transect/Area E, per Schedule A1 in Part 16 – Area-wide Schedules of the new Zoning By-law.
- There are no minimum parking requirements.
- Under the new City of Ottawa Zoning By-law 2026-50, the city has implemented parking maximums on sites within 600m of a rapid transit station. However, as the subject site's land uses are not included in the listed land use types of the Zoning By-Law, they are assumed to be excluded from the requirement for maximum parking spaces.
- Bicycle parking spaces will be provided around the library and community centre building with access from the cross-site multi-use pathways and the proposed cycle tracks. Per Section 613, Bicycle Parking Provisions, the applicable bicycle parking rates require 10 spaces minimum, of which 2 must be inclusive spaces, with an additional 1 space per 100m² above 500m². With site grossing approximately 3,760m², the required number of bicycle spaces is 45 spaces.

Therefore, as the site is proposing to provide 138 vehicle parking spaces to support the library and community centre, along with 100 spaces for the outdoor amenity facilities and 48 bike parking spaces, the number of vehicle and bike parking spaces are expected to meet the requirements of the Zoning By-Law.

4.3. Boundary Street Design

Site boundary streets are expected to be constructed in the future, which includes Jessie Chenevert Walk at the north frontage, Town Square Place at the east frontage, and an extension of Portico Way at the west frontage. All three streets are expected to be constructed with the following features:

- 1 vehicle travel lane in each direction
- Sidewalk facilities on both sides of the road with an anticipated width of at least 2.0m
- Unidirectional cycle tracks on both sides of the road with an anticipated width of 2.0m
- Expected speed limit of 40km/h on both Town Square Place and Jessie Chenevert Walk and 50km/h on Portico Way
- Bus stops with curbside platform and shelters on all road segments. Buses are expected to travel in mixed traffic conditions

- Lay-by parking areas along Town Square Place
- Collector road classifications for all roads

A Multi-Modal Level of Service (MMLOS) analysis was conducted for the boundary streets using the new City of Ottawa's MMLOS Analysis Tool and Guidelines. The analysis is summarized in **Table 17**, with detailed analysis sheets provided in **Appendix F**. The table identifies the target LOS, based on the road segment's location within 600m of a rapid transit station or within a Hub Policy Area.

Table 17: MMLOS Segment Analysis Results

Road Segment	Level of Service (Majority Segment, Critical Segment)							
	Pedestrian		Bicycle		Transit		Public Realm	
	PLOS	Target	BLOS	Target	TLOS	Target	PRLOS	Target
Jessie Chenevert Walk (between Portico and Town Square)	A, A	A	A, A	B	C	E	C	N/A
Portico Way (between Jessie Chenevert and south limit)	A, A	A	A, A	B	C	E	B	N/A
Town Square (between Jessie Chenevert and south limit)	A, A	A	A, A	B	C	E	B	N/A

With the anticipated future facilities along the proposed boundary roads of the site, it is anticipated that the pedestrian, bicycle and transit MMLOS targets would be met. It is noted that the public realm target LOS typically relies on analysis of existing conditions, which is not available in this case.

4.4. Access Intersection Location

4.4.1. Location and Design of Access

Vehicle Access

The site proposes two vehicle accesses; one located along the future Jessie Chenevert Walk, approximately 100m west of Town Square Place, while the other is located along the future extension of Portico Way, approximately 170m south of the future Jessie Chenevert Walk.

Throat Length

The Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads, Chapter 8 (Access) provides guidelines for clear throat length. Clear throat lengths are recommended for accesses onto/off of arterial and collector roads. TAC Table 8.9.3 suggests a minimum clear throat length for a development of this size exiting onto a collector road such as Jessie Chenevert Walk of 8m. Both site accesses meet the recommended throat length.

Access By-Law

The City of Ottawa's Access By-law 2026-139, Section 17.1a requires any access to a parking lot to not exceed 9m in width when measured at the highway line and not exceed 19 metres in width when measured at the curblineline or roadway edge. The site accesses are expected to meet this requirement.

Additionally, Section 3.1.5.1 of the by-law requires the grade of any part of an access shall not be less than 2% and not exceed 8% which the site will comply with.

4.5. Transportation Demand Management (TDM)

4.5.1. Context for TDM

During the summer months, it is expected that the site will likely be accessed in a similar way as a school, with the highest number of trips during both the AM and PM peak hours for camper pick up and drop off. Support staff, such as camp counselors and library/community centre staff will also contribute to the AM/PM peak period trips. Other users participating in events, programming, or meeting with the local councillor are likely to access the site throughout the day, with a heavier influence on PM trips.

Sections 0 and **3.1.4** outline how many trips are anticipated for the site broken down by mode and the anticipated location of where these trips are coming from/going to based on the 2011 OD TRANS Survey for Gloucester-Leitrim. As this site is within 600m of the existing Limebank rapid transit station and intended to be a central piece of civic infrastructure for the Riverside South neighbourhood, it is a great candidate for transit-oriented trips. Furthermore, the nature of the site's use means that users will likely be from the local community and therefore, use more sustainable/active transportation modes to access the site.

4.5.2. Need and Opportunity

With investments in rapid transit within walkable distance, the site has a good opportunity to levy the service improvements on Line 2 – Trillium Line and help reduce its environmental footprint and congestion throughout the city. A strong focus on TDM measures to encourage sustainable active mode shares is highly beneficial.

4.5.3. TDM Program

The two respective TDM checklists for non-residential uses have been provided in **Appendix G** and are summarized below.

The TDM Supportive Development Design and Infrastructure Checklist

- Eight (8) of ten 'Required' measures related to walking and cycling (facilities and bicycle parking) and vehicle parking are anticipated to be satisfied or are not applicable to the site.
- Twelve (12) of sixteen (16) 'Basic' measures related to walking and cycling, transit, ridesharing and parking are anticipated to be satisfied or are not applicable to the site.
- Two (2) of the eleven (11) candidate 'Better' measures are also proposed or are non-applicable, including:
 - Dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters are provided.
 - A permanent bike repair station with commonly used tools will be provided.

The TDM Supportive Development Measures Checklist

- Five (5) out of ten (10) 'Basic' measures related to walking, cycling, transit, parking and TDM marketing will likely be satisfied or are not applicable. The measures are listed below, where and asterisk denotes effective tools to encourage the use of sustainable modes.
 - Display local area maps with walking/cycling access routes and key destinations at major entrances.
 - Display relevant transit schedules and route maps at entrances.
 - Provide online links to OC Transpo and STO information.
 - *Designate an internal coordinator, or contract with an external coordinator.
 - *Provide a multimodal travel option information package to new/relocating employees and students.
- Two (2) out of twenty-six (26) 'Better' related to TDM Program Management and TDM Marketing will likely be satisfied. The measures are listed below, where and asterisk denotes effective tools to encourage the use of sustainable modes.

- Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress.
- Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games).

4.6. Neighbourhood Traffic Management

Section exempted – refer to **Section 2.3**.

4.7. Transit

4.7.1. Transit Capacity

As per **Table 15**, the proposed development projects between 57 and 78 two-way transit trips during the AM and PM peak hours, respectively. The trains operating on Line 2 have an approximate capacity of 420 passengers per train with 5-trains per hour per direction during peak hours. The number of transit trips anticipated by the site during the peak hours are equivalent to approximately 14% of a single LRT train during the AM peak hour and 19% during the PM peak hour.

Based on the latest site plan, there will be a direct pedestrian connection to Limebank Station across the street from the southeast corner of the site. As discussed in Section 3.3, the City of Ottawa's Capital Infrastructure Plan plans to double the track for parts of Line 2 – Trillium Line to increase headways from every 12 minutes to every 10 minutes. This will further add to the reliability of the transit connectivity for site users and surrounding community.

4.7.2. Transit Priority

As detailed in **Section 2.1.3**, the City of Ottawa future plans include the provision of a new transitway along the south boundary of the site. The construction of this corridor is expected to be beyond the horizon years evaluated for this site. However, this connection is expected to further improve transit usage for the community.

4.8. Review of Network Concept

As detailed in **Section 2.1.3**, the number of auto and transit trips anticipated to be generated by the proposed development are up to approximately 77 (primary drivers) and 78 peak hour trips, respectively. As discussed in **Section 4.7**, the transit trips are expected to be well accommodated by the existing transit services. Driver trips are reviewed in more detail in **Section 4.9.3**. However, based on the number of trips, which is equivalent to approximately 1.3 vehicles during peak hours, impacts to the road networks and intersections are not expected to be significant. Therefore, the development is not expected to trigger a need to change the City of Ottawa's TMP concepts for the auto or transit networks.

Projected 2035 peak hour traffic volumes were illustrated in **Figure 32**. Based on the volumes of the planned surrounding roads (i.e. Portico Way, Town Square Place and Jessie Chenevert Walk), their classification as collector roads is considered appropriate, as two-way volumes are not expected to exceed the 300 vehicles during peak hour threshold indicated in the TIA Guidelines.

On Earl Armstrong, which is classified as an arterial road, peak hour traffic volumes are anticipated to be up to approximately 630 vehicles per hour per lane in the westbound direction and 815 vehicles per hour per lane in the eastbound direction. These volumes are in line with typical thresholds of an arterial road, which usually fall between 800 and 1,000 vehicles per hour per lane.

4.9. Intersection Design

4.9.1. Intersection Control

The study area existing traffic signal controls along Earl Armstrong Road are expected to remain in the future. As per the findings of the 980 Earl Armstrong's Plan of Subdivision TIA, planned new roads surrounding the site are expected to provide two-way stop-control at the new intersections, which are expected to consist of the following:

- Portico/Jessie Chenevert
- Town Square/Jessie Chenevert
- Limebank/Jessie Chenevert

Both site accesses off of Jessie Chenevert Walk and Portico Way are expected to provide stop control for vehicles exiting the site.

4.9.2. Intersection Design

An MMLOS analysis was conducted for signalized intersections in the study area using the 2025 MMLOS Guidelines. The analysis results are summarized in **Table 18**, with detailed analysis sheets provided in **Appendix F**. The analysis was conducted for existing and future (total projected 2035) conditions, where the only anticipated variable between the two time periods is the change in traffic volumes and traffic signal phasing, which results in no change or a minor change in the results.

Table 18: MMLOS Signalized Intersection Analysis Results

Intersection	Intersection Multi-Modal Level of Service – Existing (Future)							
	Pedestrian		Bicycle		Transit		Auto	
	PLOS	Target	BLOS	Target	TLOS	Target	AutoLOS	Target
Earl Armstrong/Portico	D (D)	A	D (D)	A	C (C)	E	B (B)	E
Earl Armstrong/Town Square	C (C)	A	D (D)	A	B (C)	E	A (A)	E
Earl Armstrong/Limebank	E (E)	A	E (E)	A	D (E)	E	D (E)	E

Note: Red font indicates that the respective minimum desirable LOS target is not met.

A discussion of analysis results for each travel mode is provided below.

Pedestrian

None of the signalized study area intersections meet the LOS target 'A' for pedestrians. This LOS is largely affected by the number of lanes that pedestrians must cross on each leg of the intersection. In this case, Earl Armstrong Road is an arterial road with a wide cross-section that is required to serve a high traffic volume. Therefore, reducing the number of crossing lanes to meet the PLOS target is not realistic.

Bicycle

None of the signalized study area intersections meet the LOS target 'A' for bicycle. This is primarily due to the type of cycling facility provided at the intersections, which consists of painted bike lanes. In order to meet the BLOS target, cycle tracks with formalized crossrides at the intersections would be required.

Transit

There are no transit lanes anticipated along Earl Armstrong Road, therefore, transit is anticipated to continue travel in mixed traffic lanes in the future. The TLOS targets are expected to be met.

Auto

Based on future traffic operations at the study area intersections, which are reviewed in **Section 4.9.3**, the auto LOS is expected to be met at the three intersections.

4.9.3. Intersection Performance

Synchro 12 Trafficware was used to analyze intersection performance of intersections within the study area. Critical movements at each of the intersections were assessed based on either the movement with the highest volume-to-capacity ratio (for signalized intersections), or the movement experiencing the highest average delay (for unsignalized intersections). Signalized intersections' results reflect the Synchro analysis method, while HCM 7th Edition was used to reflect the analysis results of any unsignalized intersection.

It should also be noted that, as per the TIA Guidelines, the Peak Hour Factor (PHF) used for analysis was 0.90 in existing conditions and 1.0 in all future scenario conditions. A queueing analysis using Synchro and SimTraffic was also conducted at the site access to identify any potential future queueing concerns at the existing southbound left-turn lane. All Synchro and SimTraffic report outputs for existing and future conditions have been provided in **Appendix H**.

As per the planned future conditions, all future scenarios included three new unsignalized intersections along Jessie Chenevert Walk at Portico Way, Town Square Place, and Limebank Road, with two-way stop control analyzed at these intersections. The two site accesses are also modeled in the two total projected horizons. However, as per the site trip generation, vehicle trips at the Portico Way access are expected to occur outside of the morning and afternoon peak hours. As such, the Portico Way access was excluded from the analysis results.

Existing Conditions

The existing conditions analysis uses peak hour traffic volumes from **Figure 7**, with results summarized in **Table 19** below.

Table 19: Intersection Performance with Existing Traffic Volumes

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LOS	max. v/c or avg. delay (s)	Movement	Delay (s)	LOS	v/c
Portico/Canyon Walk/Earl Armstrong (S)	A(B)	0.42(0.69)	EBT(WBT)	8.8(13.1)	A(B)	0.40(0.67)
Town Square/Blanca/Earl Armstrong (S)	A(A)	0.53(0.53)	EBT(WBT)	10.1(8.7)	A(A)	0.49(0.51)
Limebank/Earl Armstrong (S)	B(F)	0.70(1.04)	EBL(SBR)	25.5(44.5)	A(D)	0.58(0.87)

Note: Analysis of signalized intersections assumes a PHF of 0.90 and a saturation flow rate of 1800 veh/h/lane.

As shown in **Table 19**, the intersections 'as a whole' operate acceptably with LOS 'D' or better during peak hours. The critical movements also operate acceptably, with the exception of the southbound right-turn at the Limebank/Earl Armstrong intersection, which operates at capacity during the afternoon peak hour. The movement serves a significant 630 vehicles during the peak hour.

Future Background 2030 Conditions

The future background 2030 analysis uses peak hour traffic volumes from **Figure 29**, with results summarized in **Table 20** below.

Table 20: Intersection Performance with 2030 Future Background Volumes

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LOS	max. v/c or avg. delay (s)	Movement	Delay (s)	LOS	v/c
Earl Armstrong/Portico/Canyon Walk (S)	A(B)	0.48(0.64)	EBT(WBT)	11.1(11.9)	A(B)	0.45(0.62)
Earl Armstrong/Town Square/Blanca (S)	A(A)	0.53(0.52)	EBT(WBT)	10.1(8.5)	A(A)	0.49(0.50)
Earl Armstrong/Limebank (S)	C(E)	0.72(0.95)	EBL(SBR)	25.4(42.0)	A(D)	0.60(0.86)
Jessie Chenevert/Larimar/Portico (U)	A(A)	0(0)	NB(NB)	0(0)	A(A)	-
Jessie Chenevert/Town Square (U)	A(A)	9.6(9.5)	EB(EB)	2.9(3.9)	A(A)	-
Jessie Chenevert/Limebank (U)	A(A)	8.9(9.3)	EB(EB)	0.1(0)	A(A)	-

Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.

As shown in **Table 20**, the study area signalized intersections operate at LOS 'D' or better, with critical movements operating at LOS 'E' or better during peak hours. The intersections operate similar to or better than existing conditions due to optimization of signal phasing at the intersections and the increase of PHF to 1.0. The unsignalized intersections operate at LOS 'A' during the peak hours.

Future Background 2035 Conditions

The future background 2035 analysis uses peak hour traffic volumes from **Figure 30**, with results summarized in **Table 21** below.

Table 21: Intersection Performance with 2035 Future Background Volumes

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LOS	max. v/c or avg. delay (s)	Movement	Delay (s)	LOS	v/c
Earl Armstrong/Portico/Canyon Walk (S)	A(B)	0.47(0.64)	EBT(WBT)	11.0(12.5)	A(B)	0.43(0.62)
Earl Armstrong/Town Square/Blanca (S)	A(A)	0.54(0.52)	EBT(WBT)	10.2(9.1)	A(A)	0.49(0.50)
Earl Armstrong/Limebank (S)	C(E)	0.71(0.99)	EBL(SBR)	25.4(48.0)	B(D)	0.61(0.90)
Jessie Chenevert/Larimar/Portico (U)	A(A)	0(0)	NB(NB)	0(0)	A(A)	-
Jessie Chenevert/Town Square (U)	A(A)	9.2(9.8)	EB(EB)	3.4(5.3)	A(A)	-
Jessie Chenevert/Limebank (U)	A(A)	8.9(9.4)	EB(EB)	0.1(0.1)	A(A)	-

Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.
Note: All signal cycle lengths unmodified except the PM plan for Limebank/Earl Armstrong, which was extended from 112.8s to 120s.

The study area intersections are all found to operate acceptably with similar results to the future background 2030 conditions. At signalized intersections, signal phase times were optimized in Synchro.

It should be noted that the critical southbound right-turn movement at the intersection of Earl Armstrong/Limebank operates near capacity during the afternoon peak hour. The signal cycle length was increased from the existing uncoordinated 112.8 second cycle length to 120 second cycle length for the afternoon peak hour to improve operations.

Total Projected 2030 Conditions

The future background 2035 analysis uses peak hour traffic volumes from **Figure 31**, with results summarized in **Table 22** below.

Table 22: Intersection Performance with 2030 Total Volumes

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LOS	max. v/c or avg. delay (s)	Movement	Delay (s)	LOS	v/c
Earl Armstrong/Portico/Canyon Walk (S)	A(C)	0.60(0.72)	EBT(WBT)	13.3(15.3)	A(B)	0.56(0.70)
Earl Armstrong/Town Square/Blanca (S)	A(A)	0.57(0.57)	EBT(WBT)	10.2(9.0)	A(A)	0.53(0.55)
Earl Armstrong/Limebank (S)	C(E)	0.73(0.96)	EBL(SBR)	26.1(47.9)	B(D)	0.62(0.90)
Jessie Chenevert/Larimar/Portico (U)	B(B)	10.5(11.8)	EB(EB)	6.8(7.9)	A(A)	-
Jessie Chenevert/North Access (U)	A(A)	9(9.8)	NB(NB)	6.9(6.8)	A(A)	-
Jessie Chenevert/Town Square (U)	A(B)	9.7(10.5)	EB(EB)	3.7(4.8)	A(A)	-
Jessie Chenevert/Limebank (U)	A(A)	8.9(9.4)	EB(EB)	0.1(0.1)	A(A)	-
Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.						
Note: All signal cycle lengths unmodified except the PM plan for Limebank/Earl Armstrong, which was extended from 112.8s to 130s.						

The study area intersections are all found to operate acceptably. Signalized intersections operate at LOS 'D' or better, with critical movements operating at LOS 'E' or better during peak hours. To improve traffic operations at the intersection of Earl Armstrong/Limebank, the uncoordinated cycle length was increased to 130 seconds during the afternoon peak hour. The unsignalized intersections, including the proposed site accesses, operate at LOS 'A', with critical movements operating at LOS 'B' or better during the peak hours.

Total Projected 2035 Conditions

The future background 2035 analysis uses peak hour traffic volumes from **Figure 32**, with results summarized in **Table 23** below.

Table 23: Intersection Performance with 2035 Total Volumes

Intersection	Weekday AM Peak (PM Peak)					
	Critical Movement			Intersection 'as a whole'		
	LOS	max. v/c or avg. delay (s)	Movement	Delay (s)	LOS	v/c
Earl Armstrong/Portico/Canyon Walk (S)	A(C)	0.60(0.72)	EBT(WBT)	13.2(15.7)	A(B)	0.56(0.70)
Earl Armstrong/Town Square/Blanca (S)	A(A)	0.57(0.57)	EBT(WBT)	10.5(9.4)	A(A)	0.52(0.55)
Earl Armstrong/Limebank (S)	C(E)	0.74(0.99)	EBL(SBR)	26.2(52.7)	B(E)	0.64(0.93)
Jessie Chenevert/Larimar/Portico (U)	B(B)	10.6(12)	EB(EB)	6.9(8.1)	A(A)	-
Jessie Chenevert/North Access (U)	A(A)	9(8.9)	NB(NB)	6.4(5.4)	A(A)	-
Jessie Chenevert/Town Square (U)	A(B)	9.8(10.5)	EB(EB)	4(5.5)	A(A)	-
Jessie Chenevert/Limebank (U)	A(A)	8.9(9.4)	EB(EB)	0.1(0.1)	A(A)	-
Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.						
Note: All signal cycle lengths unmodified except the PM plan for Limebank/Earl Armstrong, which was extended from 112.8s to 130s.						

The study area intersections are all found to operate acceptably. Signalized intersections operate at LOS 'E' or better, with critical movements also operating at LOS 'E' or better during peak hours. To improve traffic operations at the intersection of Earl Armstrong/Limebank, the uncoordinated cycle length was increased to 130 seconds during the afternoon peak hour. The unsignalized intersections, including the proposed site accesses, operate at LOS 'A', with critical movements operating at LOS 'B' or better during the peak hours.

Notably, the SBR at Earl Armstrong/Limebank is nearing its theoretical capacity during the PM peak hour. This is due to the high traffic volume of approximately 800 veh/h. Should future traffic operations of the SBR show poor performance with analysis indicating the movement is operating at capacity, the City may want to consider mitigation options such as providing a double right-turn lane with a traffic signal controlled movement.

5.0 FINDINGS AND RECOMMENDATIONS

Existing Conditions

- The site is currently a vacant field with the municipal address of 980 Earl Armstrong Road.

- LRT Line #2 Trillium Line and bus routes #70, #73, #74, #99, #110, #198, #283, #299, and #699 operate within 200-metres of the site.
- The road network surrounding the site is yet-to-be built per City of Ottawa Plans as outlined in **Figure 10**.
- There are no major safety concerns within the study area based on a review of the five-year collision history.
- The intersections 'as a whole' operate acceptably with LOS 'D' or better during peak hours. However the critical southbound right-turn movement at the intersection of Earl Armstrong/Limebank operates at capacity during the afternoon peak hour.
- Based on MMLOS analysis, the pedestrian and bicycle LOS do not meet the target LOS at the signalized study area intersections. This is primarily due to the length of crosswalks and lack of higher-level cycling facilities at the intersections.

Proposed Development

- The client is proposing an institutional/recreational development consisting of a single-storey building containing a 15,000 ft² library and a 25,000 ft² and additional outdoor amenities including two soccer fields, a baseball diamond, four permanent volleyball courts, four permanent tennis courts, and four permanent pickleball courts, with other seasonal uses.
- The site is expected to be fully constructed by year 2030.
- The trip generation for the proposed development forecasts approximately 139 to 143 'new' two-way auto trips, 57 to 78 'new' two-way public transit trips, and 41 to 70 'new' two-way active trips.
- The development proposes two accesses, one off Jessie Chenevert Walk on the site's north frontage, and the other off Portico Way on the site's west frontage. No concerns are anticipated with regard to the access of waste collection vehicles and fire trucks at the Jessie Chenevert Walk access and internal circulation.
- The two accesses provide connections to proposed parking lots, where 138 spaces are proposed at the Jessie Chenevert Walk lot and 100 spaces are proposed at the Portico Way lot. The site also proposes to provide 48 bike parking spaces surrounding the proposed library and Community Centre building.
- The site meets the Zoning By-Law requirements for vehicle and bike parking, along with the requirements of the Access By-Law.
- A MUP network is expected to be constructed throughout the site, with a critical pedestrian connection to Limebank Station.
- A strong TDM plan is proposed to leverage the site's proximity to Limebank LRT Station and planned active transportation infrastructure. Some of the measures include providing on-site change rooms, a bike repair station, and communicating alternative transportation routes to the site for staff and visitors.

Future Conditions

- Peak hour traffic volumes from nearby adjacent developments were incorporated into the future traffic volume projections, including the long-term care home at 400 Jessie Chenevert and future developments of Phase 1 & 2 of the plan of subdivision at 980 Earl Armstrong Road. Additional background growth at 2030 and 2035 horizon years was applied at an annual rate of 2%.
- The planned street network surrounding the site includes Jessie Chenevert Walk to the north, Town Square Place to the east, Portico Way to the north and the transitway to the south (anticipated to be constructed beyond the horizon years of this TIA). Along the north, east and west frontages, the streets are expected to include 2.5-metre-wide sidewalks, along with 2.0-metre-wide cycle tracks and bus stops on both sides of the streets.
- Two-way stop control is proposed at the future intersections of the planned future roads.

- Future conditions forecast good overall intersection and critical movement performance of LOS 'E' or better during peak hours for the signalized intersections and LOS 'A' for unsignalized intersections and the site accesses.
- MMLOS analysis of signalized intersections yields similar results as existing conditions, while MMLOS analysis of boundary road segments indicate that the future roads are expected to meet the respective LOS targets for different travel modes.

DRAFT

DRAFT

Appendix A:

Screening Form & Site Plan

City of Ottawa 2017 TIA Guidelines

Date

19-May-26

TIA Screening Form

Project

RS Library and Community Centre

Project Number

479818-01000

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

Module 1.1 - Description of Proposed Development	
Municipal Address	980 Earl Armstrong Rd, Gloucester, ON K1V 1T1
Description of location	Vacant land south of Earl Armstrong Road
Land Use	Library and Community Centre
Development Size	15,000 ft2 Library and 25,000 ft2 Community Centre, plus outdoor sports facilities
Number of Accesses and Locations	Two accesses to surface lots, on Jessie Chenevert and Portico
Development Phasing	Single phase
Buildout Year	2029
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger		
Land Use Type	Other	
Development Size	500	People Trips
Trip Generation Trigger Met?	Yes	

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

Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	<80	km/h
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	No	
A proposed driveway is within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions) or within auxiliary lanes of an intersection?	No	There are no existing signals or roundabouts within 150 m of the proposed accesses.
Does the proposed driveway make use of an existing median break that serves an existing site?	No	
Is there is 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 Met?	No	

CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS ON THE
DO NOT SCALE DRAWING

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PHASE I & II DISTRICT PARK PLAN



- GENERAL NOTES**
- PLAN SYMBOLS**
- SD DENOTES SLOPED ROOF
 - FI DENOTES ROOF DRAIN
 - AD DENOTES FLOOR DRAIN
 - HA DENOTES AREA DRAIN
 - HB DENOTES HOSE BB LOCATION
 - HC DENOTES PROPOSED SAMESE CONNECTION LOCATION
 - HD DENOTES PROPOSED GAS METER LOCATION
 - HW DENOTES RAIN WATER LEADER
 - MM CONVEX MIRROR
- GENERAL NOTES**
- PLANS**
- REFER TO BUILDING ELEMENTS SCHEDULE FOR EXTERIOR WALL, PARTITION, ROOF, CEILING, AND SOFFIT TYPES.
 - REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENT.
 - AT LOCATIONS WHERE MECH DUCTS INTERFERE WITH FULL HEIGHT CONSTRUCTION OF INTERIOR PARTITIONS, OFFSET PARTITION ABOVE CEILING AND BRACE AS REQUIRED. MAINTAIN FIRE SEPARATION/SOUND RATING OF PARTITION. OFFSETTING OF PARTITIONS WILL ONLY BE PERMITTED WHERE DUCTWORK CANNOT BE POSTIONED.
 - ALL OMBESING ARE TAKEN TO FACE OF MASONRY OR CONCRETE AT MASONRY AND CONCRETE WALLS AND PARTITIONS. AT STEEL STUD PARTITIONS, DIMENSIONS ARE TAKEN TO FACE OF CHIMNEY BOARD, UNLESS OTHERWISE NOTED.
 - INCREASE THICKNESS OF WALLS OR FLUR OUT WALL THICKNESS AS REQUIRED TO ACCOMMODATE MECHANICAL AND ELECTRICAL PANELS AND SERVICES. MAINTAIN FIRE SEPARATION AROUND BACK OF PANELS WHERE APPLICABLE.
 - FOR DIMENSIONS OF CONCRETE REFER TO SLAB EDGE DRAWINGS.

ISSUED		
NO.	DATE	DESCRIPTION
1	02 MAR 2026	ISSUED FOR 100% SD COSTING
2	16 MAR 2026	ISSUED FOR 100% SD
3	26 JUN 2026	ISSUED FOR CLASS C COST ESTIMATE
4	10 JUL 2026	ISSUED FOR SPC

CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS ON THE JOB.

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25018 - RIVERSIDE SOUTH - COMMUNITY CENTRE & LIBRARY

25018

PHASE I SITE PLAN

As indicated

A011

Appendix B:

Traffic Count Data

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

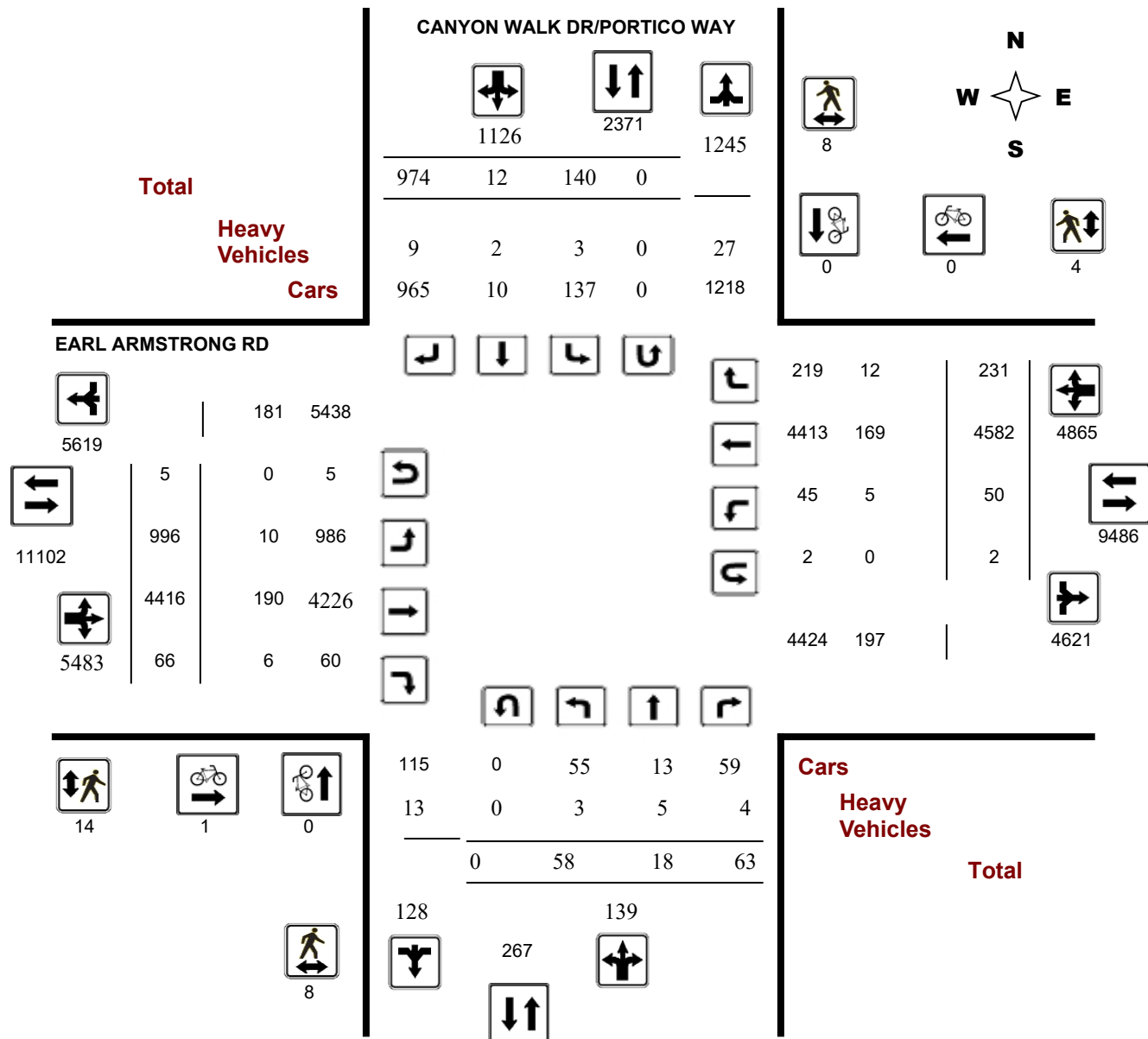
Survey Date: Wednesday, December 18, 2019

Start Time: 07:00

WO No: 39238

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

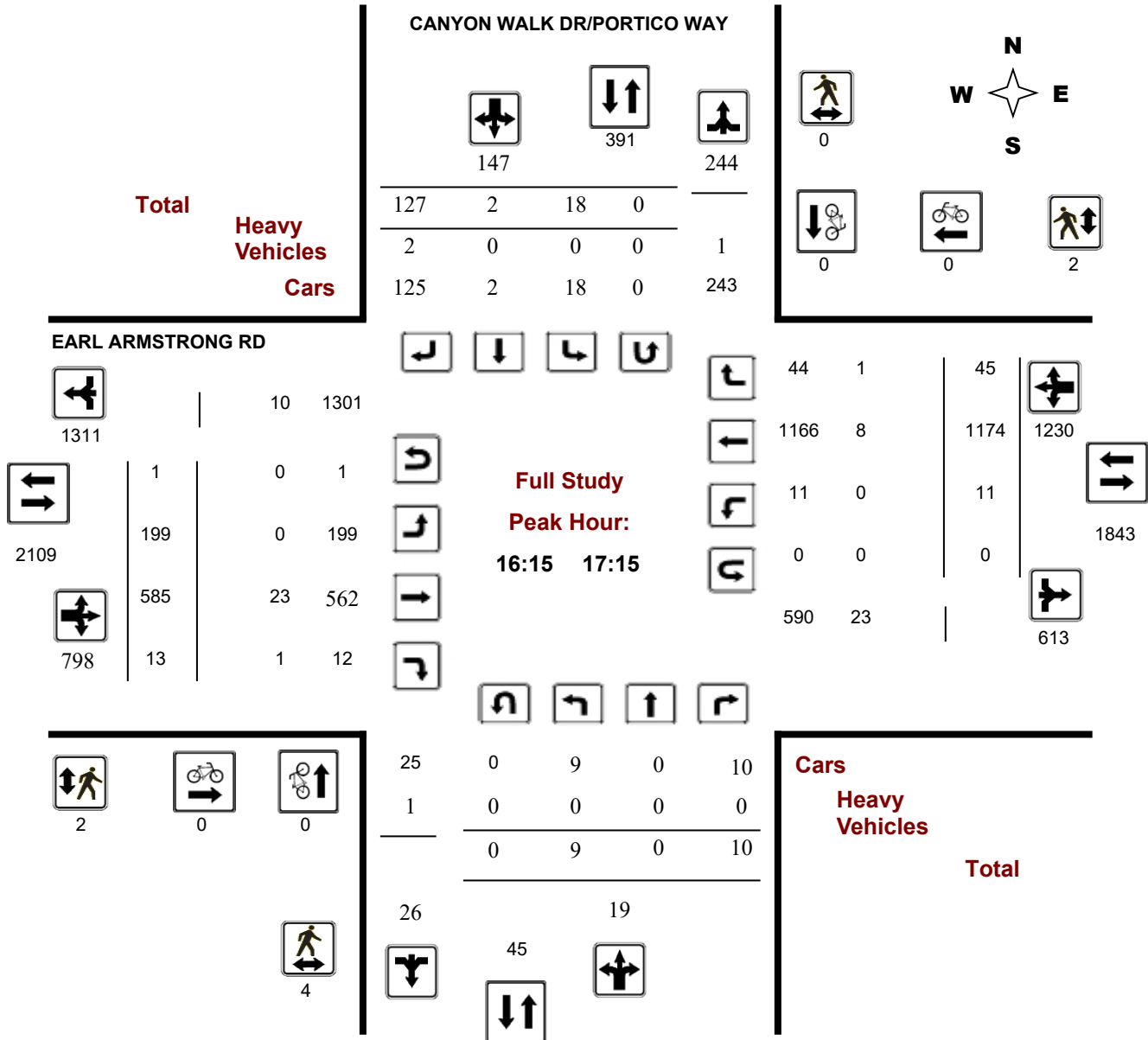
Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

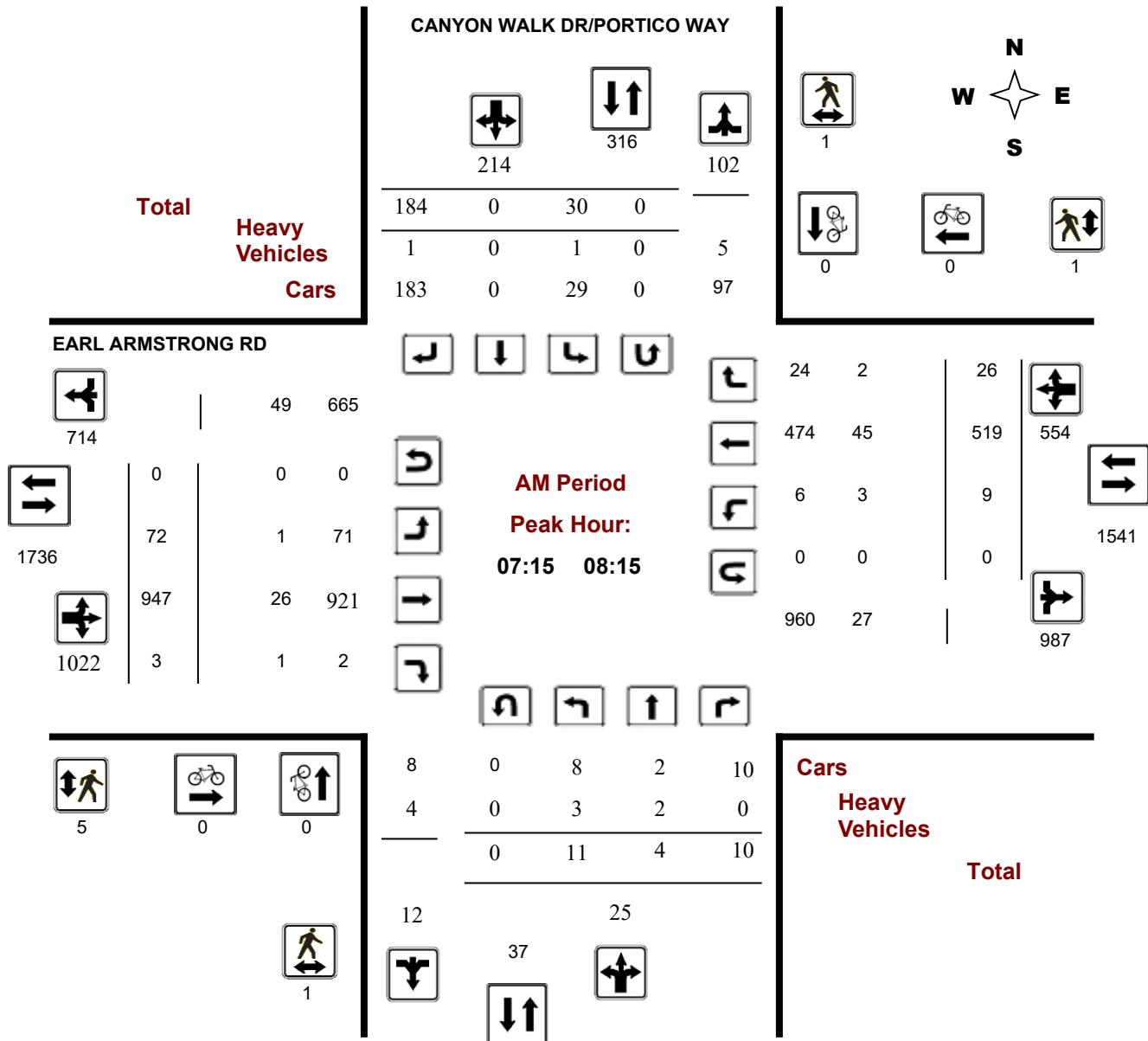
Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

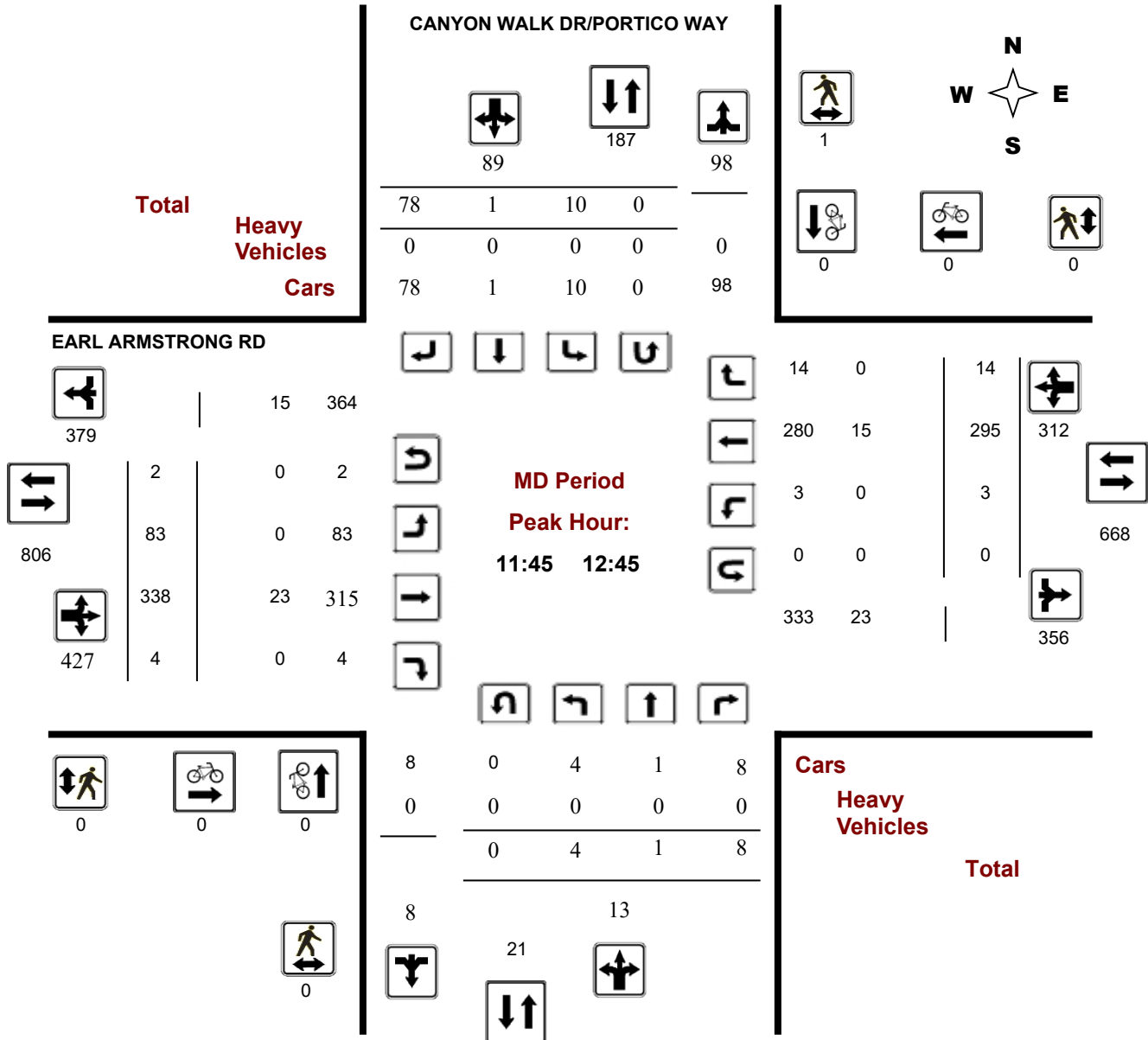
Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

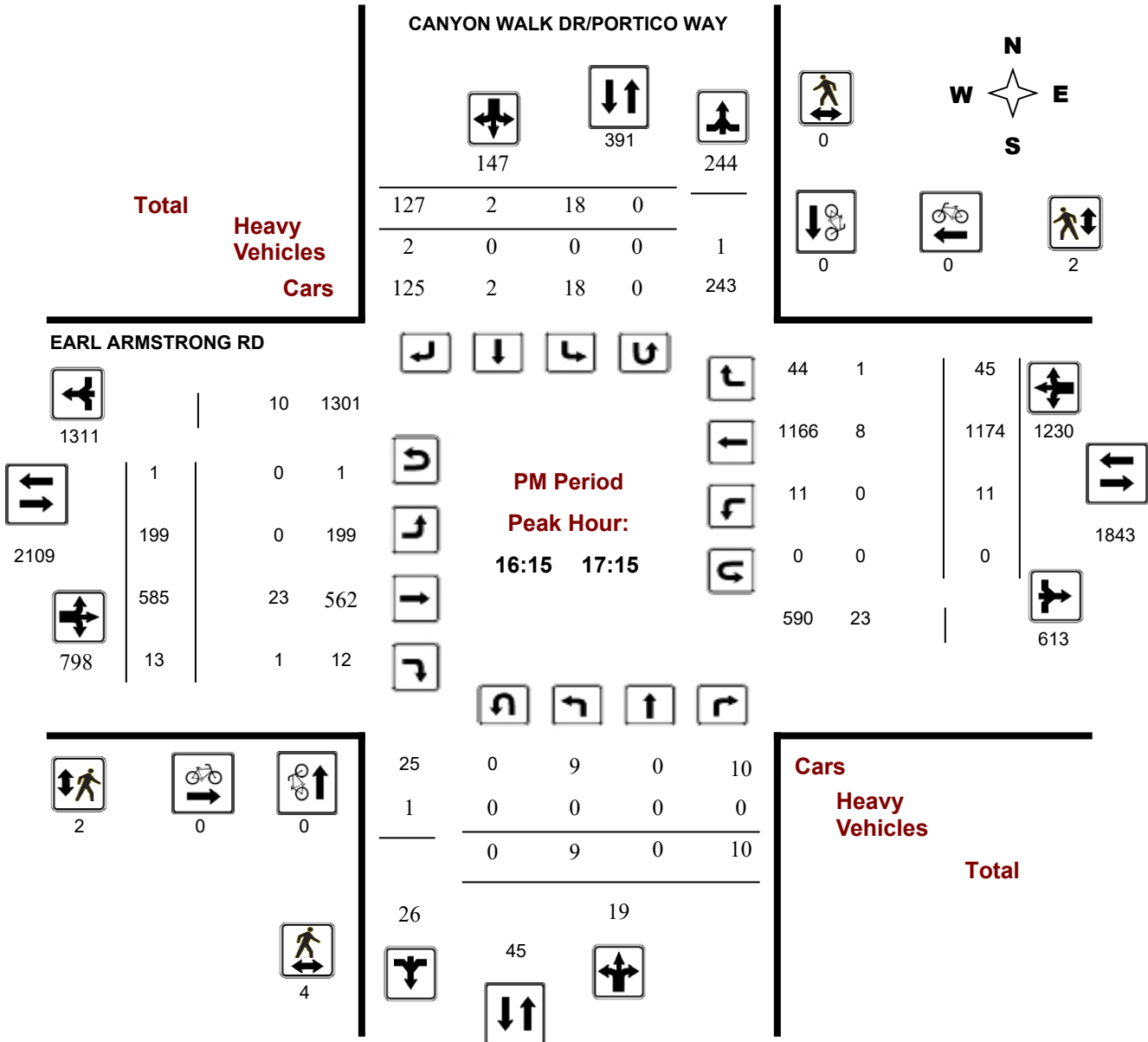
Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, December 18, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 5 Westbound: 2

AADT Factor

1.00

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	8	3	13	24	22	1	167	190	214	53	983	3	1039	6	459	23	488	1527	1741
08:00 09:00	10	3	7	20	31	0	203	234	254	90	769	7	866	7	435	23	465	1331	1585
09:00 10:00	5	4	14	23	19	0	84	103	126	62	435	3	500	2	282	17	301	801	927
11:30 12:30	4	0	6	10	7	0	77	84	94	79	342	6	427	2	302	11	315	742	836
12:30 13:30	5	2	7	14	12	2	65	79	93	89	313	6	408	3	283	14	300	708	801
15:00 16:00	10	4	5	19	13	7	125	145	164	195	516	14	725	12	766	38	816	1541	1705
16:00 17:00	9	0	8	17	18	0	129	147	164	212	591	10	813	11	1117	51	1179	1992	2156
17:00 18:00	7	2	3	12	18	2	124	144	156	216	467	17	700	7	938	54	999	1699	1855
Sub Total	58	18	63	139	140	12	974	1126	1265	996	4416	66	5478	50	4582	231	4863	10341	11606
U Turns				0				0	0				5				2	7	7
Total	58	18	63	139	140	12	974	1126	1265	996	4416	66	5483	50	4582	231	4865	10348	11613
EQ 12Hr	81	25	88	193	195	17	1354	1565	1758	1384	6138	92	7621	70	6369	321	6762	14384	16142

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

1.39

AVG 12Hr	81	25	88	193	195	22	1774	1565	1758	1384	6138	92	7621	70	6369	321	6762	14384	16142
-----------------	----	----	----	-----	-----	----	------	------	------	------	------	----	------	----	------	-----	------	-------	-------

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

1.00

AVG 24Hr	106	33	115	253	255	29	2324	2050	2303	1813	8041	121	9984	92	8343	421	8858	18843	21146
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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

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	1	0	4	5	2	1	47	50	55	11	241	2	254	1	71	2	74	328	383
07:15 07:30	4	2	2	8	5	0	33	38	46	11	262	0	273	3	109	5	117	390	436
07:30 07:45	1	0	4	5	6	0	46	52	57	13	264	0	277	0	111	7	118	395	452
08:30 08:45	1	1	2	4	7	0	37	44	48	23	227	1	251	1	101	6	108	359	407
16:30 16:45	2	0	2	4	6	0	27	33	37	48	145	2	196	1	302	11	314	510	547
17:45 18:00	1	1	0	2	3	0	31	34	36	61	113	0	174	1	187	15	203	377	413
07:45 08:00	2	1	3	6	9	0	41	50	56	18	216	1	235	2	168	9	179	414	470
08:00 08:15	4	1	1	6	10	0	64	74	80	30	205	2	237	4	131	5	140	377	457
08:15 08:30	2	0	2	4	8	0	45	53	57	18	183	2	203	0	100	4	104	307	364
08:45 09:00	3	1	2	6	6	0	57	63	69	19	154	2	176	2	103	8	113	289	358
09:00 09:15	0	2	3	5	6	0	35	41	46	25	131	0	157	1	88	8	98	255	301
09:15 09:30	2	2	2	6	6	0	20	26	32	14	123	0	137	0	75	5	80	217	249
09:30 09:45	1	0	4	5	5	0	8	13	18	11	85	2	98	1	58	1	60	158	176
09:45 10:00	2	0	5	7	2	0	21	23	30	12	96	1	109	0	61	3	64	173	203
11:30 11:45	1	0	2	3	2	0	19	21	24	11	83	2	96	0	82	1	83	179	203
11:45 12:00	0	0	2	2	3	0	21	24	26	24	81	0	106	0	75	3	78	184	210
12:00 12:15	0	0	0	0	2	0	17	19	19	19	93	2	114	1	62	4	67	181	200
12:15 12:30	3	0	2	5	0	0	20	20	25	25	85	2	113	1	83	3	87	200	225
12:30 12:45	1	1	4	6	5	1	20	26	32	15	79	0	94	1	75	4	80	174	206
12:45 13:00	1	1	1	3	1	0	14	15	18	25	80	1	106	0	63	2	65	171	189
13:00 13:15	2	0	0	2	2	1	20	23	25	21	77	1	99	0	68	6	74	173	198
13:15 13:30	1	0	2	3	4	0	11	15	18	28	77	4	109	2	77	2	81	190	208
15:00 15:15	0	3	1	4	2	2	24	28	32	42	123	6	171	2	174	10	186	357	389
15:15 15:30	5	0	1	6	4	0	24	28	34	50	114	2	166	2	181	8	191	357	391
15:30 15:45	3	0	1	4	0	2	39	41	45	64	138	3	205	4	198	6	208	413	458
15:45 16:00	2	1	2	5	7	3	38	48	53	39	141	3	183	4	213	14	231	414	467
16:00 16:15	0	0	0	0	4	0	39	43	43	62	148	1	211	2	233	17	252	463	506
16:15 16:30	2	0	0	2	2	0	36	38	40	50	145	4	199	4	260	16	280	479	519
16:45 17:00	5	0	6	11	6	0	27	33	44	52	153	3	208	4	322	7	333	541	585
17:00 17:15	0	0	2	2	4	2	37	43	45	49	142	4	195	2	290	11	303	498	543
17:15 17:30	2	0	0	2	4	0	28	32	34	54	90	8	152	2	259	14	276	428	462
17:30 17:45	4	1	1	6	7	0	28	35	41	52	122	5	179	2	202	14	218	397	438
Total:	58	18	63	139	140	12	974	1126	1265	996	4416	66	5483	50	4582	231	4865	10348	11,613

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	1	1	1
07:30 07:45	1	0	1	3	0	3	4
08:30 08:45	0	0	0	1	0	1	1
16:30 16:45	1	0	1	0	2	2	3
17:45 18:00	0	0	0	1	0	1	1
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	1	1	2	0	2	3
08:15 08:30	0	3	3	0	0	0	3
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	1	1	0	0	0	1
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	1	1	1	0	1	2
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	2	0	2	2
15:15 15:30	0	1	1	0	0	0	1
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	1	1	0	0	0	1
16:00 16:15	1	0	1	0	0	0	1
16:15 16:30	0	0	0	0	0	0	0
16:45 17:00	3	0	3	1	0	1	4
17:00 17:15	0	0	0	1	0	1	1
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	2	0	2	2	1	3	5
Total	8	8	16	14	4	18	34



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

Northbound Southbound Eastbound Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	0	0	0	0	1	1	2	2	0	2	0	2	0	4	1	5	7	9
07:15 07:30	1	1	0	2	0	0	1	1	3	0	1	0	1	2	8	1	11	12	15
07:30 07:45	1	0	0	1	0	0	0	0	1	0	10	0	10	0	14	0	14	24	25
08:30 08:45	0	0	0	0	0	0	0	0	0	1	6	1	8	0	4	1	5	13	13
16:30 16:45	0	0	0	0	0	0	1	1	1	0	4	1	5	0	4	1	5	10	11
17:45 18:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	6	6
07:45 08:00	1	0	0	1	0	0	0	0	1	0	3	0	3	1	17	1	19	22	23
08:00 08:15	0	1	0	1	1	0	0	1	2	1	12	1	14	0	6	0	6	20	22
08:15 08:30	0	0	1	1	0	0	1	1	2	0	5	1	6	0	7	0	7	13	15
08:45 09:00	0	0	0	0	0	0	0	0	0	0	7	0	7	0	6	2	8	15	15
09:00 09:15	0	1	1	2	1	0	0	1	3	1	3	0	4	1	5	1	7	11	14
09:15 09:30	0	0	0	0	0	0	0	0	0	0	7	0	7	0	9	0	9	16	16
09:30 09:45	0	0	0	0	0	0	0	0	0	0	6	0	6	0	6	0	6	12	12
09:45 10:00	0	0	0	0	0	0	0	0	0	2	8	0	10	0	3	0	3	13	13
11:30 11:45	0	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8	8
11:45 12:00	0	0	0	0	0	0	0	0	0	0	7	0	7	0	6	0	6	13	13
12:00 12:15	0	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8	8
12:15 12:30	0	0	0	0	0	0	0	0	0	0	9	0	9	0	4	0	4	13	13
12:30 12:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4	4
12:45 13:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	6	0	6	10	10
13:00 13:15	0	0	0	0	0	0	0	0	0	1	5	0	6	0	7	0	7	13	13
13:15 13:30	0	0	0	0	0	0	0	0	0	1	8	0	9	0	10	0	10	19	19
15:00 15:15	0	2	0	2	0	0	0	0	2	3	8	2	13	0	5	1	6	19	21
15:15 15:30	0	0	0	0	0	0	1	1	1	0	4	0	4	0	5	1	6	10	11
15:30 15:45	0	0	0	0	0	0	0	0	0	0	8	0	8	1	3	0	4	12	12
15:45 16:00	0	0	2	2	1	1	2	4	6	0	11	0	11	0	5	1	6	17	23
16:00 16:15	0	0	0	0	0	0	1	1	1	0	9	0	9	0	5	1	6	15	16
16:15 16:30	0	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6	6
16:45 17:00	0	0	0	0	0	0	1	1	1	0	9	0	9	0	0	0	0	9	10
17:00 17:15	0	0	0	0	0	0	0	0	0	0	5	0	5	0	3	0	3	8	8
17:15 17:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4	4
17:30 17:45	0	0	0	0	0	0	0	0	0	0	6	0	6	0	4	0	4	10	10
Total: None	3	5	4	12	3	2	9	14	26	10	190	6	206	5	169	12	186	392	418

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Survey Date: Wednesday, December 18, 2019

WO No: 39238

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

CANYON WALK DR/PORTICO WAY

EARL ARMSTRONG RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
08:30	08:45	0	0	0	0	0
16:30	16:45	0	0	1	0	1
17:45	18:00	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:45	09:00	0	0	1	0	1
09:00	09:15	0	0	1	1	2
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	1	0	1
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	1	0	1
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	1	1
17:30	17:45	0	0	0	0	0
Total		0	0	5	2	7

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

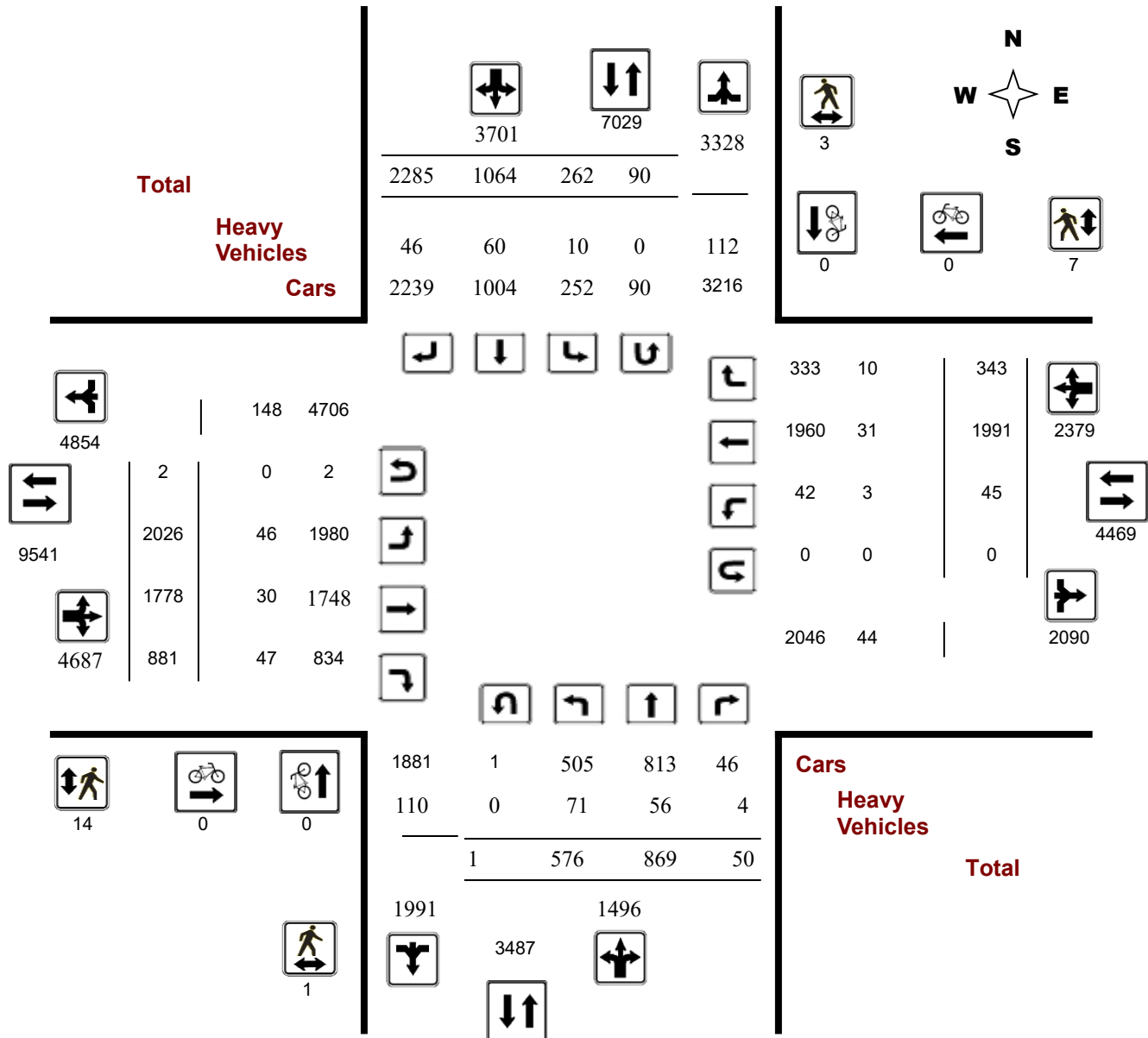
Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

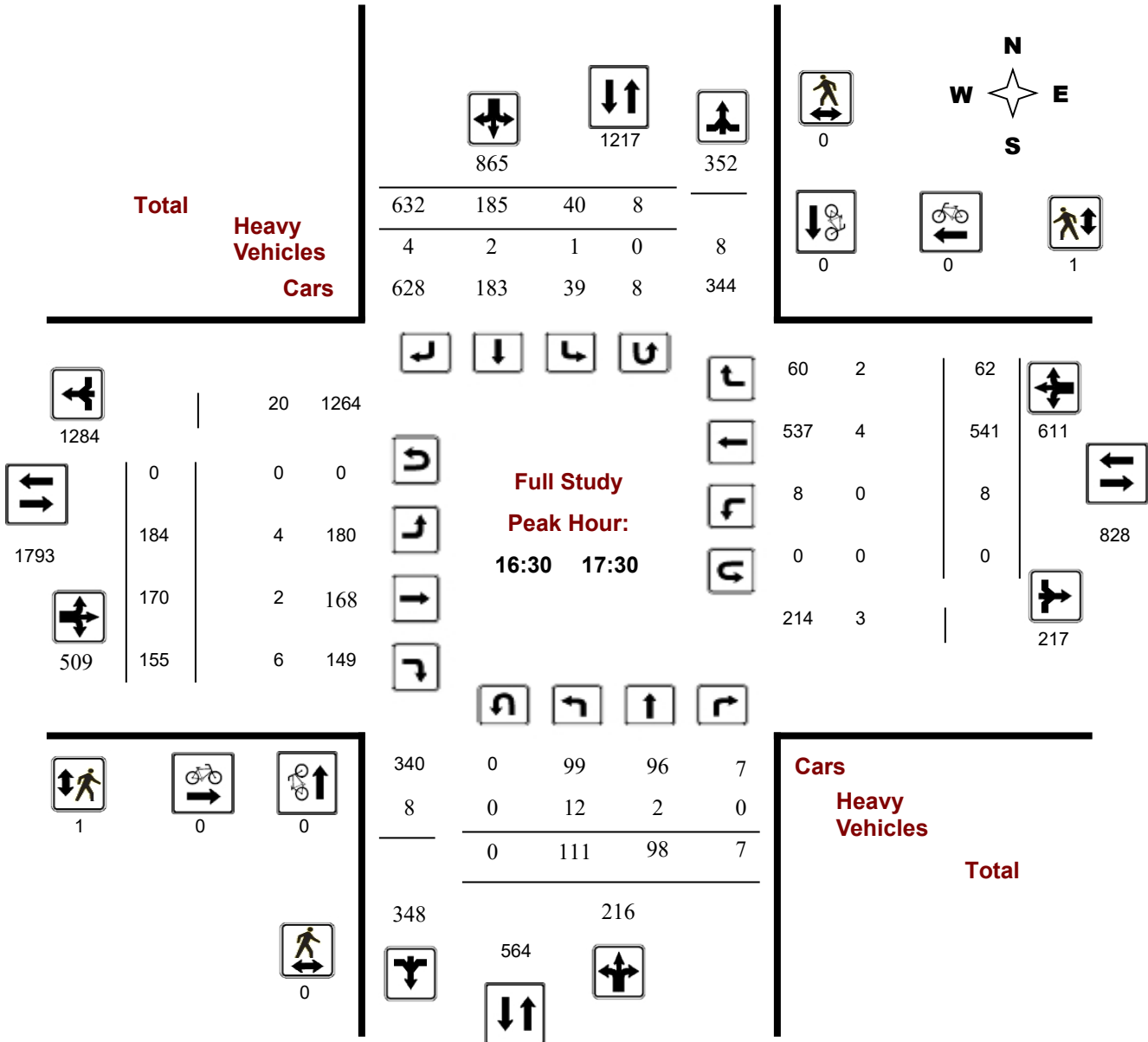
Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

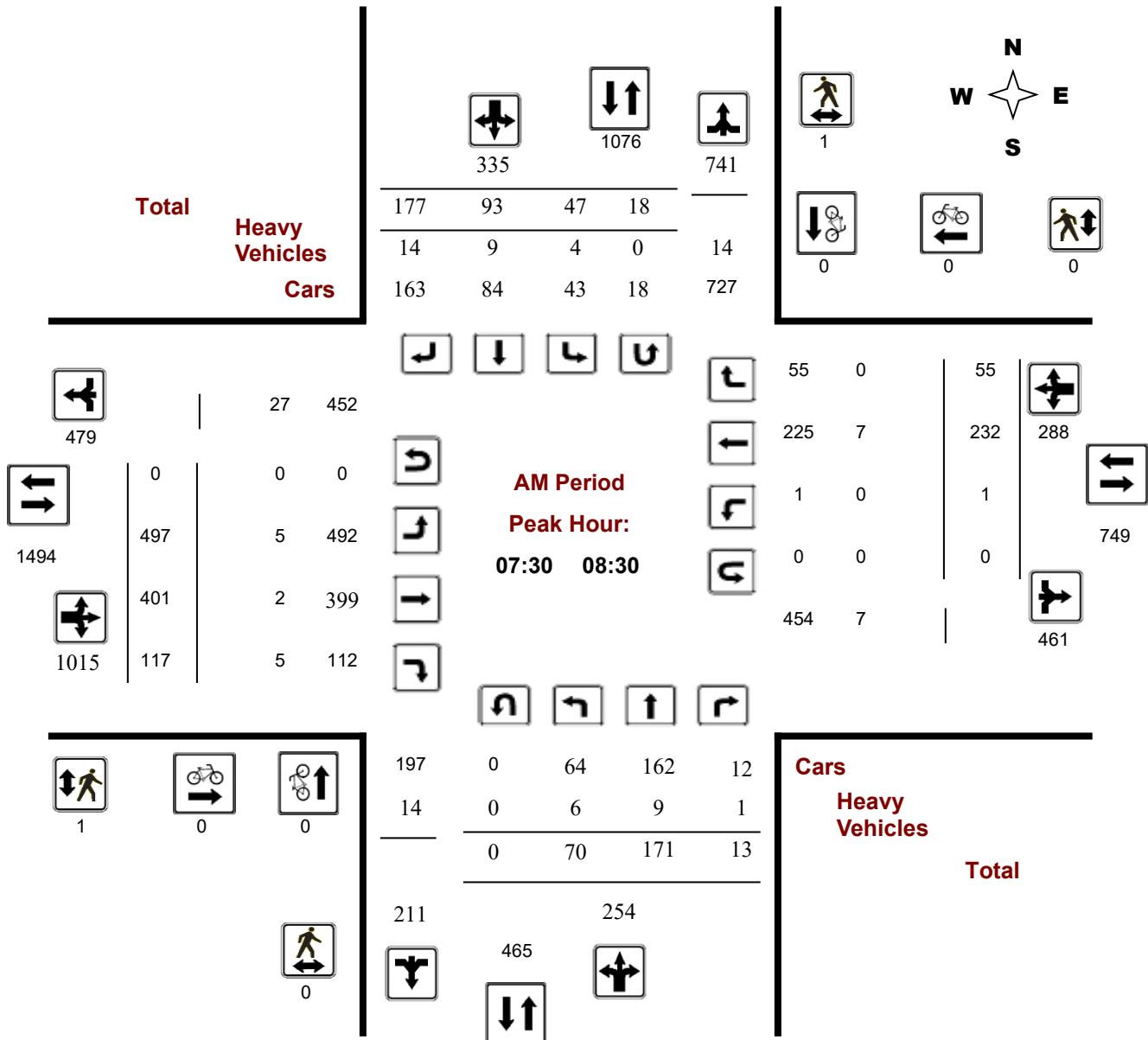
Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

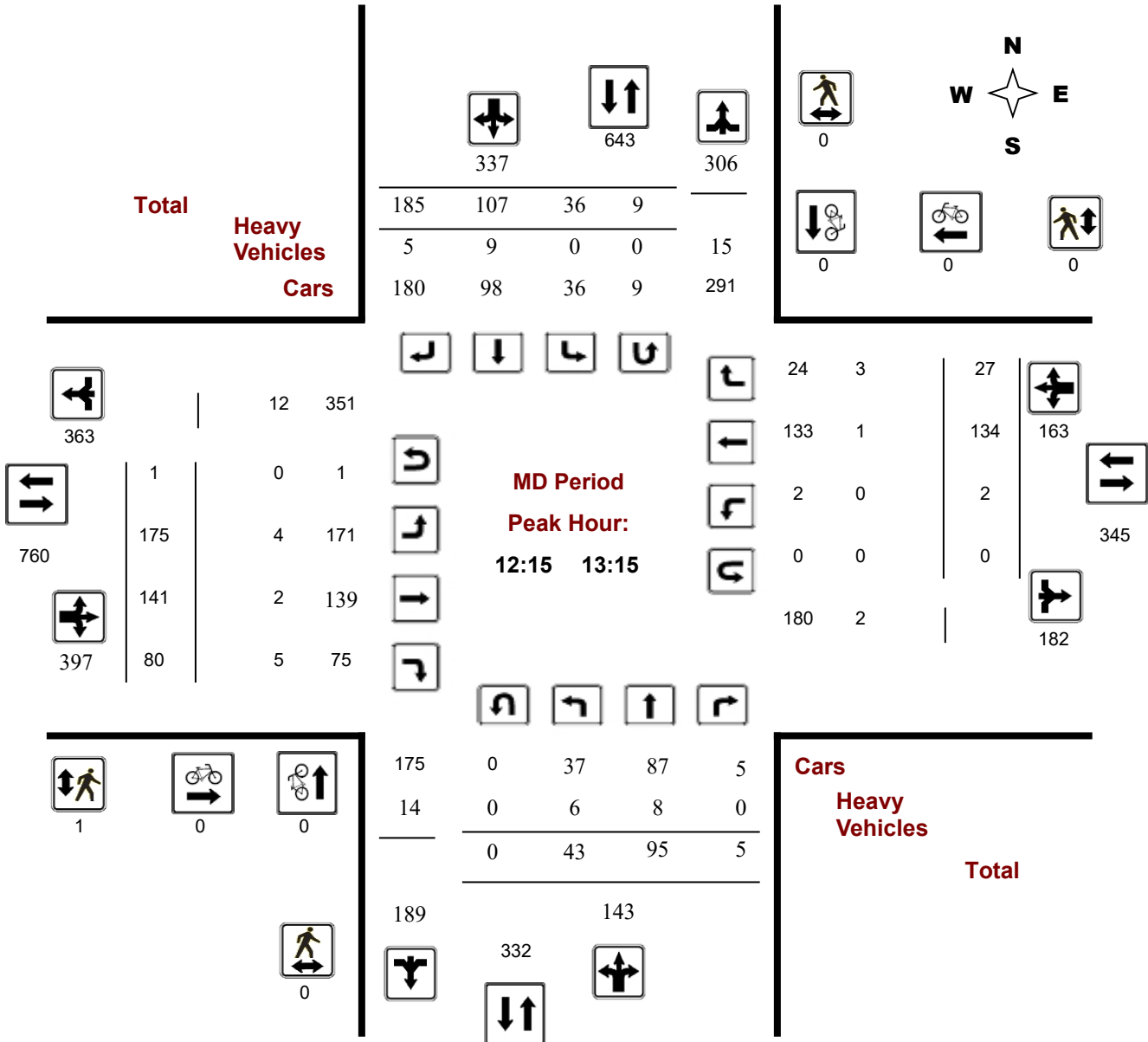
Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMBANK RD

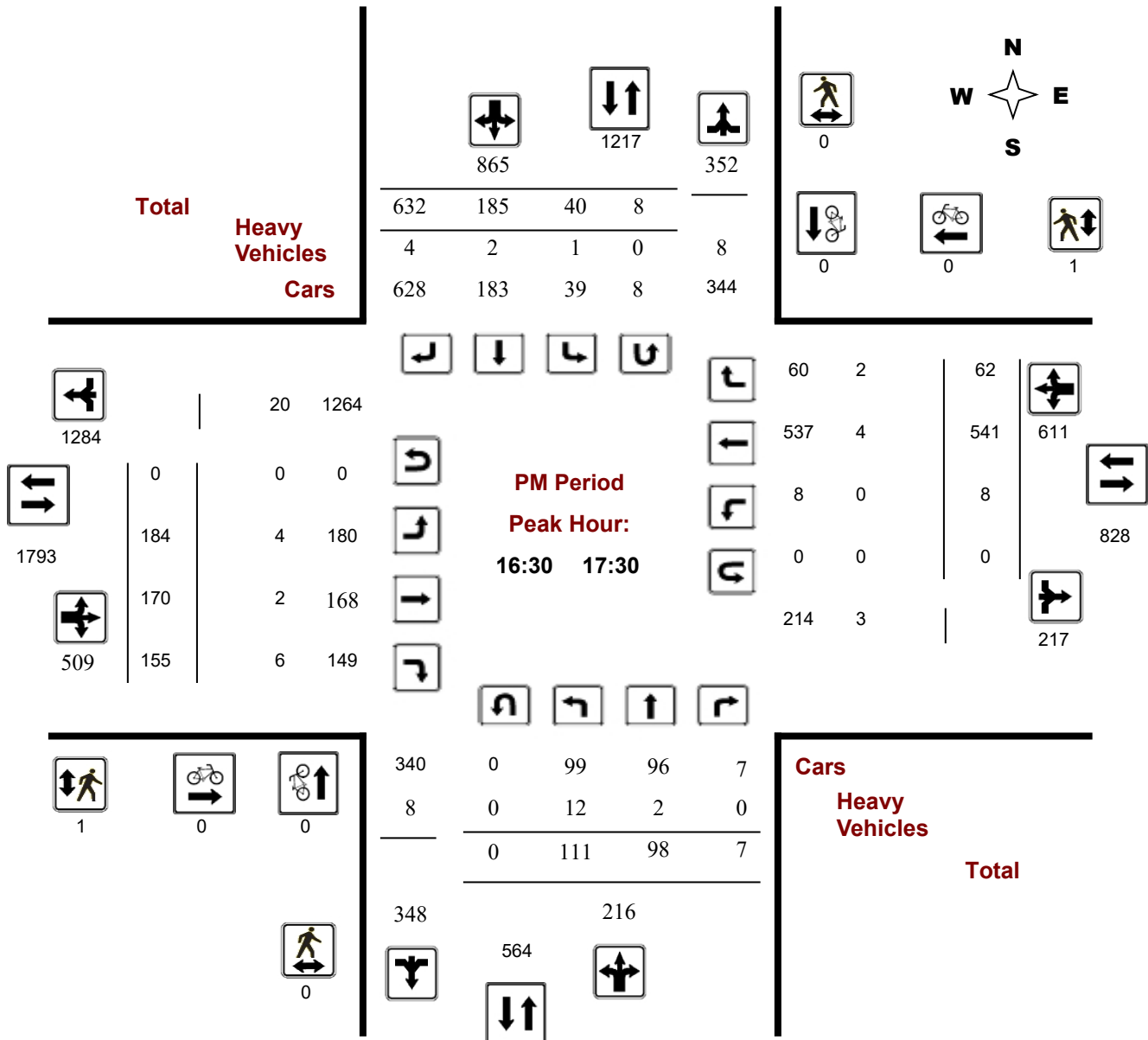
Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, January 28, 2026

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 90
Eastbound: 2 Westbound: 0

1.00

		Northbound				Southbound				Eastbound				Westbound										
Period		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total				
07:00	08:00	67	173	18	258	48	74	139	261	519	471	376	119	966	2	170	58	230	1196	1715				
08:00	09:00	79	171	5	255	21	88	152	261	516	448	347	98	893	4	193	60	257	1150	1666				
09:00	10:00	64	105	6	175	27	98	129	254	429	215	213	65	493	1	107	19	127	620	1049				
11:30	12:30	39	84	6	129	37	86	176	299	428	150	162	65	377	1	129	33	163	540	968				
12:30	13:30	54	88	4	146	27	119	174	320	466	158	142	81	381	2	129	24	155	536	1002				
15:00	16:00	79	75	3	157	31	182	422	635	792	189	199	141	529	9	356	33	398	927	1719				
16:00	17:00	94	80	3	177	39	232	553	824	1001	219	174	159	552	13	423	61	497	1049	2050				
17:00	18:00	100	93	5	198	32	185	540	757	955	176	165	153	494	13	484	55	552	1046	2001				
Sub Total		576	869	50	1495	262	1064	2285	3611	5106	2026	1778	881	4685	45	1991	343	2379	7064	12170				
U Turns		1								90	91	2				0				2	93			
Total		576	869	50	1496	262	1064	2285	3701	5197	2026	1778	881	4687	45	1991	343	2379	7066	12263				
EQ 12Hr		801	1208	70	2079	364	1479	3176	5144	7224	2816	2471	1225	6515	63	2767	477	3307	9822	17046				
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.															1.39									
AVG 12Hr		801	1208	70	2079	364	1937	4161	5144	7224	2816	2471	1225	6515	63	2767	477	3307	9822	17046				
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.															1.00									
AVG 24Hr		1049	1582	92	2723	477	2537	5451	6739	9463	3689	3237	1605	8535	83	3625	625	4332	12867	22330				
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

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	19	40	4	63	3	12	23	40	103	103	73	26	203	1	25	10	36	239	342
07:15	07:30	11	44	3	58	6	17	21	46	104	124	102	32	258	1	30	21	52	310	414
07:30	07:45	17	53	8	78	24	26	43	98	176	129	96	31	256	0	47	25	72	328	504
07:45	08:00	20	36	3	59	15	19	52	90	149	115	105	30	250	0	68	2	70	320	469
08:15	08:30	18	37	0	55	4	27	42	80	135	116	98	26	240	0	54	15	69	309	444
09:30	09:45	16	27	1	44	5	21	21	49	93	42	57	10	109	0	25	7	32	141	234
11:30	11:45	14	23	3	40	8	26	30	71	111	21	30	17	68	0	26	8	34	102	213
16:30	16:45	28	33	3	64	15	55	128	200	264	53	43	35	131	1	122	10	133	264	528
17:45	18:00	21	20	0	41	8	56	80	146	187	36	44	33	113	4	91	12	107	220	407
08:00	08:15	15	45	2	62	4	21	40	67	129	137	102	30	269	1	63	13	77	346	475
08:30	08:45	20	45	2	68	3	16	40	62	130	123	93	19	235	0	36	9	45	280	410
08:45	09:00	26	44	1	71	10	24	30	66	137	72	54	23	149	3	40	23	66	215	352
09:00	09:15	19	31	3	53	13	32	42	93	146	64	69	26	159	0	33	6	39	198	344
09:15	09:30	11	18	2	31	5	22	28	59	90	66	60	21	147	1	29	3	33	180	270
09:45	10:00	18	29	0	47	4	23	38	67	114	43	27	8	78	0	20	3	23	101	215
11:45	12:00	8	16	1	25	9	20	45	76	101	42	50	8	100	0	36	6	42	142	243
12:00	12:15	10	15	0	25	6	16	52	80	105	42	43	21	106	0	37	6	43	149	254
12:15	12:30	7	30	2	39	14	24	49	91	130	45	39	19	104	1	30	13	44	148	278
12:30	12:45	11	18	0	29	5	26	44	76	105	51	34	21	106	0	42	6	48	154	259
12:45	13:00	8	14	2	24	6	29	45	82	106	47	31	19	97	1	31	3	35	132	238
13:00	13:15	17	33	1	51	11	28	47	88	139	32	37	21	90	0	31	5	36	126	265
13:15	13:30	18	23	1	42	5	36	38	82	124	28	40	20	88	1	25	10	36	124	248
15:00	15:15	21	15	1	37	8	45	67	120	157	45	52	26	123	2	58	3	63	186	343
15:15	15:30	18	22	1	41	5	32	98	138	179	48	57	35	140	3	98	11	112	252	431
15:30	15:45	22	21	0	43	7	50	97	154	197	50	46	41	137	1	102	7	110	247	444
15:45	16:00	18	17	1	36	11	55	160	228	264	46	44	39	129	3	98	12	113	242	506
16:00	16:15	18	19	0	37	7	63	150	222	259	59	41	44	144	3	92	21	116	260	519
16:15	16:30	23	18	0	41	9	74	122	207	248	57	45	35	137	5	87	11	103	240	488
16:45	17:00	25	10	0	35	8	40	153	204	239	50	45	45	140	4	122	19	145	285	524
17:00	17:15	44	27	0	71	12	46	181	242	313	39	37	38	114	0	160	20	180	294	607
17:15	17:30	14	28	4	46	5	44	170	219	265	42	45	37	124	3	137	13	153	277	542
17:30	17:45	21	18	1	40	7	39	109	158	198	59	39	45	143	6	96	10	112	255	453
Total:		576	869	50	1496	262	1064	2285	3701	5197	2026	1778	881	4687	45	1991	343	2379	7066	12,263

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	1	0	1	0	2	2	3
07:30 07:45	0	1	1	0	0	0	1
07:45 08:00	0	0	0	0	0	0	0
08:15 08:30	0	0	0	1	0	1	1
09:30 09:45	0	1	1	0	1	1	2
11:30 11:45	0	0	0	2	0	2	2
16:30 16:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	1	1	1
08:00 08:15	0	0	0	0	0	0	0
08:30 08:45	0	0	0	1	0	1	1
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	3	0	3	3
09:45 10:00	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	2	0	2	2
12:15 12:30	0	0	0	1	0	1	1
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	1	1	1	0	1	2
15:15 15:30	0	0	0	1	0	1	1
15:30 15:45	0	0	0	0	1	1	1
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	1	1	1
16:45 17:00	0	0	0	1	0	1	1
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	1	1	1
17:30 17:45	0	0	0	1	0	1	1
Total	1	3	4	14	7	21	25



Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
Time Period		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	2	2	0	4	0	1	0	1	5	0	0	0	0	0	0	0	0	0	5
07:15	07:30	2	1	0	3	0	2	1	3	6	2	2	1	5	0	1	0	1	6	12
07:30	07:45	3	2	1	6	4	1	3	8	14	4	0	0	4	0	3	0	3	7	21
07:45	08:00	2	1	0	3	0	3	4	7	10	0	0	0	0	0	1	0	1	1	11
08:15	08:30	0	4	0	4	0	3	3	6	10	1	1	3	5	0	2	0	2	7	17
09:30	09:45	5	2	0	7	0	3	0	3	10	1	2	1	4	0	0	1	1	5	15
11:30	11:45	1	5	0	6	0	2	0	2	8	0	1	3	4	0	1	0	1	5	13
16:30	16:45	2	1	0	3	1	1	1	3	6	2	1	1	4	0	1	0	1	5	11
17:45	18:00	3	1	0	4	0	0	0	0	4	0	0	0	0	0	0	1	1	1	5
08:00	08:15	1	2	0	3	0	2	4	6	9	0	1	2	3	0	1	0	1	4	13
08:30	08:45	2	4	1	7	1	2	3	6	13	3	1	0	4	0	1	0	1	5	18
08:45	09:00	4	2	0	6	0	0	2	2	8	2	0	2	4	2	3	2	7	11	19
09:00	09:15	2	3	1	6	1	8	1	10	16	2	2	1	5	0	1	0	1	6	22
09:15	09:30	0	1	1	2	1	3	1	5	7	2	2	2	6	1	1	0	2	8	15
09:45	10:00	3	3	0	6	0	1	2	3	9	2	1	0	3	0	0	0	0	3	12
11:45	12:00	2	1	0	3	0	2	1	3	6	2	3	1	6	0	0	0	0	6	12
12:00	12:15	1	1	0	2	1	1	0	2	4	1	0	0	1	0	0	0	0	1	5
12:15	12:30	1	1	0	2	0	2	1	3	5	1	0	2	3	0	0	0	0	3	8
12:30	12:45	1	1	0	2	0	2	0	2	4	0	1	0	1	0	0	0	0	1	5
12:45	13:00	0	2	0	2	0	2	3	5	7	0	0	0	0	0	0	1	1	1	8
13:00	13:15	4	4	0	8	0	3	1	4	12	3	1	3	7	0	1	2	3	10	22
13:15	13:30	2	3	0	5	0	4	0	4	9	1	0	1	2	0	1	0	1	3	12
15:00	15:15	3	2	0	5	0	0	2	2	7	5	5	1	11	0	1	0	1	12	19
15:15	15:30	2	1	0	3	0	2	3	5	8	2	2	2	6	0	3	1	4	10	18
15:30	15:45	2	4	0	6	0	1	2	3	9	0	1	1	2	0	6	0	6	8	17
15:45	16:00	2	0	0	2	1	3	1	5	7	0	0	6	6	0	0	0	0	6	13
16:00	16:15	2	1	0	3	0	1	1	2	5	2	1	1	4	0	0	0	0	4	9
16:15	16:30	3	0	0	3	0	4	2	6	9	4	0	3	7	0	0	0	0	7	16
16:45	17:00	0	0	0	0	0	1	1	2	2	1	1	2	4	0	0	1	1	5	7
17:00	17:15	8	1	0	9	0	0	1	1	10	0	0	3	3	0	2	1	3	6	16
17:15	17:30	2	0	0	2	0	0	1	1	3	1	0	0	1	0	1	0	1	2	5
17:30	17:45	4	0	0	4	0	0	1	1	5	2	1	5	8	0	0	0	0	8	13
Total:	None	71	56	4	131	10	60	46	116	247	46	30	47	123	3	31	10	44	167	414

Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ LIMEBANK RD

Survey Date: Wednesday, January 28, 2026

WO No: 43269

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	2	1	0	3
07:15	07:30	0	2	0	0	2
07:30	07:45	0	5	0	0	5
07:45	08:00	0	4	0	0	4
08:15	08:30	0	7	0	0	7
09:30	09:45	0	2	0	0	2
11:30	11:45	0	7	0	0	7
16:30	16:45	0	2	0	0	2
17:45	18:00	0	2	0	0	2
08:00	08:15	0	2	0	0	2
08:30	08:45	1	3	0	0	4
08:45	09:00	0	2	0	0	2
09:00	09:15	0	6	0	0	6
09:15	09:30	0	4	0	0	4
09:45	10:00	0	2	0	0	2
11:45	12:00	0	2	0	0	2
12:00	12:15	0	6	0	0	6
12:15	12:30	0	4	1	0	5
12:30	12:45	0	1	0	0	1
12:45	13:00	0	2	0	0	2
13:00	13:15	0	2	0	0	2
13:15	13:30	0	3	0	0	3
15:00	15:15	0	0	0	0	0
15:15	15:30	0	3	0	0	3
15:30	15:45	0	0	0	0	0
15:45	16:00	0	2	0	0	2
16:00	16:15	0	2	0	0	2
16:15	16:30	0	2	0	0	2
16:45	17:00	0	3	0	0	3
17:00	17:15	0	3	0	0	3
17:15	17:30	0	0	0	0	0
17:30	17:45	0	3	0	0	3
Total		1	90	2	0	93

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

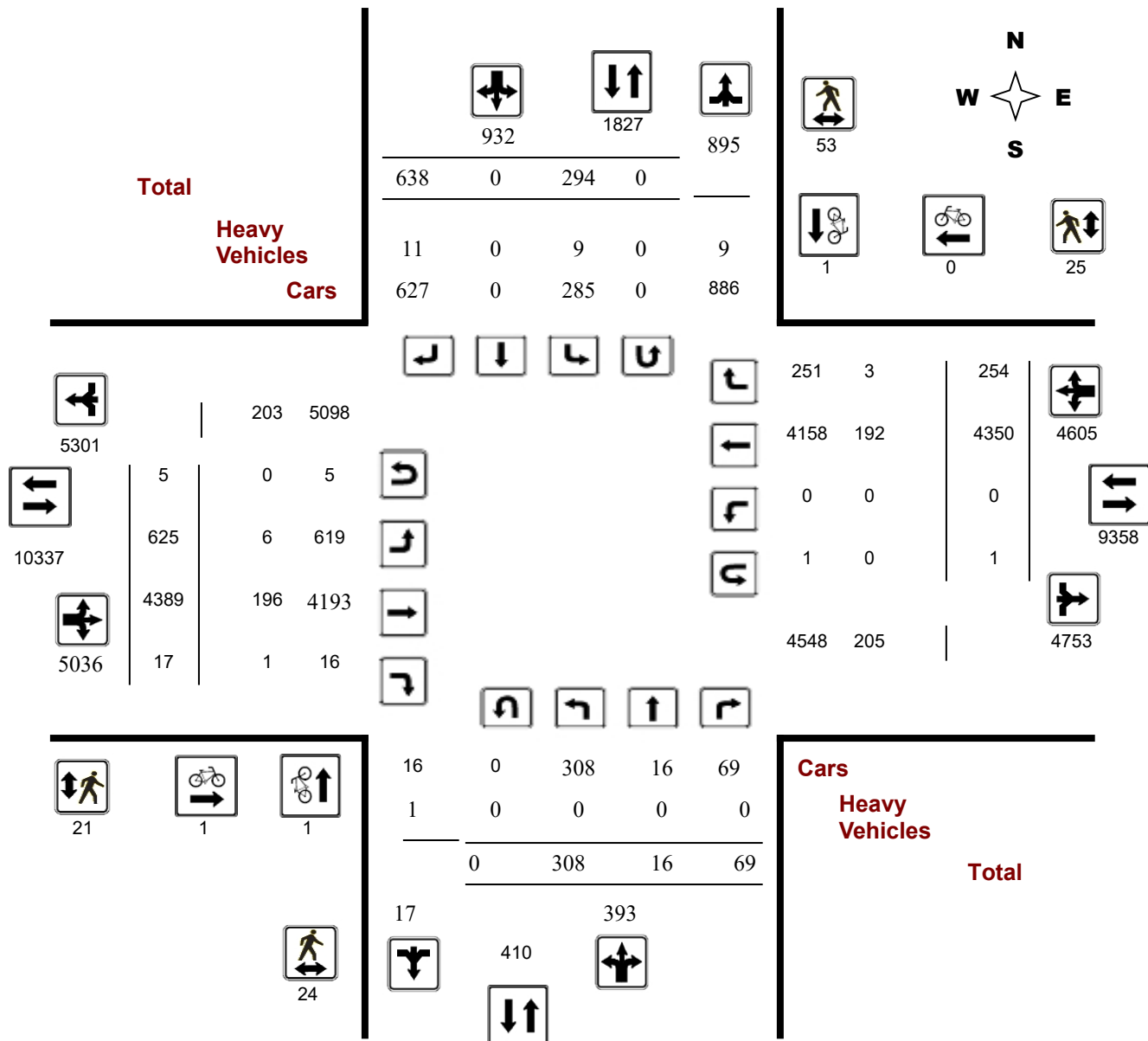
Survey Date: Wednesday, February 25, 2026

Start Time: 07:00

WO No: 43296

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

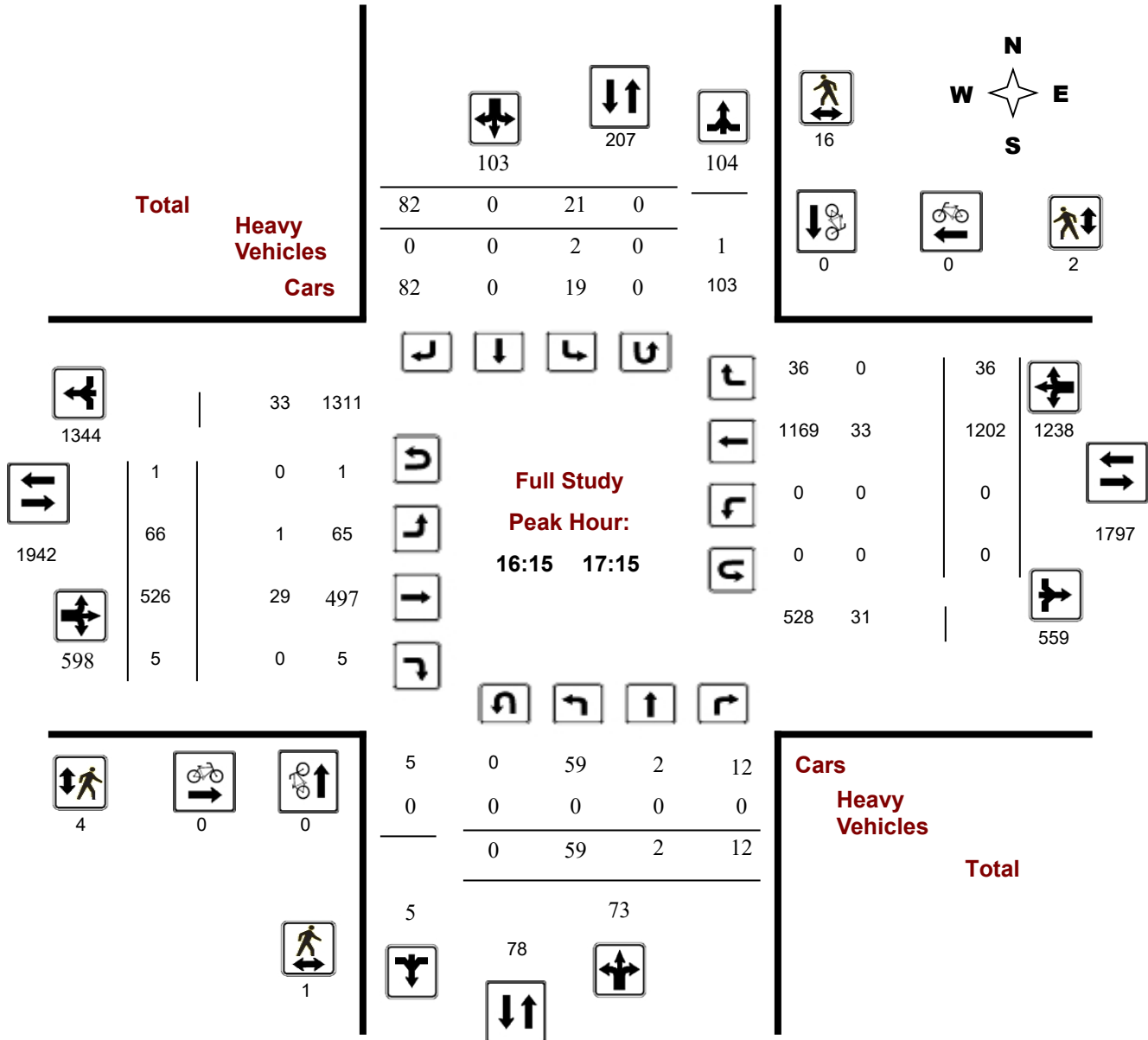
Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

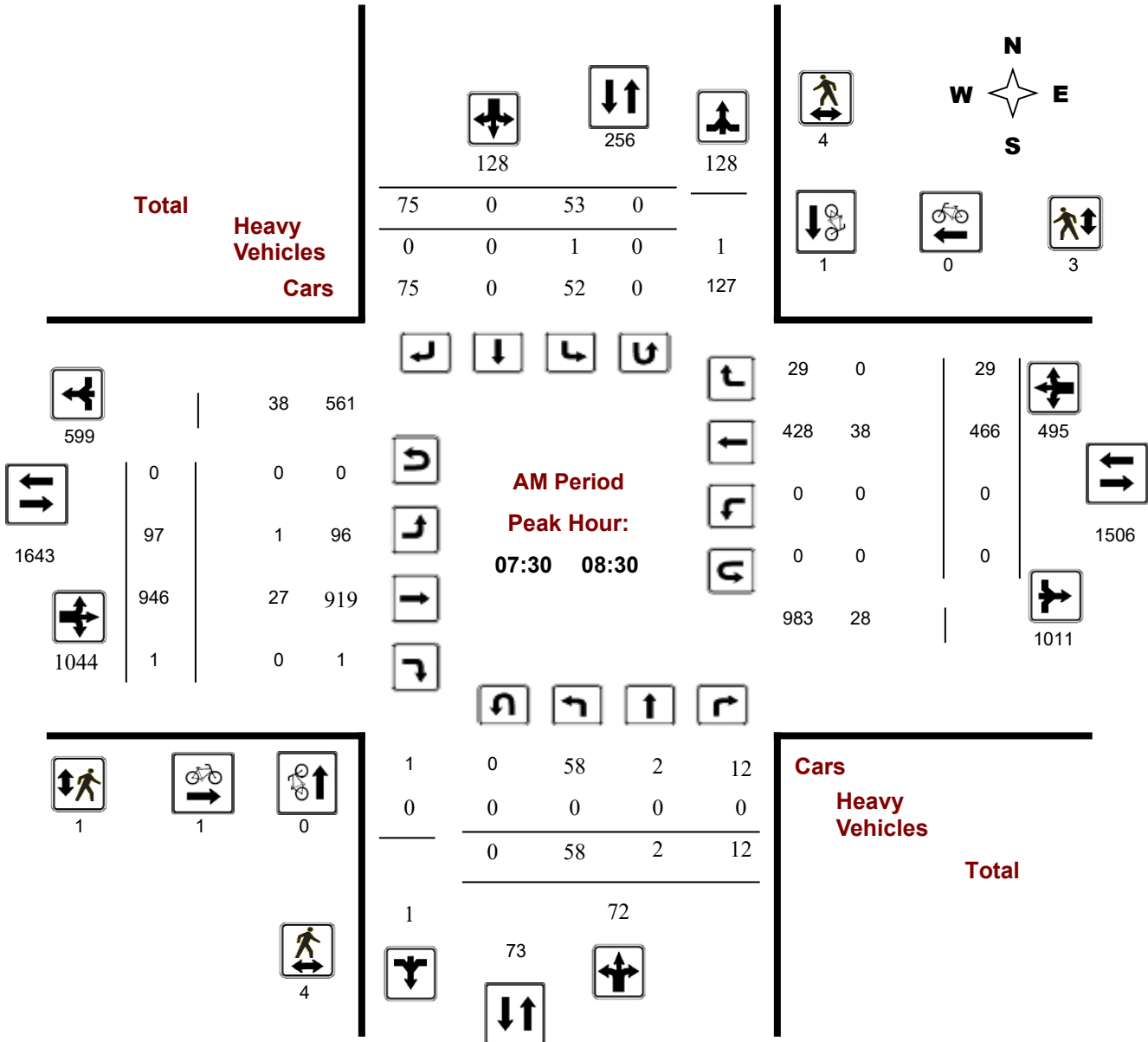
Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

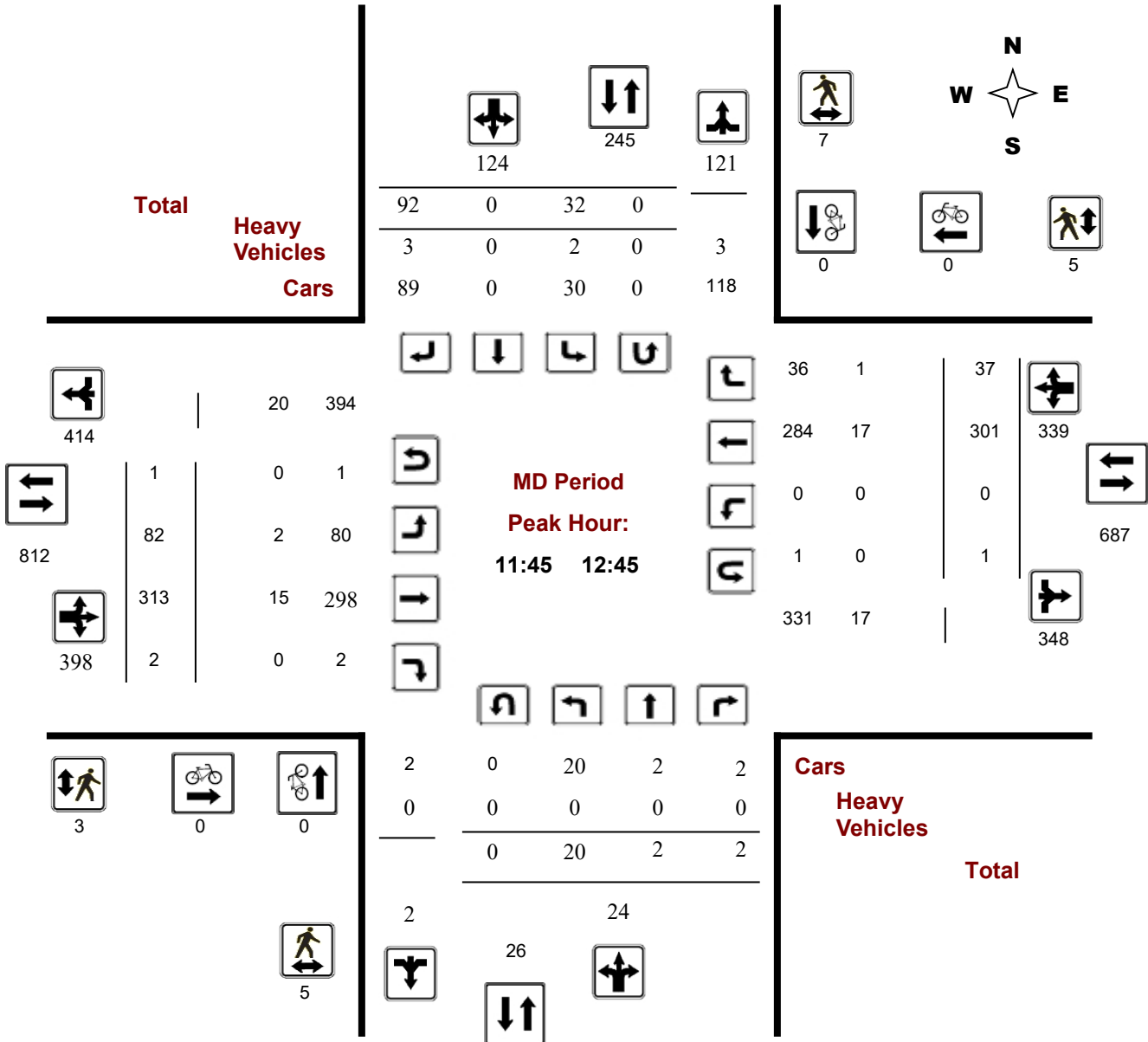
Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

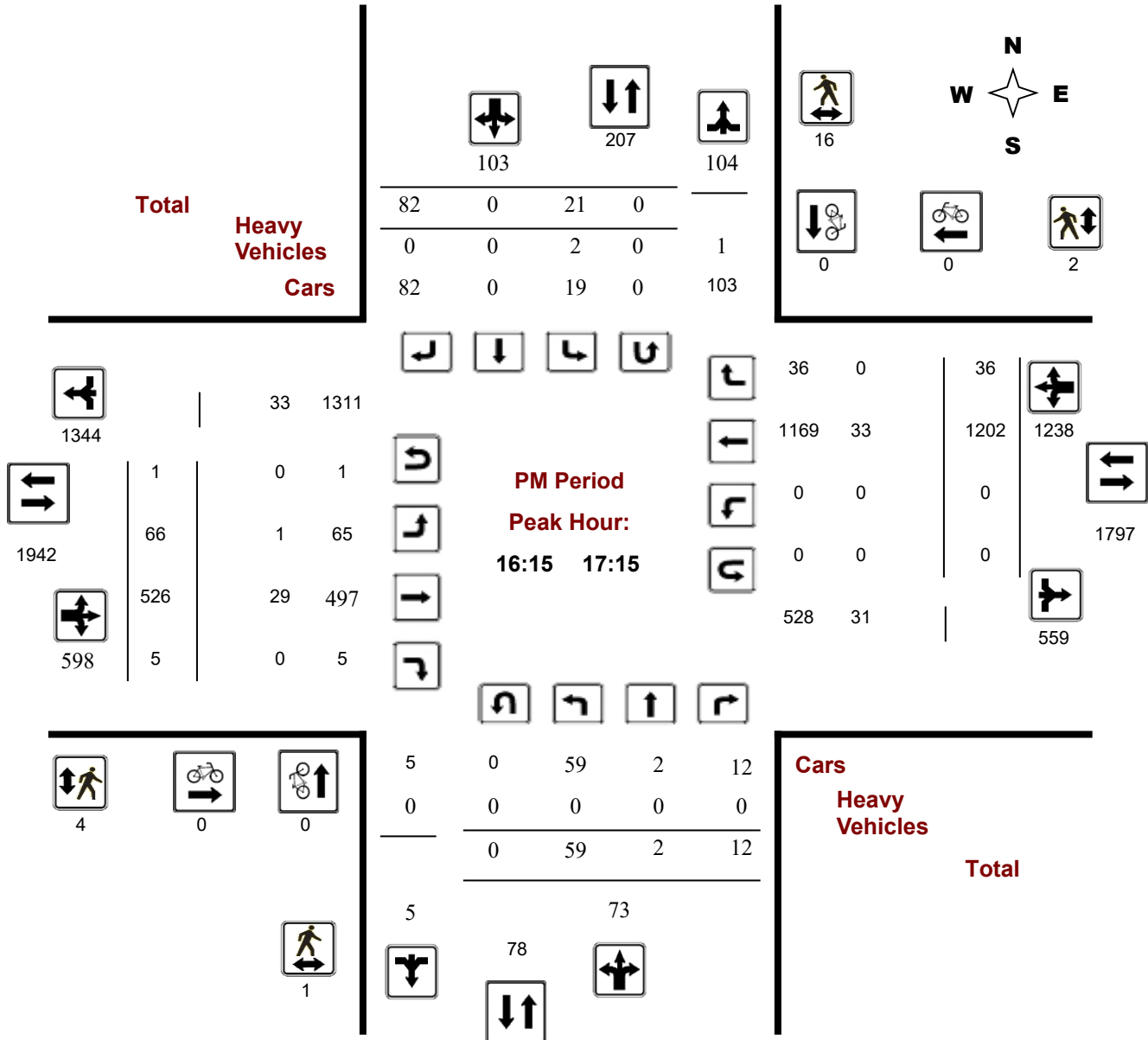
Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, February 25, 2026

Total Observed U-Turns
Northbound: 0 Southbound: 0
Eastbound: 5 Westbound: 1

AADT Factor
1.00

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	62	7	16	85	58	0	72	130	215	94	953	3	1050	0	355	30	385	1435	1650
08:00 09:00	43	1	8	52	57	0	50	107	159	91	800	3	894	0	397	29	426	1320	1479
09:00 10:00	30	1	7	38	33	0	75	108	146	83	518	1	602	0	233	29	262	864	1010
11:30 12:30	18	2	4	24	35	0	73	108	132	71	314	2	387	0	302	42	344	731	863
12:30 13:30	17	0	1	18	34	0	106	140	158	66	307	2	375	0	306	31	337	712	870
15:00 16:00	33	3	8	44	23	0	76	99	143	68	498	0	566	0	706	27	733	1299	1442
16:00 17:00	44	1	7	52	26	0	66	92	144	62	505	4	571	0	1144	31	1175	1746	1890
17:00 18:00	61	1	18	80	28	0	120	148	228	90	494	2	586	0	907	35	942	1528	1756
Sub Total	308	16	69	393	294	0	638	932	1325	625	4389	17	5031	0	4350	254	4604	9635	10960
U Turns				0				0	0				5				1	6	6
Total	308	16	69	393	294	0	638	932	1325	625	4389	17	5036	0	4350	254	4605	9641	10966
EQ 12Hr	428	22	96	546	409	0	887	1295	1842	869	6101	24	7000	0	6046	353	6401	13401	15243

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

1.39

AVG 12Hr	428	22	96	546	409	0	1162	1295	1842	869	6101	24	7000	0	6046	353	6401	13401	15243
-----------------	-----	----	----	-----	-----	---	------	------	------	-----	------	----	------	---	------	-----	------	-------	-------

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

1.00

AVG 24Hr	561	29	126	715	536	0	1522	1696	2413	1138	7992	31	9170	0	7920	462	8385	17555	19968
-----------------	-----	----	-----	-----	-----	---	------	------	------	------	------	----	------	---	------	-----	------	-------	-------

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

EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	13	1	4	18	14	0	6	20	38	17	203	0	220	0	53	6	59	279	317
07:15	07:30	16	4	6	26	14	0	14	28	54	23	213	3	239	0	56	8	64	303	357
07:30	07:45	16	1	4	21	15	0	29	44	65	32	264	0	296	0	104	3	107	403	468
08:00	08:15	13	0	3	16	12	0	9	21	37	15	202	1	218	0	124	7	131	349	386
16:45	17:00	15	1	1	17	4	0	20	24	41	19	126	0	145	0	308	7	315	460	501
17:45	18:00	16	0	3	19	8	0	29	37	56	18	91	0	109	0	201	6	207	316	372
07:45	08:00	17	1	2	20	15	0	23	38	58	22	273	0	295	0	142	13	155	450	508
08:15	08:30	12	0	3	15	11	0	14	25	40	28	207	0	235	0	96	6	102	337	377
08:30	08:45	8	0	2	10	20	0	12	32	42	26	246	1	273	0	90	5	95	368	410
08:45	09:00	10	1	0	11	14	0	15	29	40	22	145	1	169	0	87	11	98	267	307
09:00	09:15	9	0	1	10	10	0	23	33	43	20	150	0	170	0	71	9	80	250	293
09:15	09:30	11	0	2	13	9	0	20	29	42	27	143	0	170	0	61	6	67	237	279
09:30	09:45	6	0	2	8	7	0	14	21	29	15	124	0	139	0	50	8	58	197	226
09:45	10:00	4	1	2	7	7	0	18	25	32	21	101	1	123	0	51	6	57	180	212
11:30	11:45	5	0	2	7	10	0	11	21	28	15	80	1	96	0	71	13	84	180	208
11:45	12:00	5	0	1	6	10	0	23	33	39	28	84	0	113	0	73	8	82	195	234
12:00	12:15	5	0	0	5	8	0	18	26	31	16	76	1	93	0	78	10	88	181	212
12:15	12:30	3	2	1	6	7	0	21	28	34	12	74	0	86	0	80	11	91	177	211
12:30	12:45	7	0	0	7	7	0	30	37	44	26	79	1	106	0	70	8	78	184	228
12:45	13:00	4	0	1	5	11	0	37	48	53	12	75	0	88	0	79	12	91	179	232
13:00	13:15	2	0	0	2	8	0	18	26	28	13	77	0	90	0	86	8	94	184	212
13:15	13:30	4	0	0	4	8	0	21	29	33	15	76	1	92	0	71	3	74	166	199
15:00	15:15	8	1	4	13	7	0	21	28	41	16	120	0	136	0	153	7	160	296	337
15:15	15:30	9	1	0	10	4	0	17	21	31	17	122	0	139	0	163	9	172	311	342
15:30	15:45	11	1	0	12	8	0	19	27	39	18	131	0	149	0	204	4	208	357	396
15:45	16:00	5	0	4	9	4	0	19	23	32	17	125	0	142	0	186	7	193	335	367
16:00	16:15	12	0	2	14	9	0	16	25	39	13	127	0	140	0	242	7	249	389	428
16:15	16:30	8	0	1	9	5	0	14	19	28	19	126	0	145	0	289	5	294	439	467
16:30	16:45	9	0	3	12	8	0	16	24	36	11	126	4	141	0	305	12	317	458	494
17:00	17:15	27	1	7	35	4	0	32	36	71	17	148	1	167	0	300	12	312	479	550
17:15	17:30	8	0	5	13	5	0	23	28	41	18	111	0	129	0	197	9	206	335	376
17:30	17:45	10	0	3	13	11	0	36	47	60	37	144	1	183	0	209	8	217	400	460
Total:		308	16	69	393	294	0	638	932	1325	625	4389	17	5036	0	4350	254	4605	9641	10,966

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

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



Transportation Services - Traffic Services

Turning Movement Count - Study Results EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	3	4	1	0	1	5
07:15 07:30	1	2	3	0	2	2	5
07:30 07:45	0	3	3	0	1	1	4
08:00 08:15	2	0	2	1	1	2	4
16:45 17:00	1	7	8	1	1	2	10
17:45 18:00	0	1	1	0	1	1	2
07:45 08:00	2	1	3	0	1	1	4
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	1	0	1	1
08:45 09:00	0	0	0	1	1	2	2
09:00 09:15	1	0	1	1	0	1	2
09:15 09:30	1	1	2	1	0	1	3
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	1	1	0	1	1	2
11:30 11:45	1	1	2	0	1	1	3
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	1	1	2	2	0	2	4
12:15 12:30	2	3	5	0	5	5	10
12:30 12:45	2	3	5	1	0	1	6
12:45 13:00	0	3	3	0	1	1	4
13:00 13:15	1	0	1	1	1	2	3
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	1	2	3	1	0	1	4
15:15 15:30	0	1	1	0	0	0	1
15:30 15:45	0	3	3	0	1	1	4
15:45 16:00	0	1	1	0	3	3	4
16:00 16:15	4	1	5	2	3	5	10
16:15 16:30	0	4	4	0	0	0	4
16:30 16:45	0	2	2	3	0	3	5
17:00 17:15	0	3	3	0	1	1	4
17:15 17:30	2	0	2	3	0	3	5
17:30 17:45	1	6	7	1	0	1	8
Total	24	53	77	21	25	46	123



Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	0	0	0	0	0	0	0	0	0	0	6	0	6	0	3	0	3	9	9
07:15	07:30	0	0	0	0	0	0	0	0	0	0	4	0	4	0	6	0	6	10	10
07:30	07:45	0	0	0	0	0	0	0	0	0	0	10	0	10	0	6	0	6	16	16
08:00	08:15	0	0	0	0	0	0	0	0	0	1	7	0	8	0	5	0	5	13	13
16:45	17:00	0	0	0	0	0	0	0	0	0	0	6	0	6	0	4	0	4	10	10
17:45	18:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	6	0	6	9	9
07:45	08:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	9	0	9	12	12
08:15	08:30	0	0	0	0	1	0	0	1	1	0	7	0	7	0	18	0	18	25	26
08:30	08:45	0	0	0	0	0	0	0	0	0	0	8	0	8	0	4	1	5	13	13
08:45	09:00	0	0	0	0	0	0	1	1	1	0	4	0	4	0	7	0	7	11	12
09:00	09:15	0	0	0	0	0	0	1	1	1	0	10	0	10	0	3	0	3	13	14
09:15	09:30	0	0	0	0	0	0	0	0	0	0	6	0	6	0	3	0	3	9	9
09:30	09:45	0	0	0	0	1	0	4	5	5	0	6	0	6	0	5	1	6	12	17
09:45	10:00	0	0	0	0	0	0	1	1	1	1	8	1	10	0	4	0	4	14	15
11:30	11:45	0	0	0	0	1	0	0	1	1	0	2	0	2	0	4	0	4	6	7
11:45	12:00	0	0	0	0	1	0	0	1	1	0	5	0	5	0	4	0	4	9	10
12:00	12:15	0	0	0	0	0	0	1	1	1	2	3	0	5	0	4	1	5	10	11
12:15	12:30	0	0	0	0	1	0	0	1	1	0	5	0	5	0	3	0	3	8	9
12:30	12:45	0	0	0	0	0	0	2	2	2	0	2	0	2	0	6	0	6	8	10
12:45	13:00	0	0	0	0	0	0	0	0	0	0	9	0	9	0	7	0	7	16	16
13:00	13:15	0	0	0	0	1	0	0	1	1	0	13	0	13	0	6	0	6	19	20
13:15	13:30	0	0	0	0	1	0	0	1	1	0	6	0	6	0	3	0	3	9	10
15:00	15:15	0	0	0	0	0	0	0	0	0	0	6	0	6	0	10	0	10	16	16
15:15	15:30	0	0	0	0	0	0	0	0	0	0	10	0	10	0	7	0	7	17	17
15:30	15:45	0	0	0	0	0	0	1	1	1	0	5	0	5	0	10	0	10	15	16
15:45	16:00	0	0	0	0	0	0	0	0	0	0	8	0	8	0	7	0	7	15	15
16:00	16:15	0	0	0	0	0	0	0	0	0	1	6	0	7	0	3	0	3	10	10
16:15	16:30	0	0	0	0	1	0	0	1	1	1	7	0	8	0	8	0	8	16	17
16:30	16:45	0	0	0	0	1	0	0	1	1	0	6	0	6	0	11	0	11	17	18
17:00	17:15	0	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10	20	20
17:15	17:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
17:30	17:45	0	0	0	0	0	0	0	0	0	0	4	0	4	0	5	0	5	9	9
Total:	None	0	0	0	0	9	0	11	20	20	6	196	1	203	0	192	3	195	398	418

Transportation Services - Traffic Services

Turning Movement Count - Study Results

EARL ARMSTRONG RD @ TOWN SQUARE PL

Survey Date: Wednesday, February 25, 2026

WO No: 43296

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
08:00	08:15	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	1	0	1
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	1	1	2
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	1	0	1
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
17:00	17:15	0	0	1	0	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	1	0	1
Total		0	0	5	1	6

Appendix C:

Collision Data



Transportation Services - Traffic Services

Collision Details Report - Public Version

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

Location: CANYON WALK DR/PORTICO WAY @ EARL ARMSTRONG RD

Traffic Control: Traffic signal

Total Collisions: 10

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Nov-26, Tue,16:58	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-Dec-02, Mon,17:50	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2020-May-05, Tue,06:42	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2021-Feb-24, Wed,19:56	Snow	Turning movement	P.D. only	Loose snow	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2022-Feb-12, Sat,10:19	Drifting Snow	SMV other	P.D. only	Ice	East	Going ahead	Automobile, station wagon	Skidding/sliding	0
2022-Jun-19, Sun,18:30	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2022-Aug-11, Thu,01:36	Clear	SMV other	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Curb	0
2022-Sep-28, Wed,17:11	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Delivery van	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2024-Jan-15, Mon,14:00	Clear	Other	P.D. only	Slush	South	Stopped	Automobile, station wagon	Farm tractor	0
					South	Reversing	Farm tractor	Other motor vehicle	
2024-Mar-14, Thu,15:15	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Motor home	Other motor vehicle	

Location: EARL ARMSTRONG RD @ LIMEBANK RD

Traffic Control: Traffic signal

Total Collisions: 29

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Feb-28, Thu,15:50	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

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

Location: EARL ARMSTRONG RD @ LIMEBANK RD

Traffic Control: Traffic signal

Total Collisions: 29

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2019-Apr-03, Wed,16:00	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-Jun-01, Sat,09:58	Clear	Angle	Non-fatal injury	Dry	East	Turning right	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
					South	Going ahead	Bicycle	Other motor vehicle	
2019-Jul-11, Thu,15:50	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-29, Mon,17:20	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-Oct-16, Wed,17:30	Rain	Rear end	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Nov-29, Fri,11:40	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Curb	0
2020-Jan-22, Wed,14:20	Clear	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Passenger van	Other motor vehicle	
2020-Feb-06, Thu,18:46	Snow	Angle	Non-fatal injury	Loose snow	South	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Passenger van	Other motor vehicle	
2021-Feb-22, Mon,00:34	Clear	Other	P.D. only	Dry	North	Reversing	Construction equipment	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2021-Jul-09, Fri,13:30	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
2021-Sep-08, Wed,17:34	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	



Transportation Services - Traffic Services

Collision Details Report - Public Version

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

Location: EARL ARMSTRONG RD @ LIMEBANK RD

Traffic Control: Traffic signal

Total Collisions: 29

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2021-Sep-16, Thu,17:05	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
2022-Feb-13, Sun,14:43	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	
2022-Apr-21, Thu,08:02	Clear	Rear end	P.D. only	Dry	West	Turning right	Truck - open	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2022-Jul-29, Fri,17:30	Clear	Rear end	P.D. only	Dry	South	Turning right	Passenger van	Other motor vehicle	0
					South	Turning right	Pick-up truck	Other motor vehicle	
2022-Sep-20, Tue,18:20	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2022-Dec-13, Tue,09:00	Clear	Turning movement	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2022-Dec-23, Fri,10:05	Snow	Rear end	P.D. only	Slush	West	Stopped	Automobile, station wagon	Other motor vehicle	0
					West	Merging	Automobile, station wagon	Other motor vehicle	
2024-Mar-12, Tue,17:45	Clear	Turning movement	P.D. only	Dry	North	Stopped	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2024-May-09, Thu,21:05	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2024-Jun-13, Thu,15:15	Clear	Rear end	P.D. only	Dry	West	Merging	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2024-Jul-04, Thu,16:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2024-Jul-29, Mon,17:30	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

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

Location: EARL ARMSTRONG RD @ LIMEBANK RD

Traffic Control: Traffic signal

Total Collisions: 29

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2024-Jul-31, Wed,16:45	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2024-Aug-20, Tue,18:00	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2024-Sep-17, Tue,05:40	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2024-Sep-27, Fri,15:30	Clear	Rear end	P.D. only	Dry	West	Merging	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2024-Nov-20, Wed,10:00	Clear	Rear end	P.D. only	Dry	North	Stopped	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: EARL ARMSTRONG RD btwn CANYON WALK DR/PORTICO WAY & LIMEBANK RD

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2021-Feb-14, Sun,07:00	Snow	SMV other	P.D. only	Loose snow	East	Going ahead	Pick-up truck	Ran off road	0

Appendix D:

Other Area Development Trip Generation

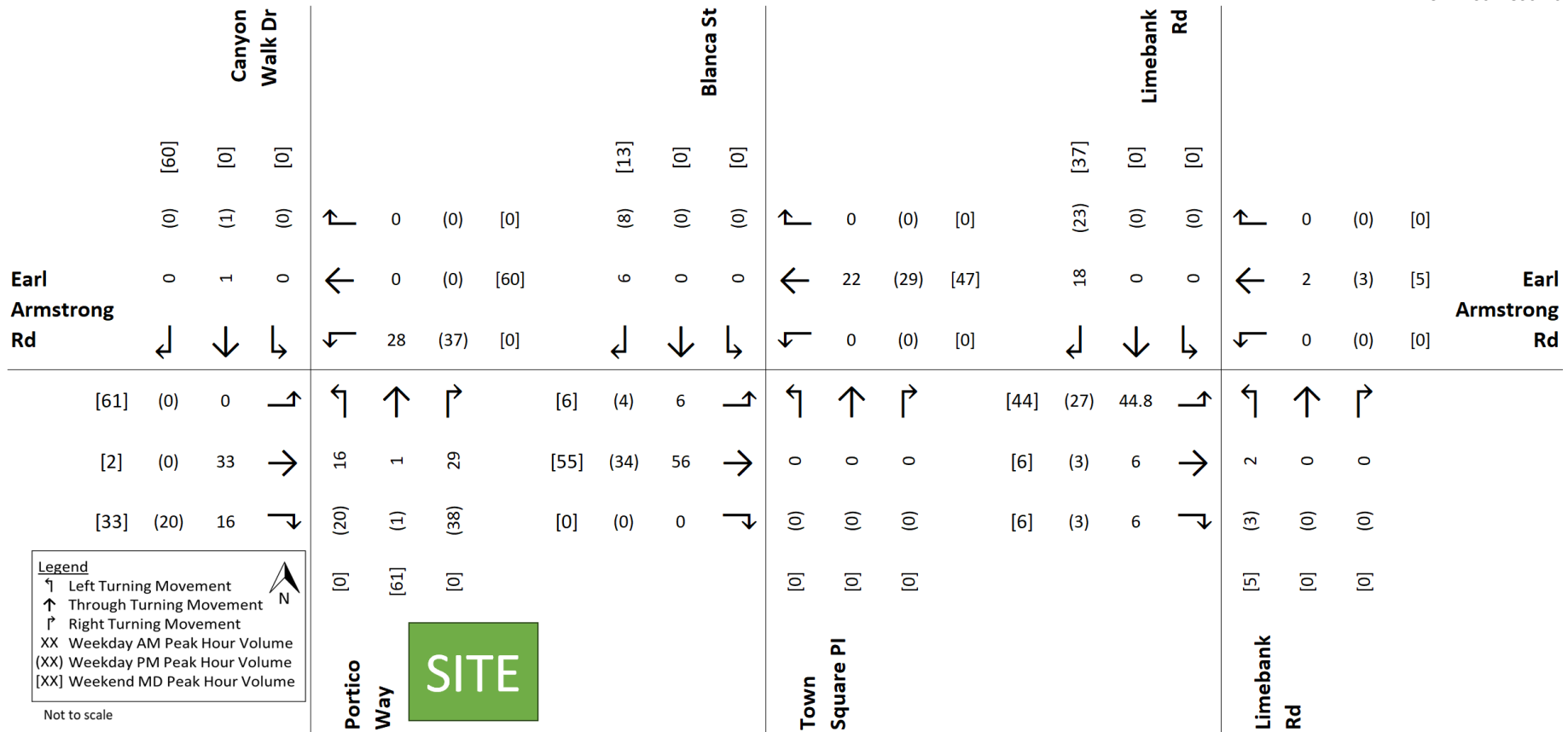


Figure 14: New Site Generated Trip Volumes

Table 9: Phase 1 Peak Hour Person Trips

LAND USE	SIZE	PEAK HOUR	PERSON TRIPS (PPH) ¹		
			IN	OUT	TOTAL
Mid-Rise Residential ²	120 units	AM	15	33	48
		PM	28	20	48
		SAT	32	30	62
High-Rise Residential ³	655 units	AM	82	182	264
		PM	150	109	259
		SAT	187	142	329
822: Strip Retail Plaza (<40k)	1,858 m²	AM	35	24	59
		PM	82	81	163
		SAT	86	82	168
495: Recreational Community Centre	1,997 m²	AM	35	18	53
		PM	54	60	114
		SAT	32	28	60
590: Library	1,394 m²	AM	10	5	15
		PM	76	82	158
		SAT	128	114	242
411: Public Park	10.6 hectares	AM	0	1	1
		PM	17	14	31
		SAT	22	19	41
488: Soccer Complex	3 fields	AM	3	1	4
		PM	65	33	98
		SAT	145	156	301
490: Tennis Courts	5 courts	AM	15	12	27
		PM	15	12	27
		SAT	15	12	27
Total		AM	195	276	471
		PM	487	411	898
		SAT	647	583	1,230

Notes: pph = person-trips per hour

¹ Peak hour person-trips were calculated on a block-by-block basis then summed to establish the total trip generation of the land use.

² Weekday morning and afternoon trips were calculated using the trip generation rates for Multi-Unit (High-Rise) from the 2020 TRANS Trip Generation Manual (i.e., 3-storeys or more). Saturday trips were calculated using the trip generation rates for ITE land use 221: Multifamily Housing (Mid-Rise) (i.e., between 4 and 10 storeys).

³ Weekday morning and afternoon trips were calculated using the trip generation rates for Multi-Unit (High-Rise) from the 2020 TRANS Trip Generation Manual (i.e., 3-storeys or more). Saturday trips were calculated using the trip generation rates for ITE land use 222: Multifamily Housing (High-Rise) (i.e., 11 storeys or more).

Table 10: Phase 1 & 2 Peak Hour Person Trips

LAND USE	SIZE	PERIOD	GENERATED TRIPS (PPH) ¹		
			IN	OUT	TOTAL
Mid-Rise Residential ²	120 units	AM	15	33	48
		PM	28	20	48
		SAT	32	30	62
High-Rise Residential ³	1,155 units	AM	144	320	464
		PM	265	192	457
		SAT	319	241	560
822: Strip Retail Plaza (<40k)	3,716 m²	AM	70	48	118
		PM	164	162	326
		SAT	172	164	336
495: Recreational Community Centre	1,997 m²	AM	35	18	53
		PM	54	60	114
		SAT	32	28	60
590: Library	1,394 m²	AM	10	5	15
		PM	76	82	158
		SAT	128	114	242
411: Public Park	10.6 hectares	AM	0	1	1
		PM	17	14	31
		SAT	22	19	41
488: Soccer Complex	3 fields	AM	3	1	4
		PM	65	33	98
		SAT	145	156	301
490: Tennis Courts	5 courts	AM	15	12	27
		PM	15	12	27
		SAT	15	12	27
Total		AM	292	438	730
		PM	684	575	1,259
		SAT	865	764	1,629

Notes: pph = person-trips per hour

¹ Peak hour person-trips were calculated on a block-by-block basis then summed to establish the total trip generation of the land use.

² Weekday morning and afternoon trips were calculated using the trip generation rates for Multi-Unit (High-Rise) from the 2020 TRANS Trip Generation Manual (i.e., 3-storeys or more). Saturday trips were calculated using the trip generation rates for ITE land use 221: Multifamily Housing (Mid-Rise) (i.e., between 4 and 10 storeys).

³ Weekday morning and afternoon trips were calculated using the trip generation rates for Multi-Unit (High-Rise) from the 2020 TRANS Trip Generation Manual (i.e., 3-storeys or more). Saturday trips were calculated using the trip generation rates for ITE land use 222: Multifamily Housing (High-Rise) (i.e., 11 storeys or more).

Table 14: Phase 1 Peak Hour Person-Trips by Mode (External Trips Only)

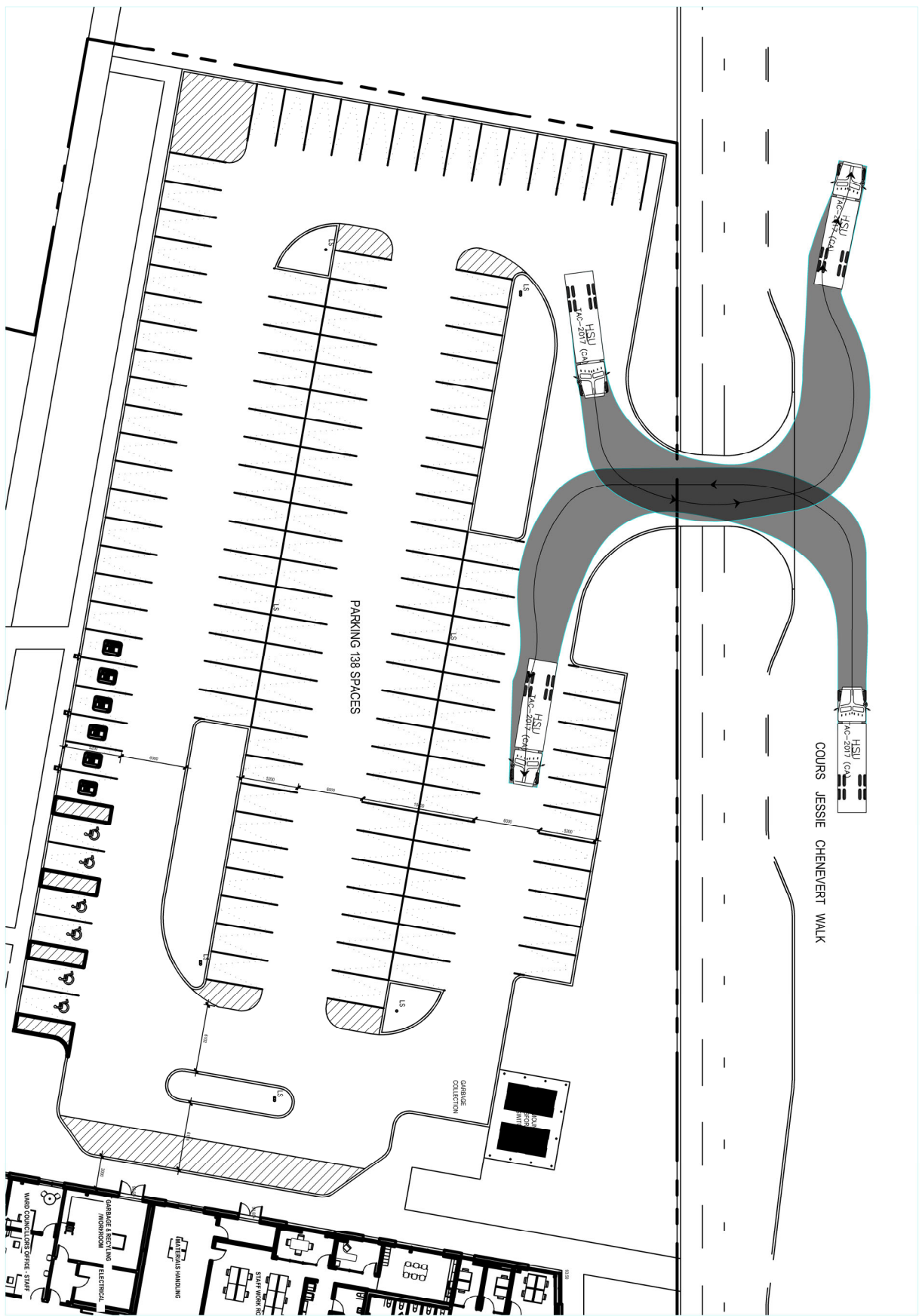
MODE	AM			PM			SAT		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	55	55	110	154	130	284	207	188	395
<i>New Trips</i>	55	55	110	136	112	248	186	167	353
<i>Pass-By</i>	0	0	0	18	18	36	21	21	42
Auto Passenger	16	19	35	41	34	75	55	49	104
Transit	98	170	268	197	161	358	245	215	460
Cycling	3	5	8	6	5	11	8	7	15
Walking	25	38	63	55	45	100	68	60	128
Total	197	287	484	453	375	828	583	519	1,102

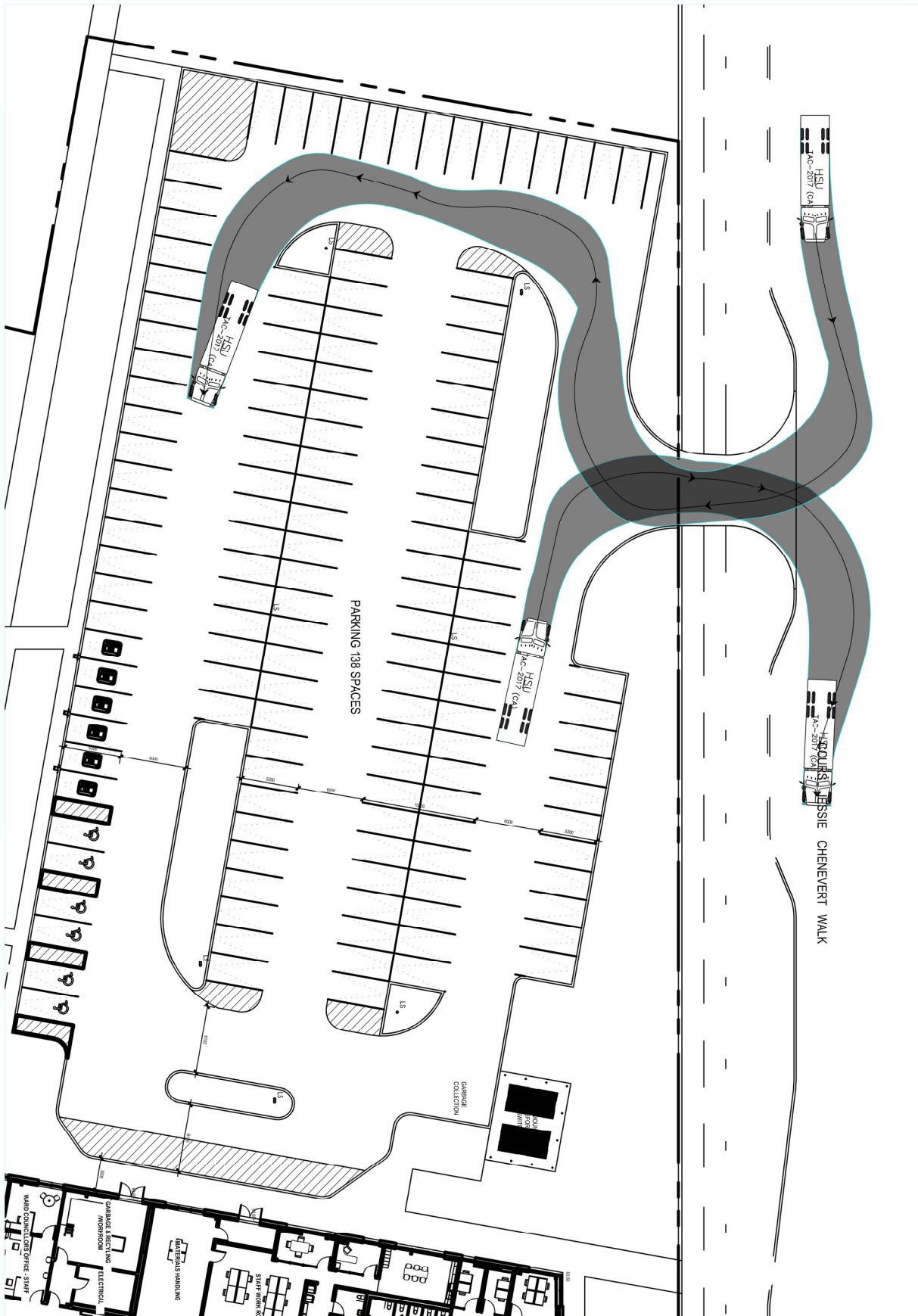
Table 15: Phase 1 & 2 Peak Hour Person-Trips by Mode (External Trips Only)

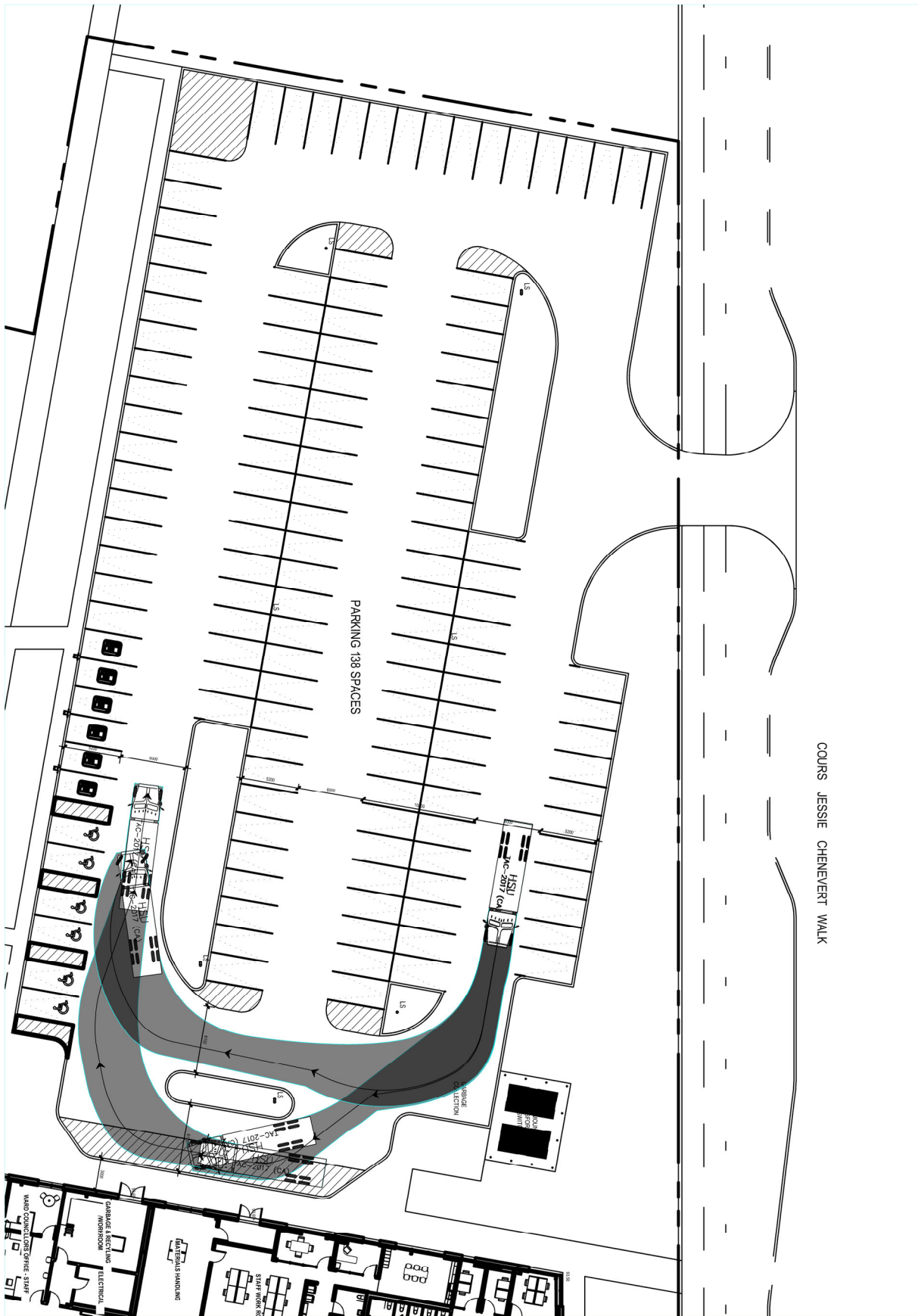
MODE	AM			PM			SAT		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	78	83	161	198	164	362	252	221	473
<i>New Trips</i>	78	83	161	162	128	290	209	178	387
<i>Pass-By</i>	0	0	0	36	36	72	43	43	86
Auto Passenger	23	29	52	54	45	99	68	60	128
Transit	151	273	424	281	227	508	331	284	615
Cycling	5	9	14	9	7	16	10	9	19
Walking	37	61	98	76	62	138	88	76	164
Total	294	455	749	618	505	1,123	749	650	1,399

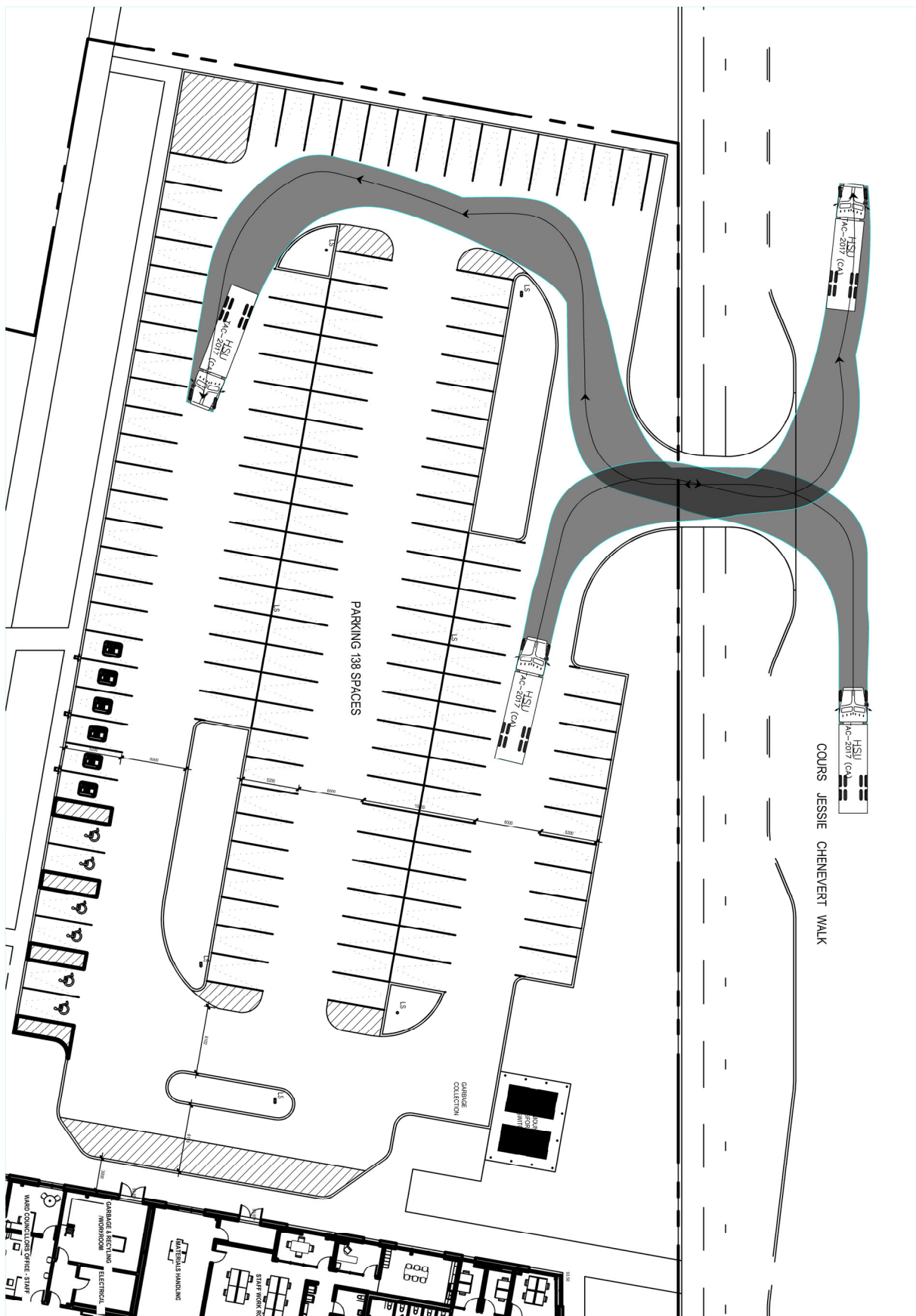
Appendix E:

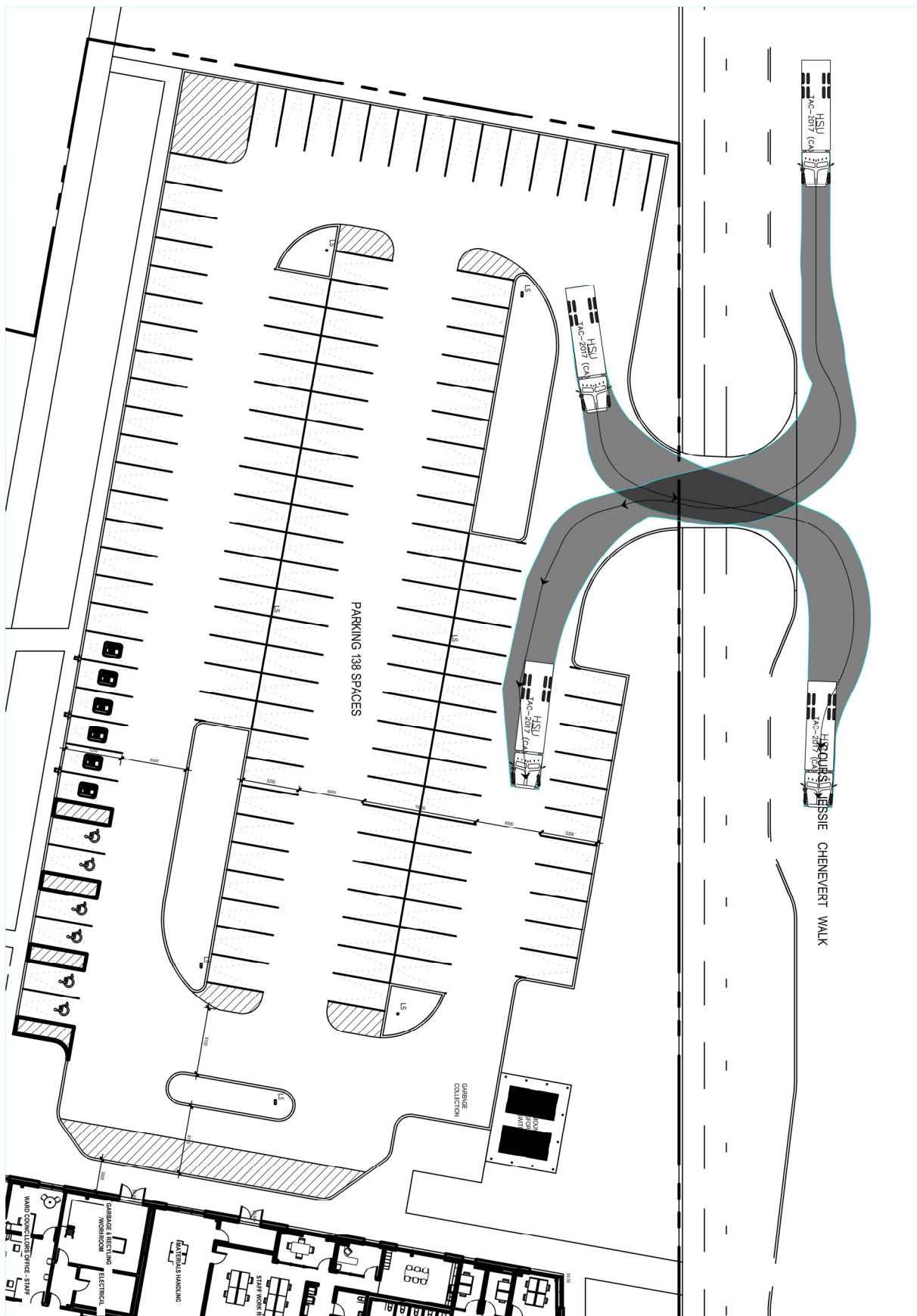
Truck Turning Movements

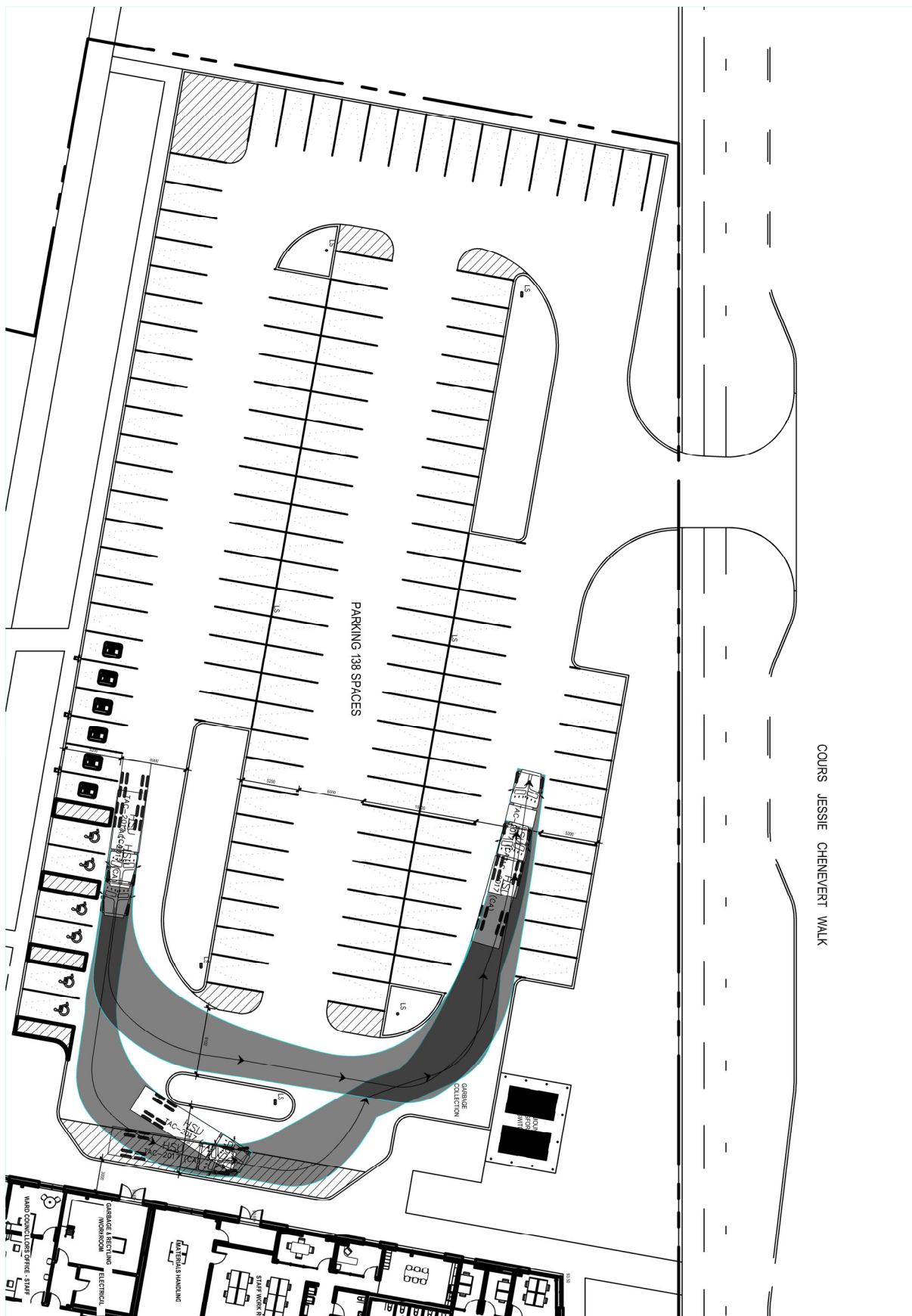




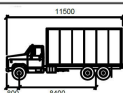








Legend



HSU

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

mm

Drawing Description: Truck Turning Templates, Internal Counterclockwise

Client: City of Ottawa

Date: 20/07/2026

Project Number: 479818

Not to Scale

Appendix F:

Multi Modal Level of Service (MMLoS)

Multi-Modal Level of Service - Intersections Form

Project: Riverside South Library and Community Centre
Consultant: Parsons Inc.
Date: Jul 16, 2026
Scenario: Existing and Future 2035

Intersection Name		Earl Armstrong / Portico Way - EXISTING				Earl Armstrong / Town Square - EXISTING				Earl Armstrong / Lincoln	
OP Transect / Policy Area		Downtown Core, Inner Urban, Hub and/or Special District				Within 600m of a rapid transit station				Within 600m of a rapid transit station	
Pedestrian	PLOS Inputs										
	Pedestrians Crossing the	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg
	Number of Travel Lanes Crossed	6	5	7	7	4	4	7	7	8	8
	Median Refuge (≥2.7m)	No	No	No	No	No	No	Yes	No	No	No
	Crosswalk Treatment	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings
	Signal Cycle Length (sec)			120.0				120.0			120.0
	Effective Walk Time (sec)	61.0	61.0	8.0	8.0	69.0	69.0	7.5	7.5	2.0	2.0
	Conflict with Right-Turn Vehicles (For PLOS & BLOS)	WBR	EBR	NBR	SBR	WBR	EBR	NBR	SBR	WBR	EBR
	Right-Turn Geometry	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Conventional Right-Turn Channel	Conventional Right-Turn Channel
	Right-Turn Signal Phasing	-	-	-	-	-	-	-	-	-	-
	Right-Turn Volume	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	> 150 to 300 veh/h
	Right-Turn Effective Corner Radius	-	-	-	-	-	-	-	-	-	-
	Cross-street Posted Speed (km/h)	80 km/h		40 km/h		80 km/h		40 km/h		80 km/h	
	Conflict with Left-Turn Vehicles (For PLOS & BLOS)	EBL	WBL	SBL	NBL	EBL	WBL	SBL	NBL	EBL	WBL
Bicycle	Left-Turn Signal Phasing	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Fully Protected	Fully Protected
	Left-Turn Volume	> 100 veh/h	≤ 50 veh/h	≤ 50 veh/h	≤ 50 veh/h	> 50 to 100 veh/h	≤ 50 veh/h	> 50 to 100 veh/h	> 50 to 100 veh/h	-	-
	Left-Turn Opposing Lanes	-	-	-	-	≥ 2	-	≤ 1	≤ 1	-	-
	Score	2.30	3.10	1.45	1.45	3.50	3.70	2.05	1.45	0.70	0.70
	PLOS	D	C	E	E	B	B	D	E	E	E
	Target PLOS	A				A				A	
	BLOS Inputs										
	Cycling Route Classification	Cross-Town Bikeway				Cross-Town Bikeway				Cross-Town Bikeway	
	Cyclists Crossing the	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg
	Type of Cycling Facility Across Leg	Bike Lane Through Intersection	Bike Lane Through Intersection	Mixed Traffic	Mixed Traffic	Bike Lane Through Intersection	Bike Lane Through Intersection	Mixed Traffic	Mixed Traffic	Bike Lane Through Intersection	Bike Lane Through Intersection
	Two-Way ADT (in Cyclist Travel Direction)	19,400		1,100		17,000		1,880		12,365	
	Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing?	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
	Crossroad Operation	-	-	-	-	-	-	-	-	-	-
	Target Crossroad Setback Met?	-	-	-	-	-	-	-	-	-	-
	Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h?	-	-	-	-	-	-	-	-	-	-
Transit	Cyclist Left-Turn Operation	WBL	EBL	NBL	SBL	WBL	EBL	NBL	SBL	WBL	EBL
	Cyclist Left-Turn Treatment Type	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Dual Left-Turn Lanes	General Purpose Dual Left-Turn Lanes
	Vehicle Lanes Crossed by Cyclists	Two or More Lanes Crossed	Two or More Lanes Crossed	One Lane Crossed	One Lane Crossed	Two or More Lanes Crossed	Two or More Lanes Crossed	One Lane Crossed	One Lane Crossed	-	-
	Score	-15	25	95	95	-15	25	95	95	25	25
	BLOS	F	E	B	B	F	E	B	B	E	E
	Target BLOS	D				D				D	
	Target BLOS	A				A				A	
	TLOS Inputs										
	Transit Facility	Mixed Traffic				Mixed Traffic				Mixed Traffic	
	Vehicles Travelling	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound
	Average Transit Delay (if available)	36-55 sec	36-55 sec	11-20 sec	21-35 sec	36-55 sec	36-55 sec	≤ 10 sec	≤ 10 sec	56-80 sec	36-55 sec
	Example Transit Priority Treatment	-	-	-	-	-	-	-	-	-	-
	TLOS	D	D	B	C	D	D	A	A	E	D
	Target TLOS	E (D for frequent transit routes)				E (D for frequent transit routes)				E (D for frequent transit routes)	
Auto	AutoLOS Inputs										
	Overall Intersection Volume to Capacity Ratio	0.61 to 0.70				0 to 0.60				0.81 to 0.90	
	Individual Movements V/C Ratios and Queue Lengths	See Separate Traffic Operations Table				See Separate Traffic Operations Table				See Separate Traffic Operations Table	
	AutoLOS	B				A				C	
Target AutoLOS		E				E				E	

Multi-Modal Level of Service - Intersections Form
Project: Riverside South Library and Community C
Consultant: Parsons Inc.
Date: Jul 16, 2026
Scenario: Existing and Future 2035

Intersection Name mebank - EXISTING				Earl Armstrong / Portico Way - FUTURE				Earl Armstrong / Town Square - FUTURE			
OP Transect / Policy Areaapid transit station				Downtown Core, Inner Urban,Hub and/or Special District				Within 600m of a rapid transit station			
Pedestrian	PLOS Inputs										
	Pedestrians Crossing the	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg
	Number of Travel Lanes Crossed	8	8	6	5	7	7	4	4	7	7
	Median Refuge (≥2.7m)	No	No	No	No	No	No	No	No	Yes	No
	Crosswalk Treatment	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings
	Signal Cycle Length (sec)	2.8				120.0				120.0	
	Effective Walk Time (sec)	2.0	2.0	52.8	62.6	6.8	6.8	69.6	69.6	7.1	7.1
	Conflict with Right-Turn Vehicles (For PLOS & BLOS)	NBR	SBR	WBR	EBR	NBR	SBR	WBR	EBR	NBR	SBR
	Right-Turn Geometry	Conventional Right-Turn Channel	Conventional Right-Turn Channel	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing	Smart Channel w/o Raised Crossing
	Right-Turn Signal Phasing		-	-	-	-	-	-	-	-	-
	Right-Turn Volume	≤ 150 veh/h	> 300 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h	≤ 150 veh/h
	Right-Turn Effective Corner Radius	-	-	-	-	-	-	-	-	-	-
	Cross-street Posted Speed (km/h)	80 km/h		80 km/h		40 km/h		80 km/h		40 km/h	
	Conflict with Left-Turn Vehicles (For PLOS & BLOS)	SBL	NBL	EBL	WBL	SBL	NBL	EBL	WBL	SBL	NBL
Left-Turn Signal Phasing	Fully Protected	Fully Protected	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	Perm or Prot+Perm	
Left-Turn Volume	-	-	> 100 veh/h	≤ 50 veh/h	≤ 50 veh/h	> 50 to 100 veh/h	> 100 veh/h	> 50 to 100 veh/h	> 50 to 100 veh/h	> 50 to 100 veh/h	
Left-Turn Opposing Lanes	-	-	-	-	-	≤ 1	-	≥ 2	≤ 1	≤ 1	
Score	0.70	0.55	2.30	3.10	1.45	1.45	3.50	3.50	2.05	1.45	
PLOS	E	E	D	C	E	E	B	B	D	E	
Target PLOS	A		A				A				
Bicycle	BLOS Inputs										
	Cycling Route Classificationn Bikeway			Cross-Town Bikeway				Cross-Town Bikeway			
	Cyclists Crossing the	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg
	Type of Cycling Facility Across Leg	Bike Lane Through Intersection	Bike Lane Through Intersection	Bike Lane Through Intersection	Bike Lane Through Intersection	Mixed Traffic	Mixed Traffic	Bike Lane Through Intersection	Bike Lane Through Intersection	Mixed Traffic	Mixed Traffic
	Two-Way ADT (in Cyclist Travel Direction)	8,220		23,280		2,240		21,230		2,900	
	Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing?	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No
	Crossroad Operation	-	-	-	-	-	-	-	-	-	-
	Target Crossroad Setback Met?	-	-	-	-	-	-	-	-	-	-
	Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h?	-	-	-	-	-	-	-	-	-	-
	Cyclist Left-Turn Operation	NBL	SBL	WBL	EBL	NBL	SBL	WBL	EBL	NBL	SBL
	Cyclist Left-Turn Treatment Type	General Purpose Dual Left-Turn Lanes	General Purpose Dual Left-Turn Lanes	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane	General Purpose Through-Left or Single Left-Turn Lane
	Vehicle Lanes Crossed by Cyclists	-	-	Two or More Lanes Crossed	Two or More Lanes Crossed	One Lane Crossed	One Lane Crossed	Two or More Lanes Crossed	Two or More Lanes Crossed	One Lane Crossed	One Lane Crossed
	Score	25	25	-15	25	95	95	-15	-15	95	95
	BLOS	E	E	F	E	B	B	F	F	B	B
Target BLOS	A		A				A				
Transit	TLOS Inputs										
	Transit Facility Traffic			Mixed Traffic				Mixed Traffic			
	Vehicles Travelling	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound
	Average Transit Delay (if available)	36-55 sec	36-55 sec	36-55 sec	56-80 sec	11-20 sec	21-35 sec	36-55 sec	56-80 sec	≤ 10 sec	≤ 10 sec
	Example Transit Priority Treatment	-	-	-	-	-	-	-	-	-	-
	TLOS	D	D	D	E	B	C	D	E	A	A
	Target TLOS	it transit routes)			E (D for frequent transit routes)				E (D for frequent transit routes)		
Auto	AutoLOS Inputs										
	Overall Intersection Volume to Capacity Ratio Individual Movements	≥ 0.90		0.61 to 0.70				0 to 0.60			
	V/C Ratios and Queue Lengths	c Operations Table		See Separate Traffic Operations Table				See Separate Traffic Operations Table			
	AutoLOS	D		B				A			
Target AutoLOS	E		E				E				

Multi-Modal Level of Service - Intersections Form
Project: Riverside South Library and Community C
Consultant: Parsons Inc.
Date: Jul 16, 2026
Scenario: Existing and Future 2035

Intersection Name		Earl Armstrong / Limebank - FUTURE			
OP Transect / Policy Area		Within 600m of a rapid transit station			
Pedestrian	PLOS inputs				
	Pedestrians Crossing the	North Leg	South Leg	East Leg	West Leg
	Number of Travel Lanes Crossed	8	8	8	8
	Median Refuge (≥2.7m)	No	No	No	No
	Crosswalk Treatment	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings	Std Transverse Markings
	Signal Cycle Length (sec)	130.0			
	Effective Walk Time (sec)	7.0	16.0	30.4	28.8
	Conflict with Right-Turn Vehicles (For PLOS & BLOS)	WBR	EBR	NBR	SBR
	Right-Turn Geometry	Conventional Right-Turn Channel	Conventional Right-Turn Channel	Conventional Right-Turn Channel	Conventional Right-Turn Channel
	Right-Turn Signal Phasing	-	-	-	-
	Right-Turn Volume	≤ 150 veh/h	> 150 to 300 veh/h	≤ 150 veh/h	> 300 veh/h
	Right-Turn Effective Corner Radius	-	-	-	-
	Cross-street Posted Speed (km/h)	80 km/h		80 km/h	
	Conflict with Left-Turn Vehicles (For PLOS & BLOS)	EBL	WBL	SBL	NBL
	Left-Turn Signal Phasing	Fully Protected	Fully Protected	Fully Protected	Fully Protected
	Left-Turn Volume	-	-	-	-
	Left-Turn Opposing Lanes	-	-	-	-
	Score	0.70	0.70	0.85	0.70
PLOS	E	E	E	E	
Target PLOS	A				
Bicycle	BLOS inputs				
	Cycling Route Classification	Cross-Town Bikeway			
	Cyclists Crossing the	North Leg	South Leg	East Leg	West Leg
	Type of Cycling Facility Across Leg	Bike Lane Through Intersection	Bike Lane Through Intersection	Bike Lane Through Intersection	Bike Lane Through Intersection
	Two-Way ADT (in Cyclist Travel Direction)	15,570		10,415	
	Floating Bike Lane or Right-Turn Lane Crossover Approaching the Crossing?	Yes	Yes	Yes	Yes
	Crossroad Operation	-	-	-	-
	Target Crossroad Setback Met?	-	-	-	-
	Right-Turn Vehicle Volume from Adjacent Roadway > 100 veh/h?	-	-	-	-
	Cyclist Left-Turn Operation	WBL	EBL	NBL	SBL
	Cyclist Left-Turn Treatment Type	General Purpose Dual Left-Turn Lanes	General Purpose Dual Left-Turn Lanes	General Purpose Dual Left-Turn Lanes	General Purpose Dual Left-Turn Lanes
	Vehicle Lanes Crossed by Cyclists	-	-	-	-
	Score	25	25	25	25
	BLOS	E	E	E	E
Target BLOS	A				
Transit	TLOS inputs				
	Transit Facility	Mixed Traffic			
	Vehicles Travelling	Southbound	Northbound	Westbound	Eastbound
	Average Transit Delay (if available)	56-80 sec	> 80 sec	56-80 sec	> 80 sec
	Example Transit Priority Treatment	-	-	-	-
	TLOS	E	F	E	F
	Target TLOS	E (D for frequent transit routes)			
Auto	AutoLOS inputs				
	Overall Intersection Volume to Capacity Ratio Individual Movements	0.91 to 1.00			
	V/C Ratios and Queue Lengths	See Separate Traffic Operations Table			
	AutoLOS	E			
	Target AutoLOS	E			

Segment Name		Earl Armstrong Road (between Portico and Limebank)				Jessie Chenevert Walk (between Portico and Town Square)				Portico Way (between Jessie Chenevert and south of Portico)			
OP Transect / Policy Area		Within 600m of a rapid transit station				Within 600m of a rapid transit station				Within 600m of a rapid transit station			
Segment Component		Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)		Critical	
Side of Street		W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S
Pedestrian	PLOS Inputs												
	Posted Speed (km/h)	80 km/h		80 km/h		40 km/h		40 km/h		40 km/h		40 km/h	
	Two-Way ADT	18,100		18,100		2,150		2,150		2,485		2,485	
	Pedestrian Facility	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	Sidewalk	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Facility Width (m)	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m	2.00m
	Offset from Motor Vehicle Travel Lanes (m)	≥ 3.0m	≥ 3.0m	< 0.5m	< 0.5m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m
	Presence of Adjacent Parking?	No	No	-	-	No	No	No	No	No	No	No	No
	General Purpose Curb Lane ADT	-	-	> 3000	> 3000	-	-	-	-	-	-	-	-
	Max. Distance between Controlled Crossings (m)	291-400m	291-400m	291-400m	291-400m	231-260m	201-230m	201-230m	201-230m	201-230m	≤ 200m	≤ 200m	≤ 200m
Score	3.25	3.25	1.00	1.00	4.50	4.75	4.75	4.75	5.00	5.00	5.00	5.00	
PLOS		C	C	E	E	A	A	A	A	A	A	A	
Target PLOS		A				A				A			
Bicycle	BLOS Inputs												
	Cycling Route Classification	Cross-Town Bikeway				Elsewhere				Elsewhere			
	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	Cycle Track	Cycle Track	Cycle Track	Cycle Track	Cycle Track	Cycle Track	Cycle Track	Cycle Track
	Is the minimum level of separation provided, according to OTM Book 18 Pre-Selection, Nomograph - Rural Context (Figure 5.6/7 (for paved shoulders))	-	-	-	-	-	-	-	-	-	-	-	-
	Facility Operation	Unidirectional	Unidirectional	Unidirectional	Unidirectional	-	-	-	-	Unidirectional	Unidirectional	-	-
	Pedestrian/Cyclist Volume	-	-	-	-	-	-	-	-	-	-	-	-
	Facility Width	1.5-1.99m	1.5-1.99m	1.5-1.99m	1.5-1.99m	-	-	-	-	1.8m-2.09m	1.8m-2.09m	-	-
	Boulevard/Buffer Width (excluding curb)	-	-	-	-	-	-	-	-	≥ 1.0m	≥ 1.0m	-	-
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)	None	None	None	None	None	None	None	None	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)	Frequent, Short Duration	Frequent, Short Duration	Frequent, Short Duration	Frequent, Short Duration	-	-	-	-	-	-	-	-	
Score	2.15	2.15	2.15	2.15	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
BLOS		D	D	D	D	A	A	A	A	A	A	A	
Target BLOS		A				B				B			
Transit	TLOS Inputs												
	Transit Facility	Mixed Traffic				Mixed Traffic				Mixed Traffic			
	Facility Type	Mixed Traffic	Mixed Traffic			Mixed Traffic	Mixed Traffic			Mixed Traffic	Mixed Traffic		
	Expected Transit Running Time	Slightly Impeded	Slightly Impeded			Slightly Impeded	Slightly Impeded			Slightly Impeded	Slightly Impeded		
	Transit Travel Speed (if available)	Enter Speed (if available)	Enter Speed (if available)			Enter Speed (if available)	Enter Speed (if available)			Enter Speed (if available)	Enter Speed (if available)		
	TLOS	C	C			C	C			C	C		
Target TLOS		E (D for frequent transit routes)				E (D for frequent transit routes)				E (D for frequent transit routes)			
Public Realm	PRLOS Inputs												
	Context	Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village		
	Inner Boulevard Width	≤ 0.6m	≤ 0.6m			≤ 0.6m	≤ 0.6m			≤ 0.6m	≤ 0.6m		
	Middle Boulevard Width	2.0-2.99m	2.0-2.99m			≤ 0.5m	≤ 0.5m			≤ 0.5m	≤ 0.5m		
	Outer Boulevard (Frontage) Width	-	-			-	-			-	-		
	Transit Route on Segment?	Yes	Yes			Yes	Yes			Yes	Yes		
	Bus Stop Elements	Curbside platform with no shelter	Curbside landing zone with no shelter			Curbside platform with shelter (island style)	Curbside platform with shelter (island style)			Curbside platform with shelter (island style)	Curbside platform with shelter (island style)		
	Number of Midblock Traffic Lanes (both travel directions)	4				≤ 2				≤ 2			
Score	16.50	15.50			22.20	23.10			24.00	24.00			
PRLOS		C	C			B	B			B	B		
Target PRLOS		C				B				B			

Multi-Modal Level of Service - Segments Form
Project: Riverside South Library and Community Ce
Consultant: Parsons Inc.
Date: Jul 16, 2026
Scenario: Future 2035

Segment Name(h limit)			Town Square Place (between Jessie Chenevert and south limit)				
OP Transect / Policy Area			Within 600m of a rapid transit station				
Segment Component ical			Majority (>50%)		Critical		
Side of Street E or S			W or N	E or S	W or N	E or S	
Pedestrian	PLOS Inputs						
	Posted Speed (km/h)	m/h	40 km/h		40 km/h		
	Two-Way ADT	85	2,565		2,565		
	Pedestrian Facility	Sidewalk	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	Yes	
	Facility Width (m)	2.00m	2.00m	2.00m	2.00m	2.00m	
	Offset from Motor Vehicle Travel Lanes (m)	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	≥ 3.0m	
	Presence of Adjacent Parking?	No	Yes	Yes	Yes	Yes	
	General Purpose Curb Lane ADT	-	≤ 3000	≤ 3000	≤ 3000	≤ 3000	
	Max. Distance between Controlled Crossings (m)	≤ 200m	≤ 200m	≤ 200m	≤ 200m	≤ 200m	
Score		5.00	5.00	5.00	5.00	5.00	
PLOS		A		A		A	
Target PLOS		A					
Bicycle	BLOS Inputs						
	Cycling Route Classification		Elsewhere				
	Cycling Facility	Cycle Track	Cycle Track	Cycle Track	Cycle Track	Cycle Track	
	Is the minimum level of separation provided, according to OTM Book 18 Pre-Selection, Nomograph - Rural Context (Figure 5.6/7 (for paved shoulders)	-	-	-	-	-	
	Facility Operation	-	-	-	-	-	
	Pedestrian/Cyclist Volume	-	-	-	-	-	
	Facility Width	-	-	-	-	-	
	Boulevard/Buffer Width (excluding curb)	-	-	-	-	-	
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)	None	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)	-	-	-	-	-	
	Score	5.00	5.00	5.00	5.00	5.00	
BLOS		A		A		A	
Target BLOS		B					
Transit	TLOS Inputs						
	Transit Facility		Mixed Traffic				
	Facility Type		Mixed Traffic	Mixed Traffic			
	Expected Transit Running Time		Slightly Impeded	Slightly Impeded			
	Transit Travel Speed (if available)		Enter Speed (if available)	Enter Speed (if available)			
	TLOS		C	C			
Target TLOS		E (D for frequent transit routes)					
Public Realm	PRLOS Inputs						
	Context		Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			
	Inner Boulevard Width		≤ 0.6m	≤ 0.6m			
	Middle Boulevard Width		≤ 0.5m	≤ 0.5m			
	Outer Boulevard (Frontage) Width		-	-			
	Transit Route on Segment?		Yes	Yes			
	Bus Stop Elements		Curbside platform with shelter (island style)	Curbside platform with shelter (island style)			
	Number of Midblock Traffic Lanes (both travel directions)		≤ 2				
	Score		24.00	24.00			
	PRLOS		B		B		
		B					

Appendix G:

Transportation Demand Management (TDM) Checklists

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

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

TDM-supportive design & infrastructure measures: <i>Non-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	☒ Parking provided behind main frontage of building.
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☒ Main building entrance is located 5-metres from sidewalk and bus stop
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☒
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	☒ Direct pedestrian access to Limebank Station provided
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 (<i>see Official Plan policy 4.3.12</i>)	☒

TDM-supportive design & infrastructure measures: <i>Non-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 (<i>see Official Plan policy 4.3.10</i>)	☒
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 (<i>see Official Plan policy 4.3.10</i>)	☒ Sidewalks are proposed to have a width of 2.5 metres
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 (<i>see Official Plan policy 4.3.11</i>)	☒ Protected cycle-tracks are provided at the north, east, and west boundaries of the site
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☒ Sidewalk with landscaped buffer proposed around all frontages of the site
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☒
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☒
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☒
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☒

TDM-supportive design & infrastructure measures: <i>Non-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 (<i>see Official Plan policy 4.3.6</i>)	☒ 12 protected spaces provided under canopies
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 (<i>see Zoning By-law Section 111</i>)	☒ Section 111 Zoning By-law 2008 requires a minimum of 7 bicycle parking spaces. A total of 48 spaces are provided
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 (<i>see Zoning By-law Section 111</i>)	☒
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☐
BETTER	2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☐
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (<i>see Zoning By-law Section 111</i>)	☐
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☐
2.3 Shower & change facilities		
BASIC	2.3.1 Provide shower and change facilities for the use of active commuters	☒
BETTER	2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☒
2.4 Bicycle repair station		
BETTER	2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☒

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	☐ N/A
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	☐ N/A
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☒
4.2 Carpool parking		
BASIC	4.2.1 Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2 At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces (<i>see Zoning By-law Section 94</i>)	☐
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐

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

TDM Measures Checklist:

Non-Residential Developments (office, institutional, retail or industrial)

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

TDM measures: <i>Non-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	☒ Could be considered an internal role within community centre or library
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☒ Program coordinator could conduct occasional surveys
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	☒ local context maps can be posted on community message board
2.2 Bicycle skills training		
<i>Commuter travel</i>		
BETTER ★	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
2.3 Valet bike parking		
<i>Visitor travel</i>		
BETTER	2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

TDM measures: <i>Non-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	☒ relevant transit maps and schedules can be displayed in common areas
BASIC	3.1.2 Provide online links to OC Transpo and STO information	☒ links can be provided on OPL branch website
BETTER	3.1.3 Provide real-time arrival information display at entrances	☐
3.2 Transit fare incentives		
<i>Commuter travel</i>		
BETTER	3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	☐
BETTER ★	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	☐
<i>Visitor travel</i>		
BETTER	3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
3.3 Enhanced public transit service		
<i>Commuter travel</i>		
BETTER	3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
3.4 Private transit service		
<i>Commuter travel</i>		
BETTER	3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

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

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

Appendix H:

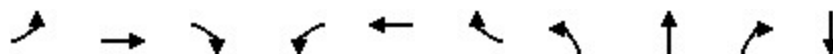
Synchro Analysis Reports

Existing Conditions

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Configurations	←	→	→	←	→	→	←	→	→	←
Traffic Volume (vph)	72	1027	3	9	559	26	11	4	10	30
Future Volume (vph)	72	1027	3	9	559	26	11	4	10	30
Lane Group Flow (vph)	80	1141	3	10	621	29	12	4	11	33
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases	2		2	6		6	8		8	
Detector Phase	5	2	2	1	6	6	8	8	8	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3
Total Split (s)	12.0	76.0	76.0	12.0	76.0	76.0	32.0	32.0	32.0	32.0
Total Split (%)	10.0%	63.3%	63.3%	10.0%	63.3%	63.3%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None
Act Effect Green (s)	36.7	41.4	41.4	32.0	29.3	29.3	13.3	13.3	13.3	13.3
Actuated g/C Ratio	0.72	0.81	0.81	0.63	0.57	0.57	0.26	0.26	0.26	0.26
v/c Ratio	0.13	0.42	0.00	0.03	0.34	0.03	0.04	0.01	0.02	0.07
Control Delay (s/veh)	5.4	7.8	0.0	6.1	10.8	0.1	21.0	21.5	0.1	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.4	7.8	0.0	6.1	10.8	0.1	21.0	21.5	0.1	20.3
LOS	A	A	A	A	B	A	C	C	A	C
Approach Delay (s/veh)		7.6			10.2			12.6		20.3
Approach LOS		A			B			B		C
Queue Length 50th (m)	0.0	0.0	0.0	0.1	10.2	0.0	0.4	0.2	0.0	1.2
Queue Length 95th (m)	11.1	106.0	0.0	2.6	50.0	0.0	6.0	3.1	0.0	11.9
Internal Link Dist (m)		277.7			524.4			158.7		235.7
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	
Base Capacity (vph)	612	3173	1078	336	2998	1327	714	715	915	1073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.36	0.00	0.03	0.21	0.02	0.02	0.01	0.01	0.03

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 51.1

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay (s/veh): 8.8

Intersection LOS: A

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong

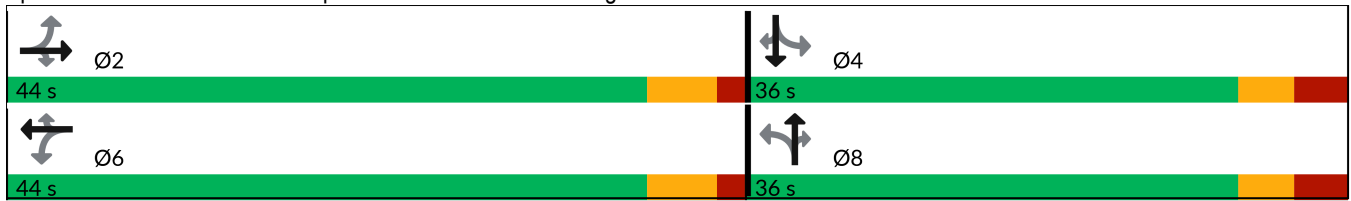
 Ø1 12 s	 Ø2 76 s	 Ø4 32 s
 Ø5 12 s	 Ø6 76 s	 Ø8 32 s

Lanes, Volumes, Timings
2: Town Square/Blanca & Earl Armstrong

07/16/2026

											
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 							
Traffic Volume (vph)	97	946	1	466	29	58	2	12	53	0	75
Future Volume (vph)	97	946	1	466	29	58	2	12	53	0	75
Lane Group Flow (vph)	108	1051	1	518	32	0	66	13	0	59	83
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		6			8			4	
Permitted Phases	2		2		6	8		8	4		4
Detector Phase	2	2	2	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	55.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	28.7	28.7	28.7	28.7	28.7		13.3	13.3		13.3	13.3
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59		0.27	0.27		0.27	0.27
v/c Ratio	0.22	0.53	0.00	0.28	0.04		0.19	0.03		0.17	0.17
Control Delay (s/veh)	10.5	10.7	0.0	8.5	2.4		17.1	1.3		16.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.5	10.7	0.0	8.5	2.4		17.1	1.3		16.8	5.5
LOS	B	B	A	A	A		B	A		B	A
Approach Delay (s/veh)		10.7		8.1			14.5			10.2	
Approach LOS		B		A			B			B	
Queue Length 50th (m)	4.3	27.7	0.0	11.2	0.0		4.0	0.0		3.6	0.0
Queue Length 95th (m)	19.8	80.1	0.0	34.7	2.9		14.8	0.9		13.6	8.3
Internal Link Dist (m)		524.4		245.1			68.4			202.0	
Turn Bay Length (m)	150.0		90.0		120.0			15.0			15.0
Base Capacity (vph)	676	2744	1234	2593	1235		835	1030		847	1045
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0
Storage Cap Reductcn	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.16	0.38	0.00	0.20	0.03		0.08	0.01		0.07	0.08
Intersection Summary											
Cycle Length: 80											
Actuated Cycle Length: 48.5											
Natural Cycle: 65											
Control Type: Semi Act-Uncoord											
Maximum v/c Ratio: 0.53											
Intersection Signal Delay (s/veh): 10.1						Intersection LOS: B					
Intersection Capacity Utilization 62.5%						ICU Level of Service B					
Analysis Period (min) 15											

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	497	401	117	1	232	55	70	171	13	47	93	177
Future Volume (vph)	497	401	117	1	232	55	70	171	13	47	93	177
Lane Group Flow (vph)	552	446	130	1	258	61	78	190	14	52	103	197
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	42.1	66.9	66.9	12.1	36.9	36.9	16.9	36.9	36.9	16.9	36.9	36.9
Total Split (%)	31.7%	50.4%	50.4%	9.1%	27.8%	27.8%	12.7%	27.8%	27.8%	12.7%	27.8%	27.8%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	19.6	40.3	40.3	5.5	14.5	14.5	8.0	17.1	17.1	7.4	13.6	13.6
Actuated g/C Ratio	0.24	0.49	0.49	0.07	0.18	0.18	0.10	0.21	0.21	0.09	0.17	0.17
v/c Ratio	0.70	0.27	0.15	0.00	0.43	0.13	0.26	0.28	0.03	0.19	0.20	0.45
Control Delay (s/veh)	35.8	14.7	2.8	51.0	35.1	0.6	43.9	32.5	0.1	44.1	34.7	8.7
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 (s/veh)	35.8	14.7	2.8	51.0	35.1	0.6	43.9	32.5	0.1	44.1	34.7	8.7
LOS	D	B	A	D	D	A	D	C	A	D	C	A
Approach Delay (s/veh)		23.6			28.6			34.1			21.5	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	36.7	18.3	0.0	0.0	17.8	0.0	5.3	13.1	0.0	3.6	7.0	0.0
Queue Length 95th (m)	85.4	50.2	8.6	1.1	41.9	0.0	18.1	31.7	0.0	13.2	19.1	17.0
Internal Link Dist (m)		245.1			469.9			237.0			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	1545	2631	1315	223	1339	805	409	1316	764	409	1254	755
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	0.36	0.17	0.10	0.00	0.19	0.08	0.19	0.14	0.02	0.13	0.08	0.26

Intersection Summary

Cycle Length: 132.8

Actuated Cycle Length: 82

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 25.5

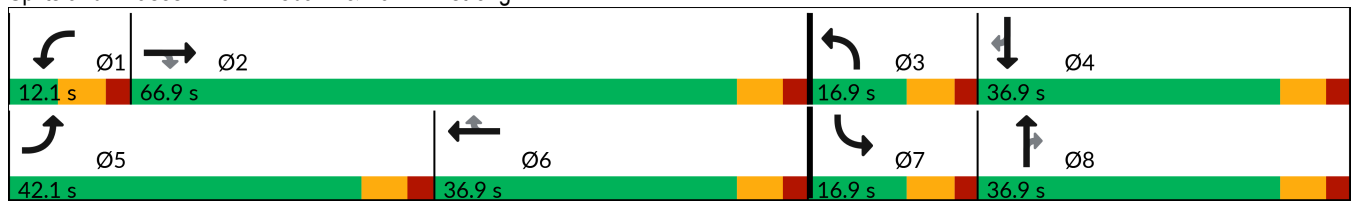
Intersection LOS: C

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Limebank & Earl Armstrong



Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	199	585	13	11	1324	45	9	10	18	2	127
Future Volume (vph)	199	585	13	11	1324	45	9	10	18	2	127
Lane Group Flow (vph)	221	650	14	12	1471	50	10	11	20	2	141
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6					4	
Permitted Phases	2		2	6		6	8	8	4		4
Detector Phase	5	2	2	1	6	6	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3	31.3
Total Split (s)	15.0	73.0	73.0	15.0	73.0	73.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	12.5%	60.8%	60.8%	12.5%	60.8%	60.8%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	94.1	90.0	90.0	79.4	73.9	73.9	13.0	13.0	13.0	13.0	13.0
Actuated g/C Ratio	0.78	0.75	0.75	0.66	0.62	0.62	0.11	0.11	0.11	0.11	0.11
v/c Ratio	0.66	0.25	0.01	0.02	0.69	0.05	0.07	0.02	0.14	0.01	0.49
Control Delay (s/veh)	25.8	6.3	0.0	3.9	14.2	0.3	45.4	0.1	47.6	43.0	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.8	6.3	0.0	3.9	14.2	0.3	45.4	0.1	47.6	43.0	13.1
LOS	C	A	A	A	B	A	D	A	D	D	B
Approach Delay (s/veh)		11.1			13.6					17.7	
Approach LOS		B			B					B	
Queue Length 50th (m)	16.4	14.4	0.0	0.3	118.5	0.2	2.2	0.0	4.5	0.4	0.0
Queue Length 95th (m)	#70.4	49.6	0.0	m1.3	55.5	m0.1	6.6	0.0	10.6	2.7	16.3
Internal Link Dist (m)		277.7			524.4					235.7	
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0	30.0	30.0		10.0
Base Capacity (vph)	333	2593	1100	579	2128	966	294	589	294	389	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.25	0.01	0.02	0.69	0.05	0.03	0.02	0.07	0.01	0.33

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 13.1

Intersection LOS: B

Intersection Capacity Utilization 74.7%

ICU Level of Service D

Analysis Period (min) 15

Existing PM 11:17 am 07/15/2026 Baseline

Synchro 12 Report

Page 1

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

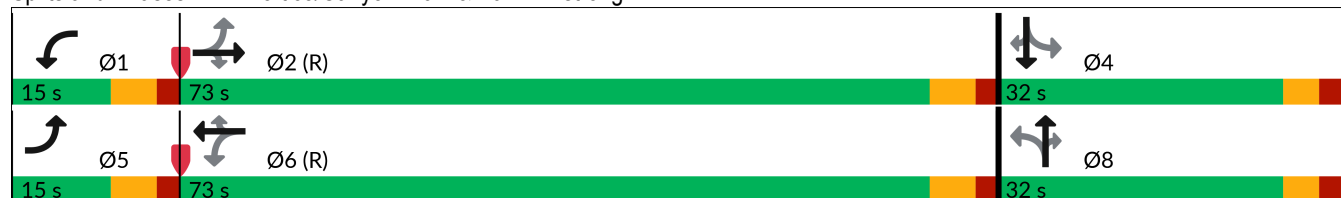
07/16/2026

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



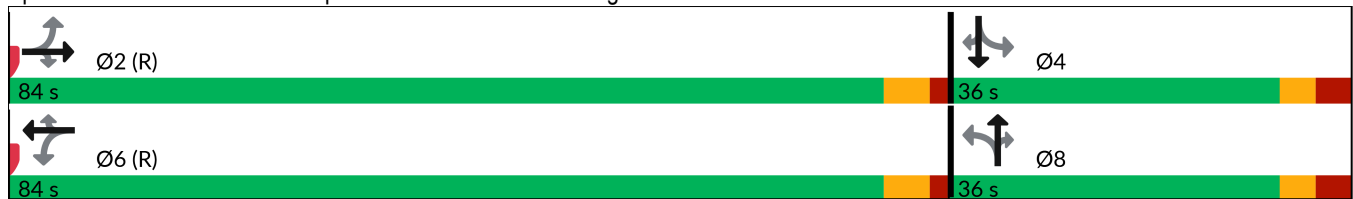
Lanes, Volumes, Timings
2: Town Square/Blanca & Earl Armstrong

07/16/2026

											
Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	66	526	5	1242	36	59	2	12	21	0	82
Future Volume (vph)	66	526	5	1242	36	59	2	12	21	0	82
Lane Group Flow (vph)	73	584	6	1380	40	0	68	13	0	23	91
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		6			8			4	
Permitted Phases	2		2		6	8		8	4		4
Detector Phase	2	2	2	6	6	8	8	8	4	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	84.0	84.0	84.0	84.0	84.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	92.8	92.8	92.8	92.8	92.8		14.9	14.9		14.9	14.9
Actuated g/C Ratio	0.77	0.77	0.77	0.77	0.77		0.12	0.12		0.12	0.12
v/c Ratio	0.31	0.23	0.01	0.53	0.03		0.42	0.06		0.16	0.37
Control Delay (s/veh)	10.2	4.1	0.0	7.1	1.9		54.4	6.4		45.7	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.2	4.1	0.0	7.1	1.9		54.4	6.4		45.7	21.1
LOS	B	A	A	A	A		D	A		D	C
Approach Delay (s/veh)		4.8		7.0			46.7			26.1	
Approach LOS		A		A			D			C	
Queue Length 50th (m)	3.5	13.6	0.0	46.5	0.0		15.5	0.0		5.1	6.2
Queue Length 95th (m)	11.0	24.1	m0.0	112.1	3.6		25.5	2.9		11.2	18.4
Internal Link Dist (m)		524.4		245.1			68.4			202.0	
Turn Bay Length (m)	150.0		90.0		120.0			15.0			15.0
Base Capacity (vph)	233	2523	1175	2596	1163		318	393		289	421
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.31	0.23	0.01	0.53	0.03		0.21	0.03		0.08	0.22
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.53											
Intersection Signal Delay (s/veh): 8.7						Intersection LOS: A					
Intersection Capacity Utilization 71.6%						ICU Level of Service C					
Analysis Period (min) 15											

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

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	190	165	8	541	62	111	98	7	40	185	632
Future Volume (vph)	204	190	165	8	541	62	111	98	7	40	185	632
Lane Group Flow (vph)	227	211	183	9	601	69	123	109	8	44	206	702
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	22.1	46.9	46.9	12.1	36.9	36.9	16.9	36.9	36.9	16.9	36.9	36.9
Total Split (%)	19.6%	41.6%	41.6%	10.7%	32.7%	32.7%	15.0%	32.7%	32.7%	15.0%	32.7%	32.7%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	12.1	40.6	40.6	5.0	23.5	23.5	8.9	37.8	37.8	6.9	30.2	30.2
Actuated g/C Ratio	0.12	0.40	0.40	0.05	0.23	0.23	0.09	0.37	0.37	0.07	0.29	0.29
v/c Ratio	0.59	0.16	0.24	0.05	0.77	0.12	0.47	0.09	0.01	0.20	0.20	1.04
Control Delay (s/veh)	50.3	21.0	4.3	51.3	44.4	0.4	52.6	26.0	0.0	49.9	29.6	70.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.3	21.0	4.3	51.3	44.4	0.4	52.6	26.0	0.0	49.9	29.6	70.5
LOS	D	C	A	D	D	A	D	C	A	D	C	E
Approach Delay (s/veh)		26.8			40.0			38.8			60.7	
Approach LOS		C			D			D			E	
Queue Length 50th (m)	22.6	13.5	0.0	0.9	59.8	0.0	12.3	8.1	0.0	4.4	16.5	~117.0
Queue Length 95th (m)	36.6	25.3	14.2	3.7	81.4	0.0	22.9	16.4	0.0	10.4	28.5	#204.5
Internal Link Dist (m)		245.1			469.9			237.0			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	483	1421	798	164	1007	666	296	1248	782	319	1007	675
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	0.47	0.15	0.23	0.05	0.60	0.10	0.42	0.09	0.01	0.14	0.20	1.04

Intersection Summary

Cycle Length: 112.8

Actuated Cycle Length: 102.7

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay (s/veh): 44.5

Intersection LOS: D

Intersection Capacity Utilization 78.6%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings

3: Limebank & Earl Armstrong

07/16/2026

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Limebank & Earl Armstrong

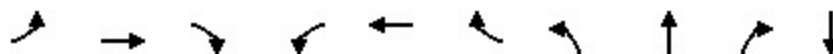


Future Background 2030 Conditions

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Configurations										
Traffic Volume (vph)	72	1128	25	37	593	26	41	7	39	32
Future Volume (vph)	72	1128	25	37	593	26	41	7	39	32
Lane Group Flow (vph)	72	1128	25	37	593	26	41	7	39	32
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases	2		2	6		6	8		8	
Detector Phase	5	2	2	1	6	6	8	8	8	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3
Total Split (s)	14.0	72.0	72.0	15.0	73.0	73.0	33.0	33.0	33.0	33.0
Total Split (%)	11.7%	60.0%	60.0%	12.5%	60.8%	60.8%	27.5%	27.5%	27.5%	27.5%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None
Act Effect Green (s)	38.0	40.2	40.2	36.0	37.0	37.0	13.7	13.7	13.7	13.7
Actuated g/C Ratio	0.67	0.71	0.71	0.63	0.65	0.65	0.24	0.24	0.24	0.24
v/c Ratio	0.12	0.48	0.03	0.12	0.29	0.03	0.16	0.02	0.09	0.07
Control Delay (s/veh)	5.9	11.2	0.1	6.8	11.3	0.0	26.9	25.9	1.2	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.9	11.2	0.1	6.8	11.3	0.0	26.9	25.9	1.2	25.3
LOS	A	B	A	A	B	A	C	C	A	C
Approach Delay (s/veh)		10.7			10.6			15.3		25.3
Approach LOS		B			B			B		C
Queue Length 50th (m)	2.6	30.6	0.0	1.3	24.1	0.0	3.1	0.5	0.0	2.4
Queue Length 95th (m)	10.1	108.5	0.0	6.2	49.4	0.0	14.9	4.5	1.3	11.9
Internal Link Dist (m)		277.7			524.4			133.8		235.7
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	
Base Capacity (vph)	652	3116	1060	378	2960	1311	588	681	876	1022
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.36	0.02	0.10	0.20	0.02	0.07	0.01	0.04	0.03

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 56.8

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.48

Intersection Signal Delay (s/veh): 11.1

Intersection LOS: B

Intersection Capacity Utilization 62.6%

ICU Level of Service B

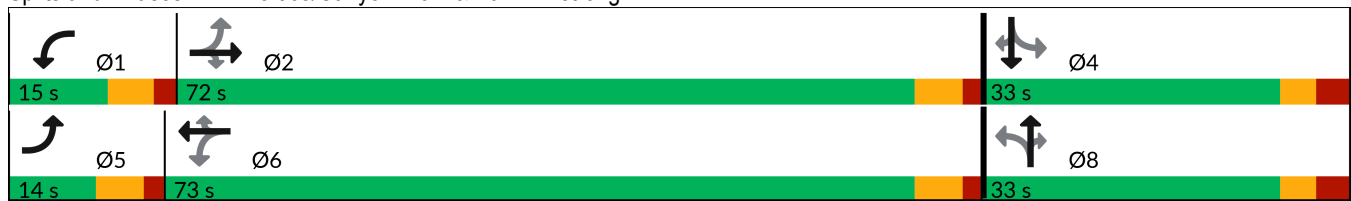
Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



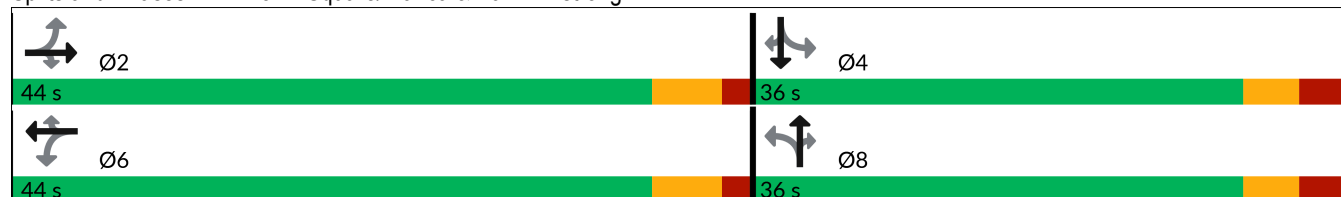
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	1059	7	9	516	29	58	9	29	53	3	81
Future Volume (vph)	103	1059	7	9	516	29	58	9	29	53	3	81
Lane Group Flow (vph)	103	1059	7	9	516	29	0	67	29	0	56	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	44.0	44.0	44.0	44.0	44.0	44.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	45.0%	45.0%	45.0%	45.0%	45.0%	45.0%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	28.6	28.6	28.6	28.6	28.6	28.6		13.3	13.3		13.3	13.3
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59	0.59		0.27	0.27		0.27	0.27
v/c Ratio	0.21	0.53	0.01	0.04	0.28	0.03		0.19	0.07		0.17	0.17
Control Delay (s/veh)	10.4	10.8	0.0	9.1	8.5	2.1		17.0	5.5		16.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.4	10.8	0.0	9.1	8.5	2.1		17.0	5.5		16.8	5.6
LOS	B	B	A	A	A	A		B	A		B	A
Approach Delay (s/veh)		10.7			8.2			13.5			10.2	
Approach LOS		B			A			B			B	
Queue Length 50th (m)	4.1	28.0	0.0	0.3	11.2	0.0		4.1	0.0		3.4	0.0
Queue Length 95th (m)	18.9	80.9	0.0	3.1	34.6	2.5		15.0	4.1		13.1	8.1
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	678	2754	1240	339	2603	1240		869	1032		821	1048
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.15	0.38	0.01	0.03	0.20	0.02		0.08	0.03		0.07	0.08
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 48.4												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.53												
Intersection Signal Delay (s/veh): 10.1						Intersection LOS: B						
Intersection Capacity Utilization 66.2%						ICU Level of Service C						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	585	435	130	1	251	58	78	181	14	50	102	211
Future Volume (vph)	585	435	130	1	251	58	78	181	14	50	102	211
Lane Group Flow (vph)	585	435	130	1	251	58	78	181	14	50	102	211
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	41.0	65.9	65.9	12.1	37.0	37.0	15.0	41.8	41.8	13.0	39.8	39.8
Total Split (%)	30.9%	49.6%	49.6%	9.1%	27.9%	27.9%	11.3%	31.5%	31.5%	9.8%	30.0%	30.0%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	20.2	40.8	40.8	5.4	14.4	14.4	7.7	17.5	17.5	6.5	13.4	13.4
Actuated g/C Ratio	0.25	0.50	0.50	0.07	0.18	0.18	0.09	0.21	0.21	0.08	0.16	0.16
v/c Ratio	0.72	0.26	0.14	0.00	0.43	0.12	0.27	0.26	0.03	0.21	0.20	0.49
Control Delay (s/veh)	35.6	14.2	2.7	49.0	35.0	0.5	44.7	31.6	0.1	46.2	34.8	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.6	14.2	2.7	49.0	35.0	0.5	44.7	31.6	0.1	46.2	34.8	9.5
LOS	D	B	A	D	D	A	D	C	A	D	C	A
Approach Delay (s/veh)		23.8			28.6			33.7			21.7	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	39.3	17.8	0.0	0.0	17.5	0.0	5.4	12.4	0.0	3.5	7.0	0.0
Queue Length 95th (m)	89.3	47.6	8.4	1.1	40.5	0.0	18.4	29.7	0.0	13.2	18.7	19.3
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	1493	2598	1300	222	1340	806	330	1524	853	249	1372	810
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	0.39	0.17	0.10	0.00	0.19	0.07	0.24	0.12	0.02	0.20	0.07	0.26

Intersection Summary

Cycle Length: 132.8

Actuated Cycle Length: 82

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 25.4

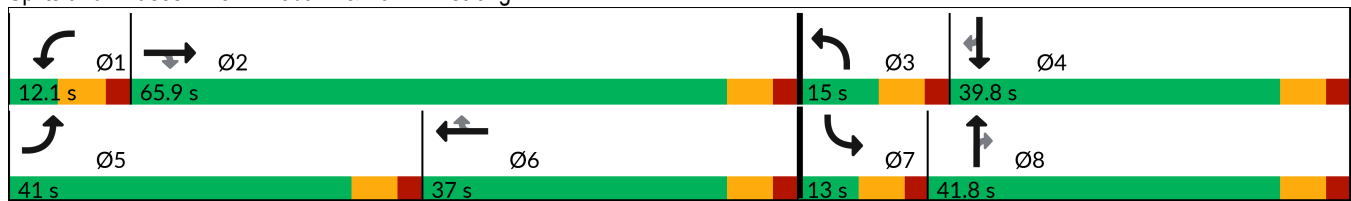
Intersection LOS: C

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	0	0	0	62	0	0	0	56	0	42
Future Vol, veh/h	25	0	0	0	0	62	0	0	0	56	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	62	0	0	0	56	0	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	133	133	21	112	154	0	42	0	0	0	0	0
Stage 1	133	133	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	112	154	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	839	758	1056	866	738	-	1567	-	-	-	-	-
Stage 1	870	786	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	893	770	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	758	1056	866	738	-	1567	-	-	-	-	-
Mov Cap-2 Maneuver	-	758	-	866	738	-	-	-	-	-	-	-
Stage 1	870	786	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	893	770	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	-	-	-
HCM Lane LOS	A	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	2	0	0	6	4	0	72	0	0	0	0
Future Vol, veh/h	20	2	0	0	6	4	0	72	0	0	0	0
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	2	0	0	6	4	0	72	0	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	116	113	-	114	113	112	21	0	0	92	0	0
Stage 1	21	21	-	92	92	-	-	-	-	-	-	-
Stage 2	95	92	-	22	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	861	777	0	863	777	941	1595	-	-	1503	-	-
Stage 1	998	878	0	915	819	-	-	-	-	-	-	-
Stage 2	912	819	0	996	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	816	746	-	826	746	903	1562	-	-	1472	-	-
Mov Cap-2 Maneuver	816	746	-	826	746	-	-	-	-	-	-	-
Stage 1	977	860	-	896	802	-	-	-	-	-	-	-
Stage 2	883	802	-	974	860	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.58		9.55		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1562	-	-	809	802	1472	-	-				
HCM Lane V/C Ratio	-	-	-	0.027	0.012	-	-	-				
HCM Ctrl Dly (s/v)	0	-	-	9.6	9.5	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-				

Intersection

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	6	6	0
Future Vol, veh/h	0	0	0	6	6	0
Conflicting Peds, #/hr	0	40	40	0	20	20
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	6	6	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	41
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1568
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1505
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.11
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	882	-	-	1505	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Ctrl Dly (s/v)	9.1	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	20	20	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	21	20	0
Stage 1	20	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	996	1058	-
Stage 1	1003	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	976	1036	-
Mov Cap-2 Maneuver	976	-	-
Stage 1	982	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1564
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	3	0	254	211	0
Future Vol, veh/h	0	3	0	254	211	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	254	211	0
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	106	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	929	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	929	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Ctrl Dly, s/v	8.89	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	929	-	-		
HCM Lane V/C Ratio	-	0.003	-	-		
HCM Ctrl Dly (s/v)	-	8.9	-	-		
HCM Lane LOS	-	A	-	-		
HCM 95th %tile Q(veh)	-	0	-	-		

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	633	46	48	1403	45	54	3	48	18	6	127
Future Volume (vph)	199	633	46	48	1403	45	54	3	48	18	6	127
Lane Group Flow (vph)	199	633	46	48	1403	45	54	3	48	18	6	127
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	22.0	77.5	77.5	11.2	66.7	66.7	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (%)	18.3%	64.6%	64.6%	9.3%	55.6%	55.6%	26.1%	26.1%	26.1%	26.1%	26.1%	26.1%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	93.7	84.8	84.8	81.9	76.3	76.3	13.4	13.4	13.4	13.4	13.4	13.4
Actuated g/C Ratio	0.78	0.71	0.71	0.68	0.64	0.64	0.11	0.11	0.11	0.11	0.11	0.11
v/c Ratio	0.62	0.26	0.04	0.09	0.64	0.04	0.35	0.01	0.16	0.12	0.03	0.44
Control Delay (s/veh)	17.3	7.7	0.5	3.8	12.4	0.1	53.8	42.7	1.2	46.5	43.5	10.8
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 (s/veh)	17.3	7.7	0.5	3.8	12.4	0.1	53.8	42.7	1.2	46.5	43.5	10.8
LOS	B	A	A	A	B	A	D	D	A	D	D	B
Approach Delay (s/veh)		9.5			11.7			29.4			16.4	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	7.8	24.5	0.0	1.6	99.6	0.0	12.3	0.7	0.0	4.0	1.3	0.0
Queue Length 95th (m)	36.1	47.0	1.0	m4.9	89.0	m0.0	22.0	3.2	0.0	9.8	4.8	13.6
Internal Link Dist (m)		277.7			524.4			133.8			235.7	
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	30.0		10.0
Base Capacity (vph)	371	2444	1042	556	2199	1016	285	379	425	285	379	419
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	0.54	0.26	0.04	0.09	0.64	0.04	0.19	0.01	0.11	0.06	0.02	0.30

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 11.9

Intersection LOS: B

Intersection Capacity Utilization 78.4%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



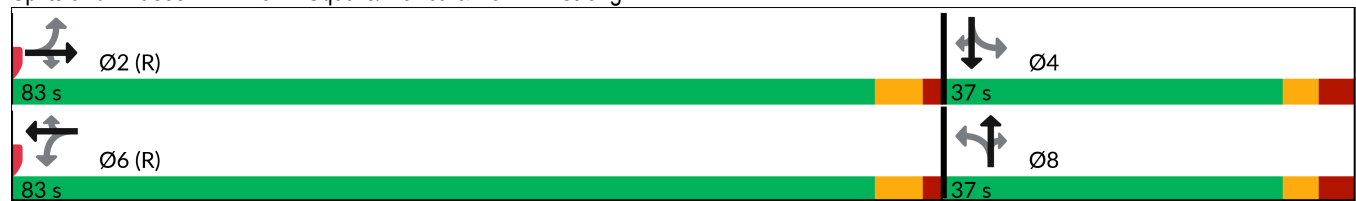
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	592	18	19	1346	36	59	8	31	21	8	90
Future Volume (vph)	70	592	18	19	1346	36	59	8	31	21	8	90
Lane Group Flow (vph)	70	592	18	19	1346	36	0	67	31	0	29	90
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	83.0	83.0	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	93.0	93.0	93.0	93.0	93.0	93.0		14.7	14.7		14.7	14.7
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78		0.12	0.12		0.12	0.12
v/c Ratio	0.29	0.23	0.02	0.03	0.52	0.03		0.41	0.14		0.18	0.37
Control Delay (s/veh)	8.7	4.0	0.6	5.1	6.9	1.9		54.0	14.6		46.5	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	8.7	4.0	0.6	5.1	6.9	1.9		54.0	14.6		46.5	19.9
LOS	A	A	A	A	A	A		D	B		D	B
Approach Delay (s/veh)		4.4			6.7			41.6			26.4	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	3.2	13.7	0.0	0.7	44.0	0.0		15.3	0.0		6.4	5.3
Queue Length 95th (m)	7.8	21.4	0.6	4.2	107.7	3.5		25.2	7.8		13.3	17.6
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	244	2526	1177	602	2600	1164		336	410		326	435
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.29	0.23	0.02	0.03	0.52	0.03		0.20	0.08		0.09	0.21
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 80												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.52												
Intersection Signal Delay (s/veh): 8.5						Intersection LOS: A						
Intersection Capacity Utilization 74.6%						ICU Level of Service D						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	210	178	8	583	66	124	104	7	42	203	702
Future Volume (vph)	256	210	178	8	583	66	124	104	7	42	203	702
Lane Group Flow (vph)	256	210	178	8	583	66	124	104	7	42	203	702
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	17.0	41.8	41.8	12.1	36.9	36.9	12.6	47.0	47.0	11.9	46.3	46.3
Total Split (%)	15.1%	37.1%	37.1%	10.7%	32.7%	32.7%	11.2%	41.7%	41.7%	10.5%	41.0%	41.0%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	9.9	38.2	38.2	5.0	23.4	23.4	5.7	45.0	45.0	5.0	39.2	39.2
Actuated g/C Ratio	0.09	0.36	0.36	0.05	0.22	0.22	0.05	0.42	0.42	0.05	0.37	0.37
v/c Ratio	0.83	0.17	0.25	0.05	0.77	0.13	0.77	0.07	0.01	0.27	0.16	0.95
Control Delay (s/veh)	71.5	24.3	4.9	51.4	46.3	0.5	80.0	21.4	0.0	55.4	23.7	47.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	71.5	24.3	4.9	51.4	46.3	0.5	80.0	21.4	0.0	55.4	23.7	47.5
LOS	E	C	A	D	D	A	E	C	A	E	C	D
Approach Delay (s/veh)		37.7			41.7			51.7			42.7	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	27.4	14.8	0.0	0.8	59.9	0.0	13.4	7.2	0.0	4.4	14.7	110.5
Queue Length 95th (m)	#52.2	27.3	15.1	3.4	78.6	0.0	#30.2	14.0	0.0	10.5	24.7	#200.9
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	307	1238	716	158	969	600	162	1435	823	153	1273	746
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	0.83	0.17	0.25	0.05	0.60	0.11	0.77	0.07	0.01	0.27	0.16	0.94

Intersection Summary

Cycle Length: 112.8

Actuated Cycle Length: 106.2

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 42.0

Intersection LOS: D

Intersection Capacity Utilization 84.4%

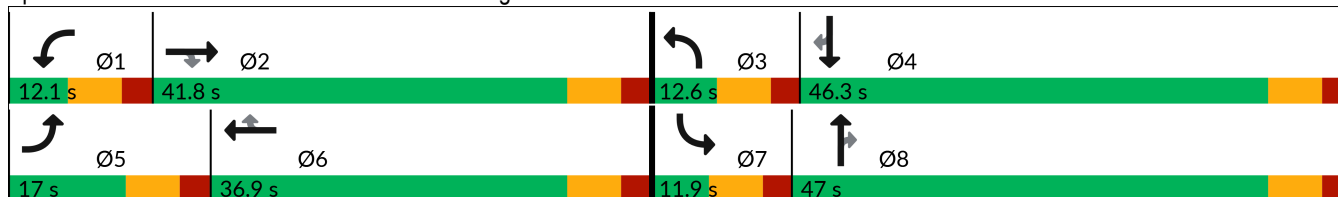
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	0	0	0	86	0	0	0	84	0	26
Future Vol, veh/h	19	0	0	0	0	86	0	0	0	84	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	86	0	0	0	84	0	26
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	181	181	13	168	194	0	26	0	0	0	0	0
Stage 1	181	181	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	168	194	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	781	713	1067	796	701	-	1588	-	-	-	-	-
Stage 1	821	750	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	834	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	713	1067	796	701	-	1588	-	-	-	-	-
Mov Cap-2 Maneuver	-	713	-	796	701	-	-	-	-	-	-	-
Stage 1	821	750	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	834	740	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1588	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Ctrl Dly (s/v)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	10	0	0	21	13	0	73	0	4	0	11
Future Vol, veh/h	12	10	0	0	21	13	0	73	0	4	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	10	0	0	21	13	0	73	0	4	0	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	97	87	-	86	92	73	11	0	0	73	0	0
Stage 1	14	14	-	73	73	-	-	-	-	-	-	-
Stage 2	84	73	-	13	19	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	885	804	0	900	798	989	1608	-	-	1527	-	-
Stage 1	1007	884	0	937	834	-	-	-	-	-	-	-
Stage 2	925	834	0	1007	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	848	801	-	886	796	989	1608	-	-	1527	-	-
Mov Cap-2 Maneuver	848	801	-	886	796	-	-	-	-	-	-	-
Stage 1	1004	882	-	937	834	-	-	-	-	-	-	-
Stage 2	889	834	-	993	877	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.48		9.36		0		1.96					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1608	-	-	826	860	400	-	-				
HCM Lane V/C Ratio	-	-	-	0.027	0.04	0.003	-	-				
HCM Ctrl Dly (s/v)	0	-	-	9.5	9.4	7.4	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection

Int Delay, s/veh 3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	9	0	0	21	21	0
Future Vol, veh/h	9	0	0	21	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	0	0	21	21	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	9
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	8.74
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1611	-
HCM Lane V/C Ratio	0.021	-	-	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1	0	0
Stage 1	0	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1022	-	-
Mov Cap-2 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

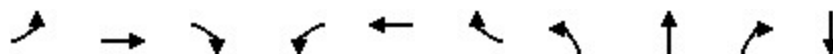
Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	3	0	216	358	3
Future Vol, veh/h	0	3	0	216	358	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	216	358	3
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	181	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	831	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	831	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Ctrl Dly, s/v	9.35	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	831	-	-		
HCM Lane V/C Ratio	-	0.004	-	-		
HCM Ctrl Dly (s/v)	-	9.3	-	-		
HCM Lane LOS	-	A	-	-		
HCM 95th %tile Q(veh)	-	0	-	-		

Future Background 2035 Conditions

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Configurations	←	→	→	←	→	→	←	→	→	←
Traffic Volume (vph)	72	1235	30	37	648	26	47	8	39	33
Future Volume (vph)	72	1235	30	37	648	26	47	8	39	33
Lane Group Flow (vph)	72	1235	30	37	648	26	47	8	39	33
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases	2		2	6		6	8		8	
Detector Phase	5	2	2	1	6	6	8	8	8	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3
Total Split (s)	12.0	73.0	73.0	14.0	75.0	75.0	33.0	33.0	33.0	33.0
Total Split (%)	10.0%	60.8%	60.8%	11.7%	62.5%	62.5%	27.5%	27.5%	27.5%	27.5%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None
Act Effect Green (s)	40.7	40.4	40.4	39.9	37.5	37.5	13.6	13.6	13.6	13.6
Actuated g/C Ratio	0.62	0.61	0.61	0.61	0.57	0.57	0.21	0.21	0.21	0.21
v/c Ratio	0.14	0.60	0.04	0.15	0.36	0.03	0.22	0.03	0.10	0.09
Control Delay (s/veh)	6.1	14.3	0.1	6.7	12.1	0.1	31.9	29.6	1.1	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.1	14.3	0.1	6.7	12.1	0.1	31.9	29.6	1.1	29.3
LOS	A	B	A	A	B	A	C	C	A	C
Approach Delay (s/veh)		13.6			11.4			18.9		29.3
Approach LOS		B			B			B		C
Queue Length 50th (m)	2.6	61.6	0.0	1.3	25.5	0.0	5.3	0.9	0.0	3.6
Queue Length 95th (m)	10.0	122.6	0.0	6.1	51.5	0.0	18.0	5.3	1.1	13.3
Internal Link Dist (m)		277.7			524.4			133.8		235.7
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	
Base Capacity (vph)	526	3050	1040	288	2911	1291	494	573	750	860
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.40	0.03	0.13	0.22	0.02	0.10	0.01	0.05	0.04

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 65.8

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.60

Intersection Signal Delay (s/veh): 13.3

Intersection LOS: B

Intersection Capacity Utilization 65.7%

ICU Level of Service C

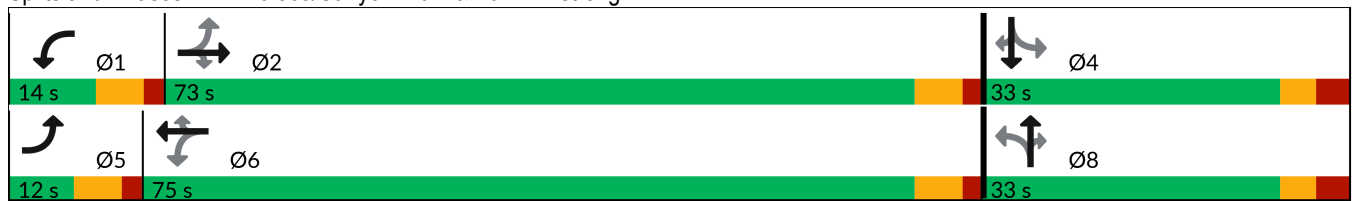
Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



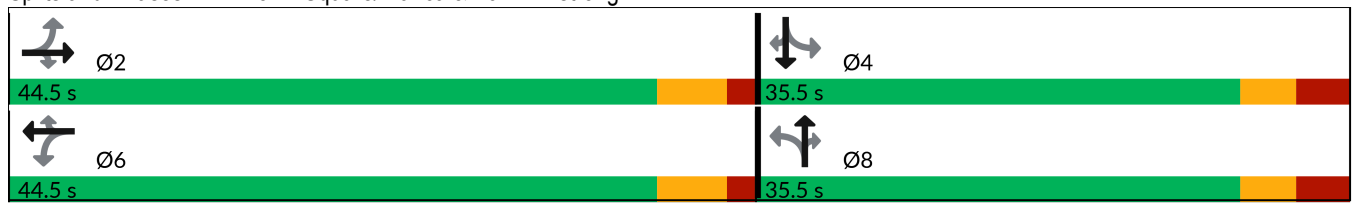
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	1153	12	12	563	29	58	10	32	53	5	81
Future Volume (vph)	103	1153	12	12	563	29	58	10	32	53	5	81
Lane Group Flow (vph)	103	1153	12	12	563	29	0	68	32	0	58	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	44.5	44.5	44.5	44.5	44.5	44.5	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	30.5	30.5	30.5	30.5	30.5	30.5		13.3	13.3		13.3	13.3
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61	0.61		0.26	0.26		0.26	0.26
v/c Ratio	0.21	0.57	0.01	0.05	0.29	0.03		0.20	0.07		0.18	0.17
Control Delay (s/veh)	10.2	10.9	0.0	9.3	8.3	2.0		18.1	6.2		17.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.2	10.9	0.0	9.3	8.3	2.0		18.1	6.2		17.9	5.8
LOS	B	B	A	A	A	A		B	A		B	A
Approach Delay (s/veh)		10.8			8.1			14.3			10.8	
Approach LOS		B			A			B			B	
Queue Length 50th (m)	4.1	31.8	0.0	0.4	12.4	0.0		4.5	0.0		3.8	0.0
Queue Length 95th (m)	19.2	91.4	0.0	3.8	38.1	2.4		15.3	4.6		13.6	8.1
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	631	2679	1207	287	2532	1207		824	978		784	995
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.16	0.43	0.01	0.04	0.22	0.02		0.08	0.03		0.07	0.08
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 50.2												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.57												
Intersection Signal Delay (s/veh): 10.2						Intersection LOS: B						
Intersection Capacity Utilization 69.0%						ICU Level of Service C						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	637	476	142	1	275	64	86	198	15	55	114	228
Future Volume (vph)	637	476	142	1	275	64	86	198	15	55	114	228
Lane Group Flow (vph)	637	476	142	1	275	64	86	198	15	55	114	228
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	42.0	66.9	66.9	12.1	37.0	37.0	15.0	40.8	40.8	13.0	38.8	38.8
Total Split (%)	31.6%	50.4%	50.4%	9.1%	27.9%	27.9%	11.3%	30.7%	30.7%	9.8%	29.2%	29.2%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	22.3	43.3	43.3	5.4	14.9	14.9	7.8	14.7	14.7	6.4	13.4	13.4
Actuated g/C Ratio	0.26	0.51	0.51	0.06	0.18	0.18	0.09	0.17	0.17	0.08	0.16	0.16
v/c Ratio	0.73	0.27	0.15	0.00	0.46	0.14	0.30	0.35	0.03	0.24	0.23	0.51
Control Delay (s/veh)	35.9	14.1	3.1	51.0	36.2	0.6	46.1	34.9	0.1	47.7	36.0	9.8
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 (s/veh)	35.9	14.1	3.1	51.0	36.2	0.6	46.1	34.9	0.1	47.7	36.0	9.8
LOS	D	B	A	D	D	A	D	C	A	D	D	A
Approach Delay (s/veh)		23.9			29.5			36.4			22.6	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	44.6	20.0	0.0	0.1	20.0	0.0	6.2	14.2	0.0	4.0	8.2	0.0
Queue Length 95th (m)	98.0	52.2	10.6	1.1	44.6	0.0	19.8	32.4	0.0	14.3	20.7	20.1
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	1479	2571	1288	214	1289	783	318	1425	811	239	1280	780
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	0.43	0.19	0.11	0.00	0.21	0.08	0.27	0.14	0.02	0.23	0.09	0.29

Intersection Summary

Cycle Length: 132.8

Actuated Cycle Length: 84.5

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 26.1

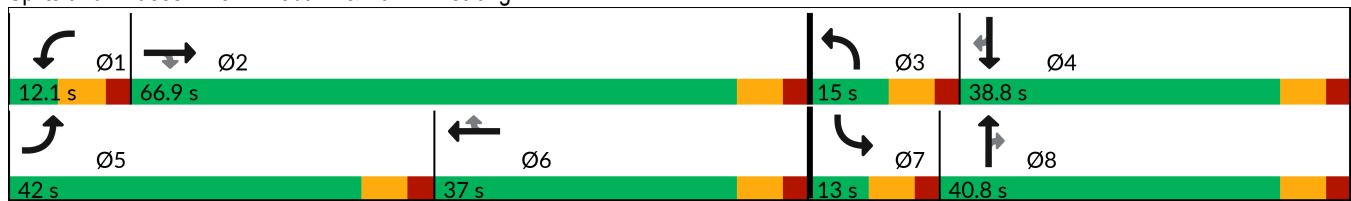
Intersection LOS: C

Intersection Capacity Utilization 64.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	0	0	0	69	0	0	0	57	0	42
Future Vol, veh/h	25	0	0	0	0	69	0	0	0	57	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	69	0	0	0	57	0	42
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	135	135	21	114	156	0	42	0	0	0	0	0
Stage 1	135	135	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	114	156	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	836	756	1056	863	736	-	1567	-	-	-	-	-
Stage 1	868	785	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	891	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	756	1056	863	736	-	1567	-	-	-	-	-
Mov Cap-2 Maneuver	-	756	-	863	736	-	-	-	-	-	-	-
Stage 1	868	785	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	891	769	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1567	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Ctrl Dly (s/v)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	2	0	0	13	8	0	72	0	0	0	0
Future Vol, veh/h	20	2	0	0	13	8	0	72	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	2	0	0	13	8	0	72	0	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	80	73	-	74	73	72	1	0	0	72	0	0
Stage 1	1	1	-	72	72	-	-	-	-	-	-	-
Stage 2	79	72	-	2	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	909	817	0	916	817	990	1622	-	-	1528	-	-
Stage 1	1022	895	0	938	835	-	-	-	-	-	-	-
Stage 2	930	835	0	1021	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	887	817	-	914	817	990	1622	-	-	1528	-	-
Mov Cap-2 Maneuver	887	817	-	914	817	-	-	-	-	-	-	-
Stage 1	1022	895	-	938	835	-	-	-	-	-	-	-
Stage 2	908	835	-	1019	895	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.19		9.21		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1622	-	-	880	876	1528	-	-				
HCM Lane V/C Ratio	-	-	-	0.025	0.024	-	-	-				
HCM Ctrl Dly (s/v)	0	-	-	9.2	9.2	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection

Int Delay, s/veh 0

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations

Traffic Vol, veh/h 0 0 0 13 0 0

Future Vol, veh/h 0 0 0 13 0 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 100 100 100 100 100 100

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 13 0 0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 1 0 14 1

Stage 1 - - - - 1 -

Stage 2 - - - - 13 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1622 - 1005 1084

Stage 1 - - - - 1022 -

Stage 2 - - - - 1010 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver - - 1622 - 1005 1084

Mov Cap-2 Maneuver - - - - 1005 -

Stage 1 - - - - 1022 -

Stage 2 - - - - 1010 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) - - - 1622 -

HCM Lane V/C Ratio - - - - -

HCM Ctrl Dly (s/v) 0 - - 0 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) - - - 0 -

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1	0	0
Stage 1	0	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1022	-	-
Mov Cap-2 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	3	0	254	211	0
Future Vol, veh/h	0	3	0	254	211	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	0	254	211	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 106	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 929	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 929	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.89	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 929	- -	- -
HCM Lane V/C Ratio	- 0.003	- -	- -
HCM Ctrl Dly (s/v)	- 8.9	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	702	56	48	1536	45	74	4	48	18	7	127
Future Volume (vph)	199	702	56	48	1536	45	74	4	48	18	7	127
Lane Group Flow (vph)	199	702	56	48	1536	45	74	4	48	18	7	127
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	15.0	73.0	73.0	15.0	73.0	73.0	32.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	12.5%	60.8%	60.8%	12.5%	60.8%	60.8%	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	92.6	83.5	83.5	79.9	73.8	73.8	14.2	14.2	14.2	14.2	14.2	14.2
Actuated g/C Ratio	0.77	0.70	0.70	0.67	0.62	0.62	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.66	0.29	0.05	0.09	0.72	0.05	0.46	0.02	0.19	0.11	0.03	0.44
Control Delay (s/veh)	27.8	8.6	1.1	5.5	16.0	0.9	57.0	42.3	4.0	45.5	42.9	12.2
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 (s/veh)	27.8	8.6	1.1	5.5	16.0	0.9	57.0	42.3	4.0	45.5	42.9	12.2
LOS	C	A	A	A	B	A	E	D	A	D	D	B
Approach Delay (s/veh)		12.1			15.3			36.3			17.6	
Approach LOS		B			B			D			B	
Queue Length 50th (m)	16.1	29.6	0.0	1.3	130.0	0.2	16.9	0.9	0.0	4.0	1.5	0.0
Queue Length 95th (m)	#64.5	56.1	2.5	m6.6	95.0	m0.0	28.6	3.8	3.2	9.8	5.4	15.7
Internal Link Dist (m)		277.7			524.4			133.8			235.7	
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	30.0		10.0
Base Capacity (vph)	303	2407	1027	556	2126	965	292	389	390	293	389	419
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	0.66	0.29	0.05	0.09	0.72	0.05	0.25	0.01	0.12	0.06	0.02	0.30

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 15.3

Intersection LOS: B

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

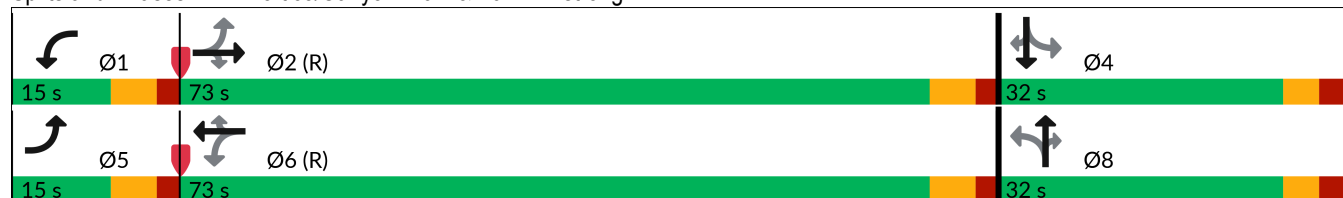
07/16/2026

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



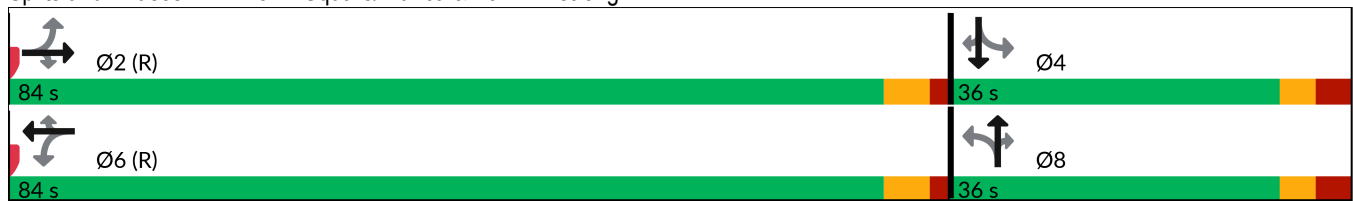
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	644	28	24	1470	36	59	12	41	21	12	90
Future Volume (vph)	70	644	28	24	1470	36	59	12	41	21	12	90
Lane Group Flow (vph)	70	644	28	24	1470	36	0	71	41	0	33	90
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	84.0	84.0	84.0	84.0	84.0	84.0	36.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	92.8	92.8	92.8	92.8	92.8	92.8		14.9	14.9		14.9	14.9
Actuated g/C Ratio	0.77	0.77	0.77	0.77	0.77	0.77		0.12	0.12		0.12	0.12
v/c Ratio	0.34	0.26	0.02	0.04	0.57	0.03		0.43	0.18		0.20	0.38
Control Delay (s/veh)	10.2	3.4	0.5	5.0	7.5	1.9		54.5	13.6		46.8	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.2	3.4	0.5	5.0	7.5	1.9		54.5	13.6		46.8	26.0
LOS	B	A	A	A	A	A		D	B		D	C
Approach Delay (s/veh)		3.9			7.4			39.5			31.6	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	3.5	15.5	0.0	1.0	52.2	0.0		16.2	0.0		7.3	8.4
Queue Length 95th (m)	11.5	13.1	0.3	5.0	124.8	3.5		26.3	8.9		14.7	20.5
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	207	2523	1175	569	2597	1163		329	405		327	413
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.34	0.26	0.02	0.04	0.57	0.03		0.22	0.10		0.10	0.22
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 90												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.57												
Intersection Signal Delay (s/veh): 9.0						Intersection LOS: A						
Intersection Capacity Utilization 78.2%						ICU Level of Service D						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	284	232	194	9	641	72	137	114	8	46	228	765
Future Volume (vph)	284	232	194	9	641	72	137	114	8	46	228	765
Lane Group Flow (vph)	284	232	194	9	641	72	137	114	8	46	228	765
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	20.0	44.9	44.9	12.1	37.0	37.0	14.1	60.8	60.8	12.2	58.9	58.9
Total Split (%)	15.4%	34.5%	34.5%	9.3%	28.5%	28.5%	10.8%	46.8%	46.8%	9.4%	45.3%	45.3%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	12.8	45.0	45.0	5.0	27.4	27.4	7.2	54.1	54.1	5.3	49.3	49.3
Actuated g/C Ratio	0.10	0.36	0.36	0.04	0.22	0.22	0.06	0.43	0.43	0.04	0.40	0.40
v/c Ratio	0.85	0.19	0.27	0.07	0.85	0.13	0.78	0.08	0.01	0.33	0.17	0.96
Control Delay (s/veh)	78.3	29.2	5.3	61.4	58.9	0.5	88.2	22.6	0.0	67.2	25.1	50.9
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 (s/veh)	78.3	29.2	5.3	61.4	58.9	0.5	88.2	22.6	0.0	67.2	25.1	50.9
LOS	E	C	A	E	E	A	F	C	A	E	C	D
Approach Delay (s/veh)		42.3			53.1			56.6			46.0	
Approach LOS		D			D			E			D	
Queue Length 50th (m)	37.5	20.4	0.0	1.1	82.3	0.0	18.2	9.2	0.0	6.0	19.5	149.0
Queue Length 95th (m)	#61.4	34.6	17.3	4.1	104.3	0.0	#35.7	15.2	0.0	12.6	28.5	#233.5
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	342	1236	725	135	831	568	175	1474	863	139	1436	832
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	0.83	0.19	0.27	0.07	0.77	0.13	0.78	0.08	0.01	0.33	0.16	0.92

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 124.7

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 47.9

Intersection LOS: D

Intersection Capacity Utilization 90.2%

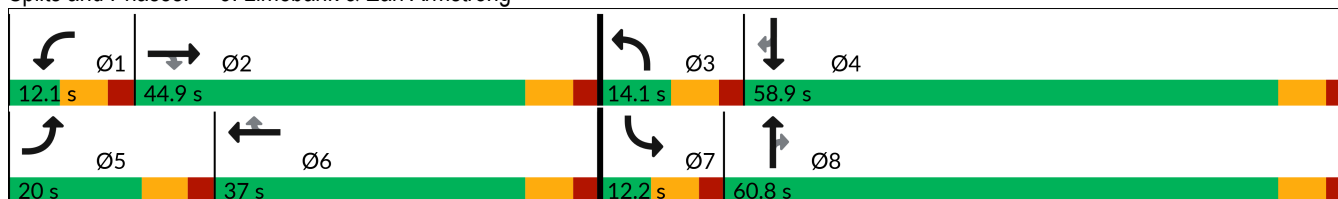
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	0	0	0	107	0	0	0	86	0	26
Future Vol, veh/h	19	0	0	0	0	107	0	0	0	86	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	107	0	0	0	86	0	26
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	185	185	13	172	198	0	26	0	0	0	0	0
Stage 1	185	185	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	172	198	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	776	709	1067	791	698	-	1588	-	-	-	-	-
Stage 1	817	747	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	830	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	709	1067	791	698	-	1588	-	-	-	-	-
Mov Cap-2 Maneuver	-	709	-	791	698	-	-	-	-	-	-	-
Stage 1	817	747	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	830	737	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1588	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Ctrl Dly (s/v)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	12	11	0	0	42	27	0	73	0	16	0	11
Future Vol, veh/h	12	11	0	0	42	27	0	73	0	16	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	11	0	0	42	27	0	73	0	16	0	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	132	111	-	-	116	73	11	0	0	73	0	0
Stage 1	38	38	-	-	73	-	-	-	-	-	-	-
Stage 2	94	73	-	-	43	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	841	780	0	0	774	989	1608	-	-	1527	-	-
Stage 1	978	864	0	0	834	-	-	-	-	-	-	-
Stage 2	913	834	0	0	859	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	765	771	-	-	766	989	1608	-	-	1527	-	-
Mov Cap-2 Maneuver	765	771	-	-	766	-	-	-	-	-	-	-
Stage 1	967	855	-	-	834	-	-	-	-	-	-	-
Stage 2	843	834	-	-	850	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	9.83		9.67		0		4.37	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	768 840	889	-	-
HCM Lane V/C Ratio	-	-	-	0.03 0.082	0.01	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.8 9.7	7.4	0	-
HCM Lane LOS	A	-	-	A A	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.3	0	-	-

Intersection

Int Delay, s/veh 0

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations

Traffic Vol, veh/h 10 0 0 42 0 0

Future Vol, veh/h 10 0 0 42 0 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 100 100 100 100 100 100

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 10 0 0 42 0 0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 10 0 52 10

Stage 1 - - - - 10 -

Stage 2 - - - - 42 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1610 - 957 1071

Stage 1 - - - - 1013 -

Stage 2 - - - - 980 -

Platoon blocked, % - - -

Mov Cap-1 Maneuver - - 1610 - 957 1071

Mov Cap-2 Maneuver - - - - 957 -

Stage 1 - - - - 1013 -

Stage 2 - - - - 980 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) - - - 1610 -

HCM Lane V/C Ratio - - - - -

HCM Ctrl Dly (s/v) 0 - - 0 -

HCM Lane LOS A - - A -

HCM 95th %tile Q(veh) - - - 0 -

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1	0	0
Stage 1	0	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1022	-	-
Mov Cap-2 Maneuver	1022	-	-
Stage 1	-	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	5	0	216	358	6
Future Vol, veh/h	0	5	0	216	358	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	0	216	358	6

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 182	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 829	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 829	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.37	0	0
HCM LOS	A		

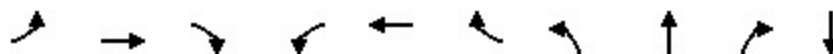
Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 829	- -	- -
HCM Lane V/C Ratio	- 0.006	- -	- -
HCM Ctrl Dly (s/v)	- 9.4	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Total Projected 2030 Conditions

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Configurations	↰	↱↱	↱	↰	↱↱	↱	↰	↱	↱	↱
Traffic Volume (vph)	72	1128	37	37	593	26	50	11	39	40
Future Volume (vph)	72	1128	37	37	593	26	50	11	39	40
Lane Group Flow (vph)	72	1128	37	37	593	26	50	11	39	40
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases	2		2	6		6	8		8	
Detector Phase	5	2	2	1	6	6	8	8	8	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3
Total Split (s)	14.0	74.0	74.0	13.0	73.0	73.0	33.0	33.0	33.0	33.0
Total Split (%)	11.7%	61.7%	61.7%	10.8%	60.8%	60.8%	27.5%	27.5%	27.5%	27.5%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None
Act Effect Green (s)	37.5	39.7	39.7	35.2	36.4	36.4	13.7	13.7	13.7	13.7
Actuated g/C Ratio	0.67	0.71	0.71	0.63	0.65	0.65	0.24	0.24	0.24	0.24
v/c Ratio	0.12	0.47	0.04	0.09	0.29	0.03	0.16	0.03	0.09	0.09
Control Delay (s/veh)	5.9	11.0	0.1	6.4	11.4	0.0	25.8	25.3	1.2	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.9	11.0	0.1	6.4	11.4	0.0	25.8	25.3	1.2	24.8
LOS	A	B	A	A	B	A	C	C	A	C
Approach Delay (s/veh)		10.4			10.7			16.1		24.8
Approach LOS		B			B			B		C
Queue Length 50th (m)	2.6	30.6	0.0	1.3	24.1	0.0	3.9	0.8	0.0	3.0
Queue Length 95th (m)	10.1	106.3	0.2	6.1	49.5	0.0	16.9	5.9	1.3	14.0
Internal Link Dist (m)		277.7			524.4			133.8		235.7
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	
Base Capacity (vph)	645	3149	1368	434	2969	1388	737	1021	869	1021
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.36	0.03	0.09	0.20	0.02	0.07	0.01	0.04	0.04

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 56.1

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay (s/veh): 11.0

Intersection LOS: B

Intersection Capacity Utilization 66.6%

ICU Level of Service C

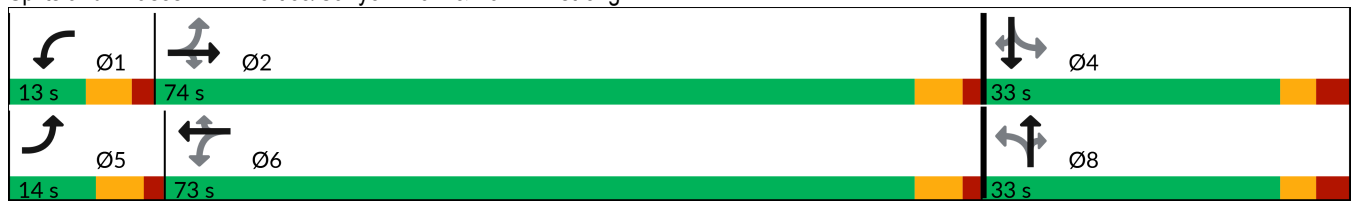
Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



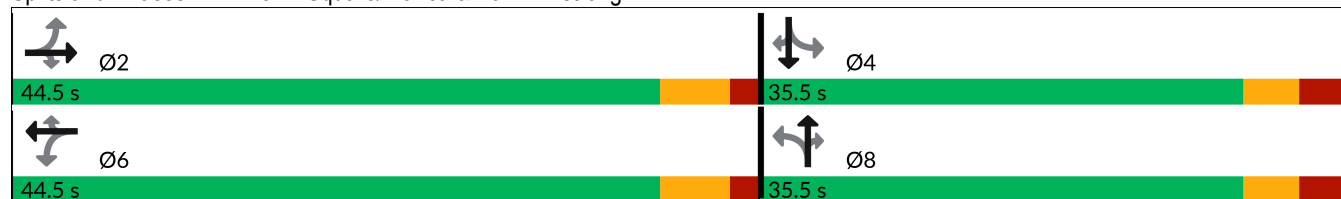
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	1059	7	64	516	29	58	22	61	53	5	81
Future Volume (vph)	103	1059	7	64	516	29	58	22	61	53	5	81
Lane Group Flow (vph)	103	1059	7	64	516	29	0	80	61	0	58	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	44.5	44.5	44.5	44.5	44.5	44.5	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	28.3	28.3	28.3	28.3	28.3	28.3		13.3	13.3		13.3	13.3
Actuated g/C Ratio	0.59	0.59	0.59	0.59	0.59	0.59		0.28	0.28		0.28	0.28
v/c Ratio	0.21	0.54	0.01	0.27	0.28	0.03		0.21	0.13		0.17	0.17
Control Delay (s/veh)	10.4	10.8	0.0	13.3	8.5	2.1		17.2	6.9		16.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.4	10.8	0.0	13.3	8.5	2.1		17.2	6.9		16.9	5.6
LOS	B	B	A	B	A	A		B	A		B	A
Approach Delay (s/veh)		10.7			8.7			12.7			10.3	
Approach LOS		B			A			B			B	
Queue Length 50th (m)	4.1	28.0	0.0	2.6	11.2	0.0		4.9	0.3		3.5	0.0
Queue Length 95th (m)	18.9	80.8	0.0	15.4	34.6	2.4		17.4	7.7		13.6	8.1
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	686	2802	1245	342	2648	1245		900	1024		808	1034
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.15	0.38	0.01	0.19	0.19	0.02		0.09	0.06		0.07	0.08
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 48.2												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.54												
Intersection Signal Delay (s/veh): 10.2						Intersection LOS: B						
Intersection Capacity Utilization 69.8%						ICU Level of Service C						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	611	441	130	1	259	58	82	181	14	50	102	255
Future Volume (vph)	611	441	130	1	259	58	82	181	14	50	102	255
Lane Group Flow (vph)	611	441	130	1	259	58	82	181	14	50	102	255
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	42.0	66.9	66.9	12.1	37.0	37.0	15.0	40.8	40.8	13.0	38.8	38.8
Total Split (%)	31.6%	50.4%	50.4%	9.1%	27.9%	27.9%	11.3%	30.7%	30.7%	9.8%	29.2%	29.2%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	21.5	42.2	42.2	5.4	14.6	14.6	7.8	17.6	17.6	6.4	13.4	13.4
Actuated g/C Ratio	0.26	0.51	0.51	0.06	0.18	0.18	0.09	0.21	0.21	0.08	0.16	0.16
v/c Ratio	0.71	0.25	0.14	0.00	0.44	0.12	0.29	0.26	0.03	0.21	0.20	0.55
Control Delay (s/veh)	35.3	14.0	2.7	51.0	35.6	0.6	45.4	32.1	0.1	46.9	35.3	9.8
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 (s/veh)	35.3	14.0	2.7	51.0	35.6	0.6	45.4	32.1	0.1	46.9	35.3	9.8
LOS	D	B	A	D	D	A	D	C	A	D	D	A
Approach Delay (s/veh)		23.8			29.3			34.4			20.7	
Approach LOS		C			C			C			C	
Queue Length 50th (m)	41.8	18.2	0.0	0.0	18.4	0.0	5.7	12.6	0.0	3.6	7.1	0.0
Queue Length 95th (m)	93.4	48.2	8.2	1.1	42.2	0.0	19.1	30.0	0.0	13.3	18.9	21.4
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	1503	2604	1279	217	1310	792	323	1447	821	243	1300	804
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	0.41	0.17	0.10	0.00	0.20	0.07	0.25	0.13	0.02	0.21	0.08	0.32

Intersection Summary

Cycle Length: 132.8

Actuated Cycle Length: 83.4

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 25.4

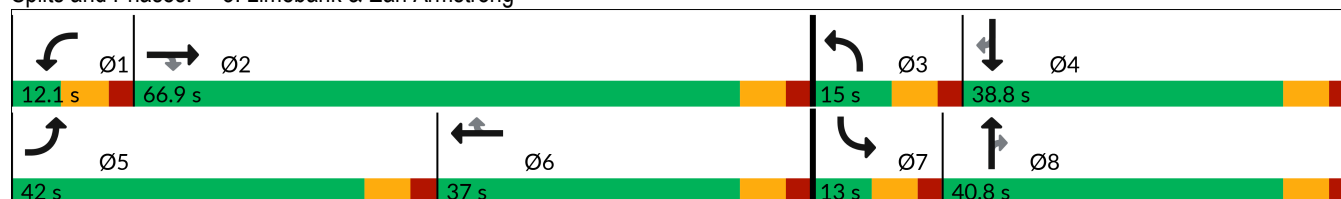
Intersection LOS: C

Intersection Capacity Utilization 63.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	0	0	0	0	75	0	0	0	76	0	42
Future Vol, veh/h	25	0	0	0	0	75	0	0	0	76	0	42
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	15	15	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	75	0	0	0	76	0	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	183	193	36	177	214	20	47	0	0	15	0	0
Stage 1	178	178	-	15	15	-	-	-	-	-	-	-
Stage 2	5	15	-	162	199	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	778	702	1037	785	684	1058	1560	-	-	1603	-	-
Stage 1	824	752	-	1005	883	-	-	-	-	-	-	-
Stage 2	1017	883	-	840	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	679	654	1021	727	637	1036	1553	-	-	1578	-	-
Mov Cap-2 Maneuver	679	654	-	727	637	-	-	-	-	-	-	-
Stage 1	779	711	-	990	869	-	-	-	-	-	-	-
Stage 2	939	869	-	790	696	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.5	8.74	0	4.76
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	679 1036	966	-	-
HCM Lane V/C Ratio	-	-	-	0.037 0.072	0.048	-	-
HCM Ctrl Dly (s/v)	0	-	-	10.5 8.7	7.4	0	-
HCM Lane LOS	A	-	-	B A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2	0.2	-	-

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	65	5	0	0	6	4	0	72	0	0	0	58
Future Vol, veh/h	65	5	0	0	6	4	0	72	0	0	0	58
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	5	0	0	6	4	0	72	0	0	0	58

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	114	111	-	85	140	82	63	0	0	77	0	0
Stage 1	34	34	-	77	77	-	-	-	-	-	-	-
Stage 2	80	77	-	8	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	863	779	0	902	751	978	1540	-	-	1522	-	-
Stage 1	982	867	0	932	831	-	-	-	-	-	-	-
Stage 2	929	831	0	1014	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	844	771	-	887	743	968	1532	-	-	1514	-	-
Mov Cap-2 Maneuver	844	771	-	887	743	-	-	-	-	-	-	-
Stage 1	977	862	-	927	827	-	-	-	-	-	-	-
Stage 2	913	827	-	1003	838	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.69	9.45	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1532	-	-	838 819	1514	-	-
HCM Lane V/C Ratio	-	-	-	0.084 0.012	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.7 9.4	0	-	-
HCM Lane LOS	A	-	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0	0	-	-

Intersection

Int Delay, s/veh 6.9

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 0 20 58 6 19 48

Future Vol, veh/h 0 20 58 6 19 48

Conflicting Peds, #/hr 0 10 10 0 5 5

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 100 100 100 100 100 100

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 20 58 6 19 48

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 30 0 147 25

Stage 1 - - - - 20 -

Stage 2 - - - - 127 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1583 - 845 1051

Stage 1 - - - - 1003 -

Stage 2 - - - - 899 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1567 - 801 1035

Mov Cap-2 Maneuver - - - - 801 -

Stage 1 - - - - 993 -

Stage 2 - - - - 861 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 6.69 9.05

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 956 - - 1562 -

HCM Lane V/C Ratio 0.07 - - 0.037 -

HCM Ctrl Dly (s/v) 9 - - 7.4 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0.2 - - 0.1 -

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	6	5	0
Stage 1	5	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1015	1078	1616
Stage 1	1018	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1010	1073	1608
Mov Cap-2 Maneuver	1010	-	-
Stage 1	1013	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1608	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	0	0	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	6	0	254	211	0
Future Vol, veh/h	0	6	0	254	211	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	254	211	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 106	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 929	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 929	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 929	- -	- -
HCM Lane V/C Ratio	- 0.006	- -	- -
HCM Ctrl Dly (s/v)	- 8.9	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	633	56	48	1403	45	65	8	48	18	13	127
Future Volume (vph)	199	633	56	48	1403	45	65	8	48	18	13	127
Lane Group Flow (vph)	199	633	56	48	1403	45	65	8	48	18	13	127
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	22.0	77.5	77.5	11.2	66.7	66.7	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (%)	18.3%	64.6%	64.6%	9.3%	55.6%	55.6%	26.1%	26.1%	26.1%	26.1%	26.1%	26.1%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	93.2	84.3	84.3	81.4	75.8	75.8	13.9	13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.78	0.70	0.70	0.68	0.63	0.63	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.62	0.26	0.06	0.09	0.64	0.05	0.43	0.04	0.17	0.12	0.06	0.45
Control Delay (s/veh)	17.6	7.9	1.0	4.1	12.7	0.1	56.4	43.1	1.3	46.0	44.2	11.0
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 (s/veh)	17.6	7.9	1.0	4.1	12.7	0.1	56.4	43.1	1.3	46.0	44.2	11.0
LOS	B	A	A	A	B	A	E	D	A	D	D	B
Approach Delay (s/veh)		9.6			12.0			33.6			17.7	
Approach LOS		A			B			C			B	
Queue Length 50th (m)	8.4	25.5	0.0	1.7	103.5	0.0	14.9	1.8	0.0	4.0	2.9	0.0
Queue Length 95th (m)	36.3	47.0	2.4	m5.2	66.0	m0.0	25.8	5.7	0.0	9.8	7.9	13.6
Internal Link Dist (m)		277.7			524.4			133.8			235.7	
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	30.0		10.0
Base Capacity (vph)	369	2428	984	540	2183	968	271	379	409	272	379	403
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	0.54	0.26	0.06	0.09	0.64	0.05	0.24	0.02	0.12	0.07	0.03	0.32

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 12.5

Intersection LOS: B

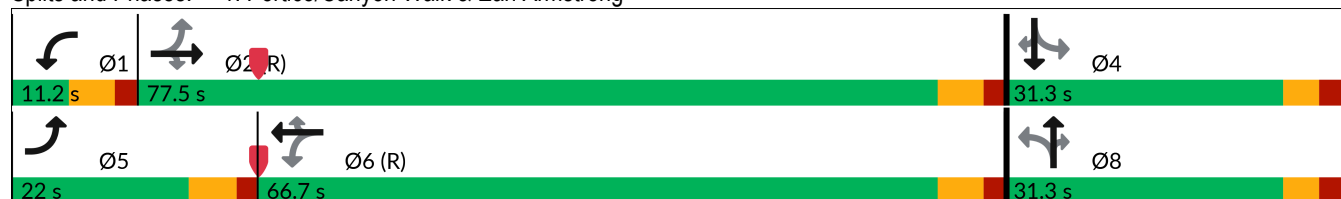
Intersection Capacity Utilization 85.1%

ICU Level of Service E

Analysis Period (min) 15

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

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



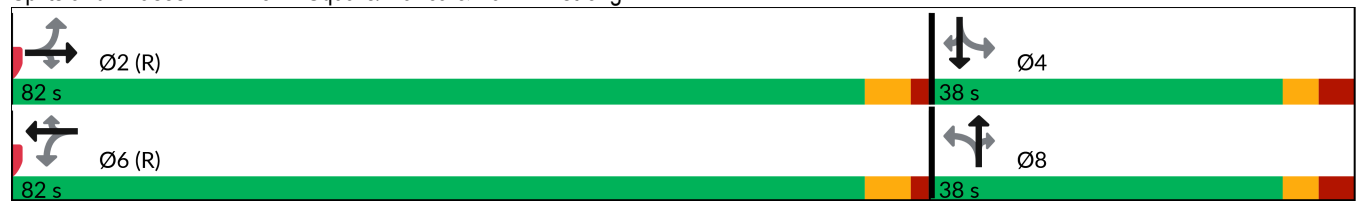
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	592	18	67	1346	36	59	24	71	21	10	90
Future Volume (vph)	70	592	18	67	1346	36	59	24	71	21	10	90
Lane Group Flow (vph)	70	592	18	67	1346	36	0	83	71	0	31	90
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	82.0	82.0	82.0	82.0	82.0	82.0	38.0	38.0	38.0	38.0	38.0	38.0
Total Split (%)	68.3%	68.3%	68.3%	68.3%	68.3%	68.3%	31.7%	31.7%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	92.4	92.4	92.4	92.4	92.4	92.4		15.3	15.3		15.3	15.3
Actuated g/C Ratio	0.77	0.77	0.77	0.77	0.77	0.77		0.13	0.13		0.13	0.13
v/c Ratio	0.29	0.24	0.02	0.12	0.52	0.03		0.48	0.28		0.19	0.38
Control Delay (s/veh)	8.9	4.0	0.5	5.4	7.1	2.0		55.7	12.0		46.1	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	8.9	4.0	0.5	5.4	7.1	2.0		55.7	12.0		46.1	23.0
LOS	A	A	A	A	A	A		E	B		D	C
Approach Delay (s/veh)		4.4			6.9			35.5			28.9	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	3.5	14.7	0.0	2.9	47.0	0.0		18.9	0.0		6.8	7.0
Queue Length 95th (m)	7.9	20.0	0.5	11.4	107.7	3.5		30.0	11.4		13.9	19.3
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	241	2512	1083	581	2585	1071		359	442		337	432
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.29	0.24	0.02	0.12	0.52	0.03		0.23	0.16		0.09	0.21
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 80												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.52												
Intersection Signal Delay (s/veh): 9.1						Intersection LOS: A						
Intersection Capacity Utilization 88.6%						ICU Level of Service E						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



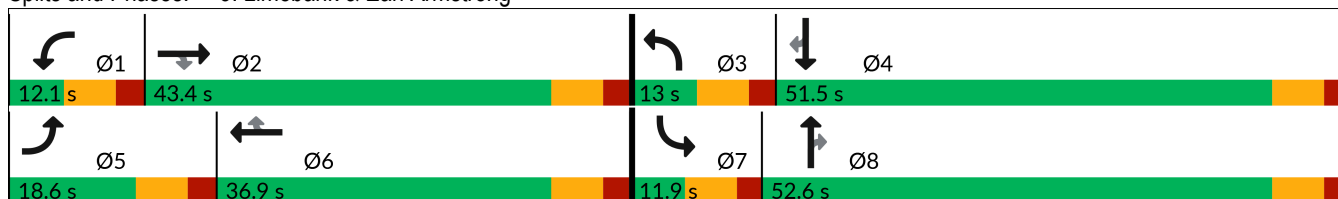
Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	218	178	8	590	66	127	104	7	42	203	740
Future Volume (vph)	288	218	178	8	590	66	127	104	7	42	203	740
Lane Group Flow (vph)	288	218	178	8	590	66	127	104	7	42	203	740
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	18.6	43.4	43.4	12.1	36.9	36.9	13.0	52.6	52.6	11.9	51.5	51.5
Total Split (%)	15.5%	36.2%	36.2%	10.1%	30.8%	30.8%	10.8%	43.8%	43.8%	9.9%	42.9%	42.9%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	11.5	41.1	41.1	5.0	24.8	24.8	6.1	50.7	50.7	5.0	44.7	44.7
Actuated g/C Ratio	0.10	0.36	0.36	0.04	0.22	0.22	0.05	0.44	0.44	0.04	0.39	0.39
v/c Ratio	0.88	0.18	0.25	0.06	0.80	0.13	0.79	0.07	0.01	0.30	0.15	0.99
Control Delay (s/veh)	78.1	26.5	5.1	55.6	51.5	0.6	87.1	21.4	0.0	60.4	24.0	57.8
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 (s/veh)	78.1	26.5	5.1	55.6	51.5	0.6	87.1	21.4	0.0	60.4	24.0	57.8
LOS	E	C	A	E	D	A	F	C	A	E	C	E
Approach Delay (s/veh)		42.7			46.5			55.8			50.9	
Approach LOS		D			D			E			D	
Queue Length 50th (m)	33.7	16.9	0.0	0.9	66.5	0.0	14.9	7.6	0.0	4.8	15.6	136.6
Queue Length 95th (m)	#60.4	30.0	15.6	3.6	86.3	0.0	#32.6	14.1	0.0	10.9	25.1	#230.6
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	329	1224	710	145	895	560	160	1496	828	141	1330	749
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	0.88	0.18	0.25	0.06	0.66	0.12	0.79	0.07	0.01	0.30	0.15	0.99
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 114.9												
Natural Cycle: 120												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.99												
Intersection Signal Delay (s/veh): 48.0						Intersection LOS: D						
Intersection Capacity Utilization 89.0%						ICU Level of Service E						
Analysis Period (min) 15												
# 95th percentile volume exceeds capacity, queue may be longer.												

Queue shown is maximum after two cycles.

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	0	0	0	103	0	0	0	101	0	26
Future Vol, veh/h	19	0	0	0	0	103	0	0	0	101	0	26
Conflicting Peds, #/hr	20	0	40	40	0	20	20	0	60	60	0	20
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	103	0	0	0	101	0	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	255	295	73	302	308	80	46	0	0	60	0	0
Stage 1	235	235	-	60	60	-	-	-	-	-	-	-
Stage 2	20	60	-	242	248	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	698	616	989	650	606	980	1562	-	-	1544	-	-
Stage 1	768	710	-	951	845	-	-	-	-	-	-	-
Stage 2	999	845	-	762	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	551	527	929	544	518	902	1530	-	-	1449	-	-
Mov Cap-2 Maneuver	551	527	-	544	518	-	-	-	-	-	-	-
Stage 1	699	647	-	893	793	-	-	-	-	-	-	-
Stage 2	867	793	-	679	638	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.76		9.51		0		6.1	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1530	-	-	551 902	1193	-	-
HCM Lane V/C Ratio	-	-	-	0.034 0.114	0.07	-	-
HCM Ctrl Dly (s/v)	0	-	-	11.8 9.5	7.7	0	-
HCM Lane LOS	A	-	-	B A	A A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.4	0.2	-	-

Intersection

Int Delay, s/veh 4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↰↱			↰↱			↰↱	
Traffic Vol, veh/h	67	14	0	0	21	13	0	73	0	4	0	61
Future Vol, veh/h	67	14	0	0	21	13	0	73	0	4	0	61
Conflicting Peds, #/hr	20	0	20	20	0	20	20	0	20	20	0	20
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	14	0	0	21	13	0	73	0	4	0	61

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	162	152	-	128	182	113	81	0	0	93	0	0
Stage 1	59	59	-	93	93	-	-	-	-	-	-	-
Stage 2	104	93	-	35	89	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	803	740	0	845	712	940	1517	-	-	1501	-	-
Stage 1	953	846	0	914	818	-	-	-	-	-	-	-
Stage 2	902	818	0	981	821	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	734	708	-	793	681	902	1486	-	-	1471	-	-
Mov Cap-2 Maneuver	734	708	-	793	681	-	-	-	-	-	-	-
Stage 1	931	827	-	895	801	-	-	-	-	-	-	-
Stage 2	848	801	-	942	802	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.55		10.02		0		0.46	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1486	-	-	730 752	92	-	-
HCM Lane V/C Ratio	-	-	-	0.111 0.045	0.003	-	-
HCM Ctrl Dly (s/v)	0	-	-	10.5 10	7.5	0	-
HCM Lane LOS	A	-	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4 0.1	0	-	-

Intersection

Int Delay, s/veh 6.8

Movement EBT EBR WBL WBT NBL NBRLane Configurations      

Traffic Vol, veh/h 9 17 50 21 38 59

Future Vol, veh/h 9 17 50 21 38 59

Conflicting Peds, #/hr 0 40 40 0 10 10

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 100 100 100 100 100 100

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 9 17 50 21 38 59

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 66 0 189 68

Stage 1 - - - - 58 -

Stage 2 - - - - 131 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1536 - 801 996

Stage 1 - - - - 965 -

Stage 2 - - - - 895 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1473 - 734 946

Mov Cap-2 Maneuver - - - - 734 -

Stage 1 - - - - 926 -

Stage 2 - - - - 856 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 5.3 9.78

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 850 - - 1268 -

HCM Lane V/C Ratio 0.114 - - 0.034 -

HCM Ctrl Dly (s/v) 9.8 - - 7.5 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0.4 - - 0.1 -

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	20	20	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	21	20	0
Stage 1	20	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	996	1058	-
Stage 1	1003	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	976	1036	-
Mov Cap-2 Maneuver	976	-	-
Stage 1	982	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1564
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	7	0	216	358	3
Future Vol, veh/h	0	7	0	216	358	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	216	358	3

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 181	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 831	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 831	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.37	0	0
HCM LOS	A		

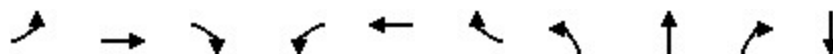
Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 831	- -	- -
HCM Lane V/C Ratio	- 0.008	- -	- -
HCM Ctrl Dly (s/v)	- 9.4	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Total Projected
2035 Conditions

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Configurations	←	↑↑	→	←	↑↑	→	←	↑	→	↑
Traffic Volume (vph)	72	1235	42	37	648	26	56	12	39	41
Future Volume (vph)	72	1235	42	37	648	26	56	12	39	41
Lane Group Flow (vph)	72	1235	42	37	648	26	56	12	39	41
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2		1	6			8		4
Permitted Phases	2		2	6		6	8		8	
Detector Phase	5	2	2	1	6	6	8	8	8	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3
Total Split (s)	12.0	75.0	75.0	12.0	75.0	75.0	33.0	33.0	33.0	33.0
Total Split (%)	10.0%	62.5%	62.5%	10.0%	62.5%	62.5%	27.5%	27.5%	27.5%	27.5%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None
Act Effect Green (s)	40.1	39.6	39.6	38.4	36.5	36.5	13.5	13.5	13.5	13.5
Actuated g/C Ratio	0.62	0.61	0.61	0.59	0.57	0.57	0.21	0.21	0.21	0.21
v/c Ratio	0.14	0.60	0.05	0.12	0.36	0.03	0.21	0.03	0.11	0.11
Control Delay (s/veh)	6.2	14.0	0.4	6.4	12.3	0.1	30.0	28.3	1.2	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.2	14.0	0.4	6.4	12.3	0.1	30.0	28.3	1.2	28.3
LOS	A	B	A	A	B	A	C	C	A	C
Approach Delay (s/veh)		13.2			11.5			19.3		28.3
Approach LOS		B			B			B		C
Queue Length 50th (m)	2.6	61.2	0.0	1.3	25.5	0.0	6.2	1.3	0.0	4.5
Queue Length 95th (m)	10.1	117.9	0.9	6.0	51.8	0.0	19.5	6.4	1.2	15.0
Internal Link Dist (m)		277.7			524.4			133.8		235.7
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	
Base Capacity (vph)	519	3114	1354	321	2942	1376	613	851	738	851
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.40	0.03	0.12	0.22	0.02	0.09	0.01	0.05	0.05

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 64.6

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.60

Intersection Signal Delay (s/veh): 13.2

Intersection LOS: B

Intersection Capacity Utilization 69.9%

ICU Level of Service C

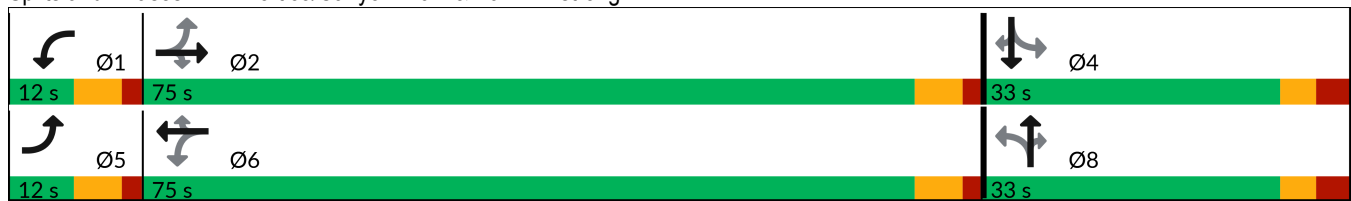
Analysis Period (min) 15

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



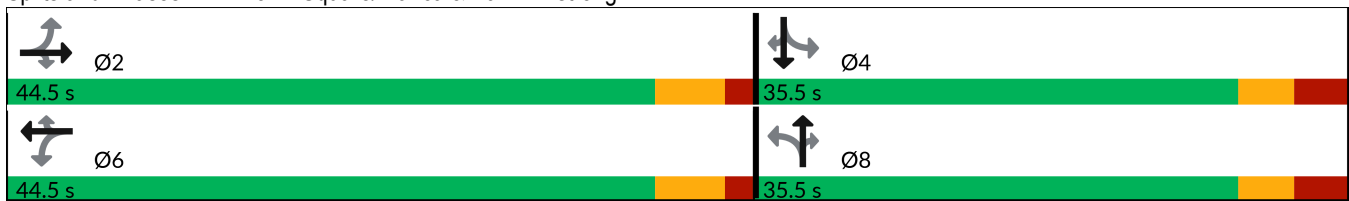
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	1153	12	67	563	29	58	23	64	53	7	81
Future Volume (vph)	103	1153	12	67	563	29	58	23	64	53	7	81
Lane Group Flow (vph)	103	1153	12	67	563	29	0	81	64	0	60	81
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	44.5	44.5	44.5	44.5	44.5	44.5	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%	44.4%	44.4%	44.4%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	30.3	30.3	30.3	30.3	30.3	30.3		13.3	13.3		13.3	13.3
Actuated g/C Ratio	0.61	0.61	0.61	0.61	0.61	0.61		0.27	0.27		0.27	0.27
v/c Ratio	0.22	0.57	0.01	0.31	0.29	0.03		0.22	0.15		0.18	0.17
Control Delay (s/veh)	10.2	11.0	0.0	14.8	8.4	2.1		18.3	9.6		18.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.2	11.0	0.0	14.8	8.4	2.1		18.3	9.6		18.0	5.8
LOS	B	B	A	B	A	A		B	A		B	A
Approach Delay (s/veh)		10.8			8.8			14.4			11.0	
Approach LOS		B			A			B			B	
Queue Length 50th (m)	4.1	31.8	0.0	2.8	12.4	0.0		5.4	1.4		4.0	0.0
Queue Length 95th (m)	19.2	91.4	0.0	17.4	38.1	2.4		17.5	9.7		13.9	8.1
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	630	2690	1197	287	2542	1197		863	979		783	995
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.16	0.43	0.01	0.23	0.22	0.02		0.09	0.07		0.08	0.08
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 50												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.57												
Intersection Signal Delay (s/veh): 10.5						Intersection LOS: B						
Intersection Capacity Utilization 72.6%						ICU Level of Service C						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	663	482	142	1	283	64	90	198	15	55	114	272
Future Volume (vph)	663	482	142	1	283	64	90	198	15	55	114	272
Lane Group Flow (vph)	663	482	142	1	283	64	90	198	15	55	114	272
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	43.1	68.0	68.0	12.1	37.0	37.0	15.0	39.7	39.7	13.0	37.7	37.7
Total Split (%)	32.5%	51.2%	51.2%	9.1%	27.9%	27.9%	11.3%	29.9%	29.9%	9.8%	28.4%	28.4%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	23.2	44.4	44.4	5.4	15.1	15.1	7.9	14.7	14.7	6.4	13.4	13.4
Actuated g/C Ratio	0.27	0.52	0.52	0.06	0.18	0.18	0.09	0.17	0.17	0.07	0.16	0.16
v/c Ratio	0.74	0.27	0.15	0.00	0.48	0.14	0.32	0.35	0.03	0.24	0.23	0.57
Control Delay (s/veh)	36.1	14.0	3.1	52.0	36.8	0.6	46.9	35.5	0.1	48.4	36.6	10.0
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 (s/veh)	36.1	14.0	3.1	52.0	36.8	0.6	46.9	35.5	0.1	48.4	36.6	10.0
LOS	D	B	A	D	D	A	D	D	A	D	D	B
Approach Delay (s/veh)		24.2			30.2			37.2			21.7	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	47.3	20.3	0.0	0.1	21.0	0.0	6.6	14.4	0.0	4.1	8.3	0.0
Queue Length 95th (m)	102.4	52.8	10.5	1.1	46.3	0.0	20.9	32.7	0.0	14.4	20.9	22.2
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	1504	2576	1267	211	1272	775	313	1359	783	236	1218	780
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	0.44	0.19	0.11	0.00	0.22	0.08	0.29	0.15	0.02	0.23	0.09	0.35

Intersection Summary

Cycle Length: 132.8

Actuated Cycle Length: 85.6

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 26.2

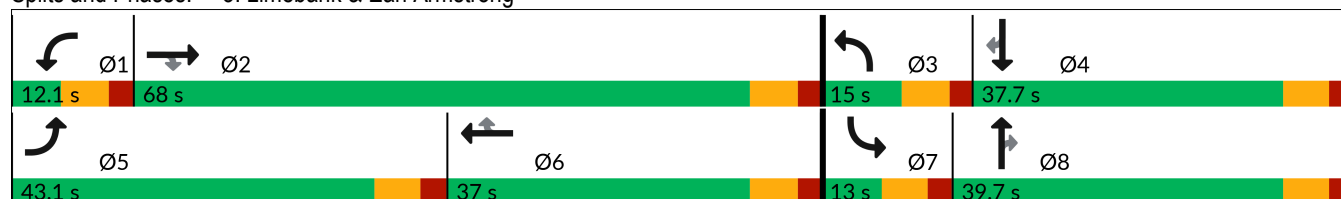
Intersection LOS: C

Intersection Capacity Utilization 65.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	25	0	0	0	0	82	0	0	0	77	0	42
Future Vol, veh/h	25	0	0	0	0	82	0	0	0	77	0	42
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	15	15	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	0	0	0	0	82	0	0	0	77	0	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	185	195	36	179	216	20	47	0	0	15	0	0
Stage 1	180	180	-	15	15	-	-	-	-	-	-	-
Stage 2	5	15	-	164	201	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	776	700	1037	783	682	1058	1560	-	-	1603	-	-
Stage 1	822	750	-	1005	883	-	-	-	-	-	-	-
Stage 2	1017	883	-	838	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	672	652	1021	725	635	1036	1553	-	-	1578	-	-
Mov Cap-2 Maneuver	672	652	-	725	635	-	-	-	-	-	-	-
Stage 1	777	709	-	990	869	-	-	-	-	-	-	-
Stage 2	932	869	-	788	695	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.57		8.77		0		4.79	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	672 1036	971	-	-
HCM Lane V/C Ratio	-	-	-	0.037 0.079	0.049	-	-
HCM Ctrl Dly (s/v)	0	-	-	10.6 8.8	7.4	0	-
HCM Lane LOS	A	-	-	B A	A A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.3	0.2	-	-

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	65	5	0	0	13	8	0	72	0	0	0	58
Future Vol, veh/h	65	5	0	0	13	8	0	72	0	0	0	58
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	5	0	0	13	8	0	72	0	0	0	58

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	118	111	-	85	140	82	63	0	0	77	0	0
Stage 1	34	34	-	77	77	-	-	-	-	-	-	-
Stage 2	84	77	-	8	63	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	859	779	0	902	751	978	1540	-	-	1522	-	-
Stage 1	982	867	0	932	831	-	-	-	-	-	-	-
Stage 2	925	831	0	1014	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	828	771	-	887	743	968	1532	-	-	1514	-	-
Mov Cap-2 Maneuver	828	771	-	887	743	-	-	-	-	-	-	-
Stage 1	977	862	-	927	827	-	-	-	-	-	-	-
Stage 2	898	827	-	1003	838	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.78	9.53	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1532	-	-	824 815	1514	-	-
HCM Lane V/C Ratio	-	-	-	0.085 0.026	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.8 9.5	0	-	-
HCM Lane LOS	A	-	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.1	0	-	-

Intersection

Int Delay, s/veh 6.4

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations

Traffic Vol, veh/h 0 20 58 13 13 48

Future Vol, veh/h 0 20 58 13 13 48

Conflicting Peds, #/hr 0 10 10 0 5 5

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 100 100 100 100 100 100

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 20 58 13 13 48

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 30 0 154 25

Stage 1 - - - - 20 -

Stage 2 - - - - 134 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1583 - 838 1051

Stage 1 - - - - 1003 -

Stage 2 - - - - 892 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1567 - 794 1035

Mov Cap-2 Maneuver - - - - 794 -

Stage 1 - - - - 993 -

Stage 2 - - - - 855 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 6.03 8.95

HCM LOS A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 972 - - 1470 -

HCM Lane V/C Ratio 0.063 - - 0.037 -

HCM Ctrl Dly (s/v) 9 - - 7.4 0

HCM Lane LOS A - - A A

HCM 95th %tile Q(veh) 0.2 - - 0.1 -

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	6	5	0
Stage 1	5	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	1015	1078	-
Stage 1	1018	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1010	1073	-
Mov Cap-2 Maneuver	1010	-	-
Stage 1	1013	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1608
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	6	0	254	211	0
Future Vol, veh/h	0	6	0	254	211	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	254	211	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 106	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 929	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 929	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 929	- -	- -
HCM Lane V/C Ratio	- 0.006	- -	- -
HCM Ctrl Dly (s/v)	- 8.9	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -

Lanes, Volumes, Timings

1: Portico/Canyon Walk & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	199	702	66	48	1536	45	85	9	48	18	14	127
Future Volume (vph)	199	702	66	48	1536	45	85	9	48	18	14	127
Lane Group Flow (vph)	199	702	66	48	1536	45	85	9	48	18	14	127
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.1	24.9	24.9	11.1	24.9	24.9	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (s)	21.0	77.5	77.5	11.2	67.7	67.7	31.3	31.3	31.3	31.3	31.3	31.3
Total Split (%)	17.5%	64.6%	64.6%	9.3%	56.4%	56.4%	26.1%	26.1%	26.1%	26.1%	26.1%	26.1%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.9	1.7	1.7	1.9	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.1	5.9	5.9	6.1	5.9	5.9	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
Act Effect Green (s)	92.8	83.5	83.5	79.7	74.1	74.1	14.7	14.7	14.7	14.7	14.7	14.7
Actuated g/C Ratio	0.77	0.70	0.70	0.66	0.62	0.62	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.68	0.29	0.06	0.09	0.72	0.05	0.51	0.04	0.16	0.11	0.06	0.42
Control Delay (s/veh)	27.7	8.4	1.3	5.7	16.6	0.1	58.7	42.7	1.1	44.9	43.5	10.1
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 (s/veh)	27.7	8.4	1.3	5.7	16.6	0.1	58.7	42.7	1.1	44.9	43.5	10.1
LOS	C	A	A	A	B	A	E	D	A	D	D	B
Approach Delay (s/veh)		11.9			15.8			38.2			17.0	
Approach LOS		B			B			D			B	
Queue Length 50th (m)	16.2	30.6	0.0	1.3	129.5	0.0	19.4	1.9	0.0	3.9	3.0	0.0
Queue Length 95th (m)	46.0	52.9	3.7	m7.0	108.5	m0.0	31.9	6.1	0.0	9.8	8.3	13.6
Internal Link Dist (m)		277.7			524.4			133.8			235.7	
Turn Bay Length (m)	40.0		60.0	35.0		60.0	30.0		30.0	30.0		10.0
Base Capacity (vph)	326	2405	1047	513	2134	990	282	379	425	284	379	419
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	0.61	0.29	0.06	0.09	0.72	0.05	0.30	0.02	0.11	0.06	0.04	0.30

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 15.7

Intersection LOS: B

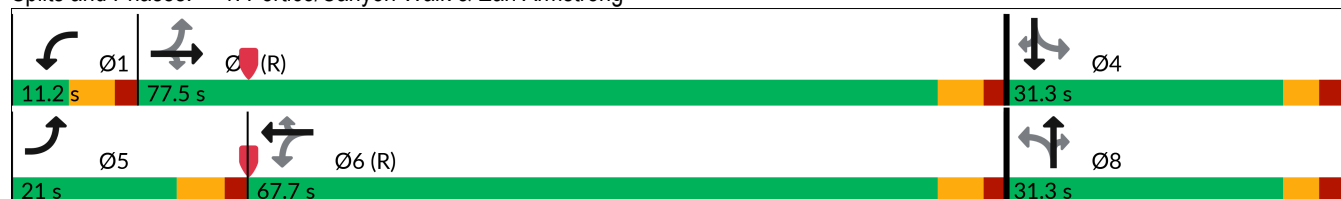
Intersection Capacity Utilization 83.9%

ICU Level of Service E

Analysis Period (min) 15

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

Splits and Phases: 1: Portico/Canyon Walk & Earl Armstrong



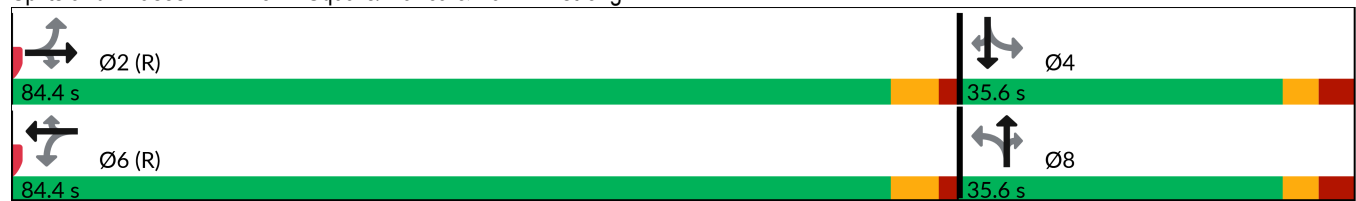
Lanes, Volumes, Timings

2: Town Square/Blanca & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	644	28	72	1470	36	59	28	81	21	14	90
Future Volume (vph)	70	644	28	72	1470	36	59	28	81	21	14	90
Lane Group Flow (vph)	70	644	28	72	1470	36	0	87	81	0	35	90
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	2	2	2	6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.8	21.8	21.8	21.8	21.8	21.8	35.5	35.5	35.5	35.5	35.5	35.5
Total Split (s)	84.4	84.4	84.4	84.4	84.4	84.4	35.6	35.6	35.6	35.6	35.6	35.6
Total Split (%)	70.3%	70.3%	70.3%	70.3%	70.3%	70.3%	29.7%	29.7%	29.7%	29.7%	29.7%	29.7%
Yellow Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	3.2	3.2	3.2	3.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.5	6.5		6.5	6.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None	None
Act Effct Green (s)	92.2	92.2	92.2	92.2	92.2	92.2		15.5	15.5		15.5	15.5
Actuated g/C Ratio	0.77	0.77	0.77	0.77	0.77	0.77		0.13	0.13		0.13	0.13
v/c Ratio	0.34	0.26	0.03	0.13	0.57	0.03		0.49	0.31		0.20	0.39
Control Delay (s/veh)	10.0	3.3	0.4	5.6	7.8	2.0		55.9	11.7		46.3	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	10.0	3.3	0.4	5.6	7.8	2.0		55.9	11.7		46.3	27.0
LOS	A	A	A	A	A	A		E	B		D	C
Approach Delay (s/veh)		3.8			7.6			34.6			32.4	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	3.7	16.6	0.0	3.2	55.6	0.0		19.8	0.0		7.7	9.0
Queue Length 95th (m)	11.1	9.4	0.2	12.2	124.8	3.5		31.1	12.2		15.1	21.2
Internal Link Dist (m)		524.4			245.1			160.8			202.0	
Turn Bay Length (m)	150.0		90.0	70.0		120.0			15.0			15.0
Base Capacity (vph)	204	2506	1081	548	2579	1068		335	421		322	396
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.34	0.26	0.03	0.13	0.57	0.03		0.26	0.19		0.11	0.23
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 90												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.57												
Intersection Signal Delay (s/veh): 9.4						Intersection LOS: A						
Intersection Capacity Utilization 92.2%						ICU Level of Service F						
Analysis Period (min) 15												

Splits and Phases: 2: Town Square/Blanca & Earl Armstrong



Lanes, Volumes, Timings
3: Limebank & Earl Armstrong

07/16/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	316	240	194	9	648	72	140	114	8	46	228	803
Future Volume (vph)	316	240	194	9	648	72	140	114	8	46	228	803
Lane Group Flow (vph)	316	240	194	9	648	72	140	114	8	46	228	803
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.1	36.9	36.9	12.1	36.9	36.9	11.9	36.9	36.9	11.9	36.9	36.9
Total Split (s)	20.5	45.4	45.4	12.1	37.0	37.0	13.8	60.3	60.3	12.2	58.7	58.7
Total Split (%)	15.8%	34.9%	34.9%	9.3%	28.5%	28.5%	10.6%	46.4%	46.4%	9.4%	45.2%	45.2%
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.5	2.3	2.3	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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)	7.1	6.9	6.9	7.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	13.4	46.1	46.1	5.0	28.0	28.0	6.9	56.0	56.0	5.3	51.8	51.8
Actuated g/C Ratio	0.10	0.36	0.36	0.04	0.22	0.22	0.05	0.44	0.44	0.04	0.41	0.41
v/c Ratio	0.92	0.19	0.27	0.07	0.87	0.14	0.86	0.08	0.01	0.34	0.16	0.99
Control Delay (s/veh)	88.8	29.4	5.3	61.4	61.1	0.5	101.7	22.8	0.0	67.7	25.1	57.9
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 (s/veh)	88.8	29.4	5.3	61.4	61.1	0.5	101.7	22.8	0.0	67.7	25.1	57.9
LOS	F	C	A	E	E	A	F	C	A	E	C	E
Approach Delay (s/veh)		48.2			55.1			64.2			51.4	
Approach LOS		D			E			E			D	
Queue Length 50th (m)	42.0	21.0	0.0	1.1	83.4	0.0	18.7	9.2	0.0	6.0	19.5	~168.0
Queue Length 95th (m)	#69.5	35.5	17.2	4.1	105.5	0.0	#37.8	15.3	0.0	12.6	28.6	#255.2
Internal Link Dist (m)		245.1			469.9			168.9			343.6	
Turn Bay Length (m)	130.0		60.0	160.0		180.0	120.0		60.0	130.0		130.0
Base Capacity (vph)	344	1234	714	131	805	556	163	1483	866	134	1387	811
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	0.92	0.19	0.27	0.07	0.80	0.13	0.86	0.08	0.01	0.34	0.16	0.99

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 127.9

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay (s/veh): 52.7

Intersection LOS: D

Intersection Capacity Utilization 93.0%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings

3: Limebank & Earl Armstrong

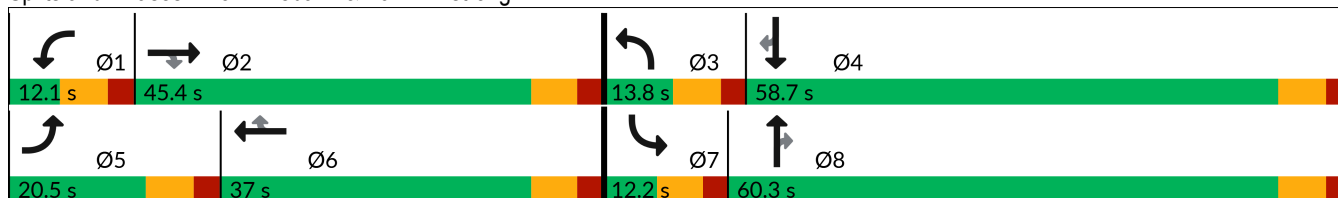
07/16/2026

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Limebank & Earl Armstrong



Intersection

Int Delay, s/veh 8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	0	0	0	124	0	0	0	103	0	26
Future Vol, veh/h	19	0	0	0	0	124	0	0	0	103	0	26
Conflicting Peds, #/hr	20	0	40	40	0	20	20	0	60	60	0	20
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	0	0	0	0	124	0	0	0	103	0	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	259	299	73	306	312	80	46	0	0	60	0	0
Stage 1	239	239	-	60	60	-	-	-	-	-	-	-
Stage 2	20	60	-	246	252	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	613	989	646	603	980	1562	-	-	1544	-	-
Stage 1	764	708	-	951	845	-	-	-	-	-	-	-
Stage 2	999	845	-	758	698	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	533	523	929	540	515	902	1530	-	-	1449	-	-
Mov Cap-2 Maneuver	533	523	-	540	515	-	-	-	-	-	-	-
Stage 1	695	643	-	893	793	-	-	-	-	-	-	-
Stage 2	844	793	-	674	635	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12	9.63	0	6.13
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1530	-	-	533 902	1198	-	-
HCM Lane V/C Ratio	-	-	-	0.036 0.138	0.071	-	-
HCM Ctrl Dly (s/v)	0	-	-	12 9.6	7.7	0	-
HCM Lane LOS	A	-	-	B A	A A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.5	0.2	-	-

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	67	15	0	0	42	27	0	73	0	16	0	61
Future Vol, veh/h	67	15	0	0	42	27	0	73	0	16	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	15	0	0	42	27	0	73	0	16	0	61

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	157	136	-	113	166	73	61	0	0	73	0	0
Stage 1	63	63	-	73	73	-	-	-	-	-	-	-
Stage 2	94	73	-	40	93	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	810	755	0	865	727	989	1542	-	-	1527	-	-
Stage 1	949	843	0	937	834	-	-	-	-	-	-	-
Stage 2	913	834	0	975	818	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	734	747	-	839	719	989	1542	-	-	1527	-	-
Mov Cap-2 Maneuver	734	747	-	839	719	-	-	-	-	-	-	-
Stage 1	938	834	-	937	834	-	-	-	-	-	-	-
Stage 2	843	834	-	947	809	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.5	9.89	0	1.53
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1542	-	-	736 805	312	-	-
HCM Lane V/C Ratio	-	-	-	0.111 0.086	0.01	-	-
HCM Ctrl Dly (s/v)	0	-	-	10.5 9.9	7.4	0	-
HCM Lane LOS	A	-	-	B A	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4 0.3	0	-	-

Intersection

Int Delay, s/veh 5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	17	50	42	17	59
Future Vol, veh/h	10	17	50	42	17	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	17	50	42	17	59

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	27
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1587
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1587
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.99	8.94
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	989	-	-	978	-
HCM Lane V/C Ratio	0.077	-	-	0.032	-
HCM Ctrl Dly (s/v)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	6	5	0
Stage 1	5	-	-
Stage 2	1	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	1015	1078	-
Stage 1	1018	-	-
Stage 2	1022	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1010	1073	-
Mov Cap-2 Maneuver	1010	-	-
Stage 1	1013	-	-
Stage 2	1022	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1608
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	9	0	216	358	6
Future Vol, veh/h	0	9	0	216	358	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	0	216	358	6

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 182	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.94	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.32	- -	- -
Pot Cap-1 Maneuver	0 829	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 829	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.39	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 829	- -	- -
HCM Lane V/C Ratio	- 0.011	- -	- -
HCM Ctrl Dly (s/v)	- 9.4	- -	- -
HCM Lane LOS	- A	- -	- -
HCM 95th %tile Q(veh)	- 0	- -	- -