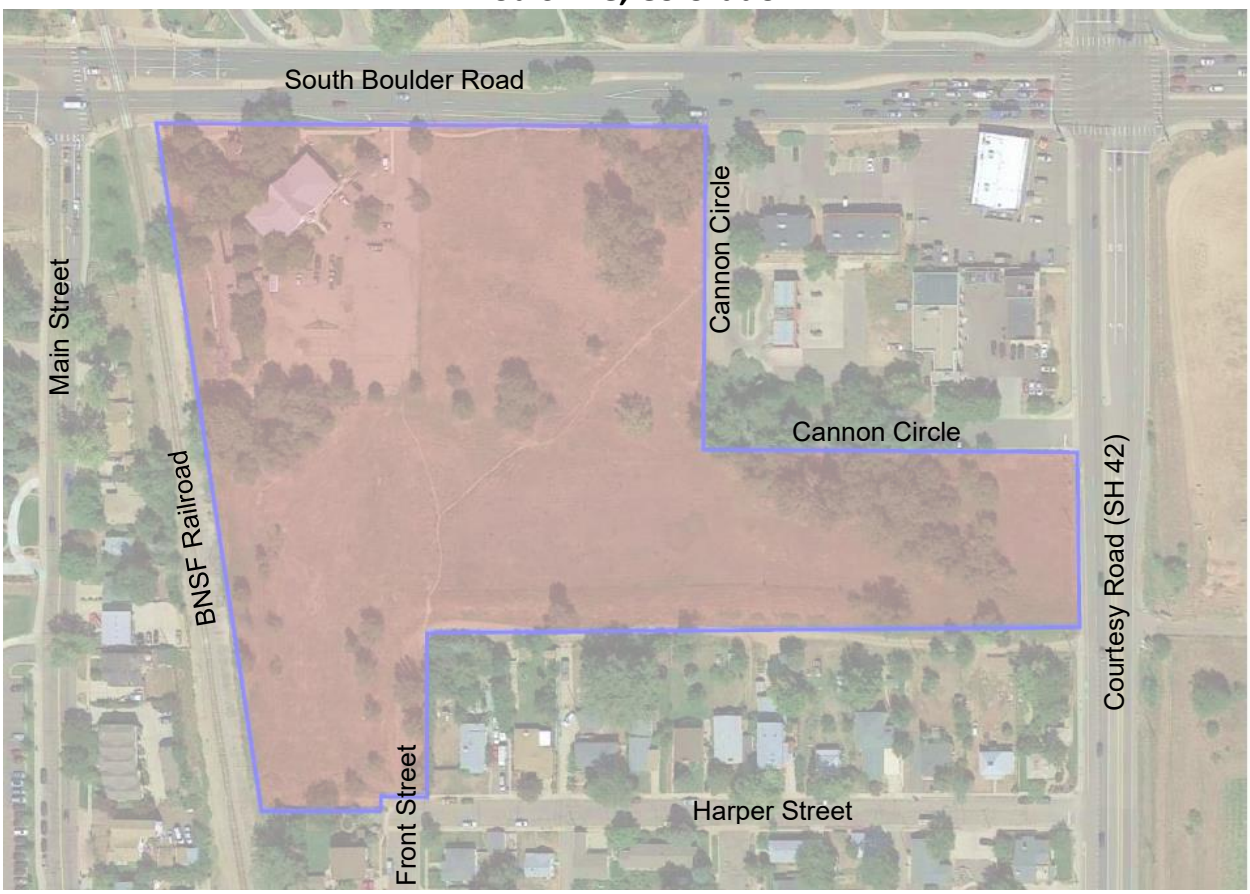
Transportation Impact Study
Coal Creek Village
Louisville, Colorado



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1.0 Executive Summary

Coal Creek Village is a proposed residential development located southwest of the intersection of South Boulder Road and Colorado State Highway 42. The development proposes the following land uses:

Land Use Category	Qty	Units
Multifamily Housing	188	dwelling units
Commercial/Retail	13,530	square feet
Existing Empanada Shop (1030 E. South Boulder Road.)	430	square feet

Trip Generation: The proposed development is expected to generate a total of 1,839 vehicle trips on the adjacent roadway network over the course of an average weekday (vpd). This includes 220 vehicle trips per hour (vph) during the morning peak hour, 244vph during the evening peak hour, and 144vph during the Saturday peak hour.

Internal Site Circulation: The proposed street configuration for Coal Creek Village provides good internal circulation as well as providing alternate routes to access adjacent arterial streets. Drivers wanting to go west on South Boulder Road or north on SH 42 may need to alter their travel routes, as left turns out of the site are prohibited onto these two roadways.

Sidewalks are proposed throughout the development. Adjacent access to transit is provided at South Boulder Road and Main Street.

Site Access: The new Coal Creek Village is proposing three vehicular access locations. These are existing accesses from the site to the adjacent arterial roadway network.. Two accesses will have direct connectivity to South Boulder Road, one access will have direct connectivity to State Highway 42.

1. Front Street and South Boulder Road
2. Cannon Circle and South Boulder Road
3. Cannon Circle and State Highway 42

A proposed fourth access will be restricted to emergency vehicles, bicycles, and pedestrian traffic. This access will connect from the south side of the site to Front Street. Refer to the site plan in **Figure 2**.

4. Front Street Emergency/Pedestrian Access

Intersection Analysis: Year 2026 and Year 2045 background and total traffic conditions were modeled and analyzed. Future access control, infrastructure improvements, and traffic from the Delo Boom development were factored into these projections.

Infrastructure recommendations based upon future traffic conditions, access restrictions, and operations are detailed in **Section 7.0**. A summary of the necessary improvements is included below.

Intersection #2 - South Boulder Road and Front Street Intersection: With the development of Coal Creek Village, the eastbound right turn lane needs to be extended to include 75' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. Alternatively, the construction of a bay taper would be acceptable and may help facilitate the addition of an adjacent transit stop. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane. No acceleration lane is required for this movement onto South Boulder Road.

Intersection #3 - South Boulder Road and Cannon Circle intersection: The City is considering the restriction of the left turns from the side streets at the South Boulder Road and Cannon Circle intersection as mentioned in the *South Boulder Road Corridor Evaluation*. Per the analysis included in this report, McDowell Engineering recommends that the left turn and through movements are restricted at Cannon Street at the time of Coal Creek Village buildout. This can be accomplished with the construction of a raised center median at the intersection.

With the development of Coal Creek Village, an eastbound right turn lane needs to be constructed to include 50' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. Alternatively, the construction of a bay taper would be acceptable. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access. The 95th percentile queue for this movement is less than the available storage length + taper length. Therefore, no changes are recommended to the westbound left deceleration lanes.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane.

The City is considering keeping the full movement access at this intersection and implementing the ¾ movement access when required by traffic operations in the future.

Intersection #4 – South Boulder Road and SH 42 intersection: The City's *Future 42* plan proposes improvements to this intersection in the future. This analysis supports the City's planned improvements.

Intersection #5 - SH 42 and Cannon Circle intersection: It is recommended that with the construction of Coal Creek Village, this intersection will be restricted to a ¾

movement by extending the existing center median in SH 42. The City desires to restrict access to right-in, right-out only (RIRO) movements in the future with the signalization of Intersection #6 SH 42 and Griffith Street. The median should be installed per the *Future 42* plan and align with the SH 42 Trail and Bike Lane designs.

The eastbound movement will be restricted to right turn only movements. Therefore, no deceleration lane is needed for this movement.

This intersection and the median should be installed per the implementation of the *Future 42* plan, including the trail and bike lane components.

A new State Highway Access Permit is required for this access onto SH 42.

Intersection #6 – SH 42 and Griffith Street intersection: The City's *Future 42* Plan proposes a future traffic signal installation at this intersection. The additional traffic from Coal Creek Village will not meet MUTCD traffic signal warrants at this intersection, future conditions with other growth likely will. This analysis supports the City's planned improvements.

Intersection #7 – Griffith Street and Cannon Street Intersection: This is a full-movement intersection with stop-control on the north and south legs. No improvements are required at this intersection.

Intersection #8 – Griffith Street and Front Street Intersection: This is a full-movement intersection with stop-control on the north and south legs. No improvements are required at this intersection.

Intersection of Griffith Street and the BNSF Railroad: This at-grade railroad crossing sees multiple trains crossings per day, with each impacting the crossing for three to five minutes at a time. During the crossing, traffic queues on Griffith Street back up in either direction. It is recommended that the City considers installing 'Do Not Block Intersection' signage and striping at the intersection of Griffith Street and Front Street.

Intersection #9 – Griffith Street and Main Street Intersection: No improvements are required at this intersection.

Intersection #10 – Front Street and Harper Street Intersection: This is a free-flowing intersection. No modifications to the current public street configuration are anticipated. The developer will construct a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is permitted.

Intersection #11 – SH 42 and Harper Street Intersection: The existing volume of eastbound right turns from Harper Street onto SH 42 exceeds the *Access Code*'s requirement to construct an acceleration lane for this movement. With the implementation of the *Future 42* Plan, this volume is anticipated to increase because

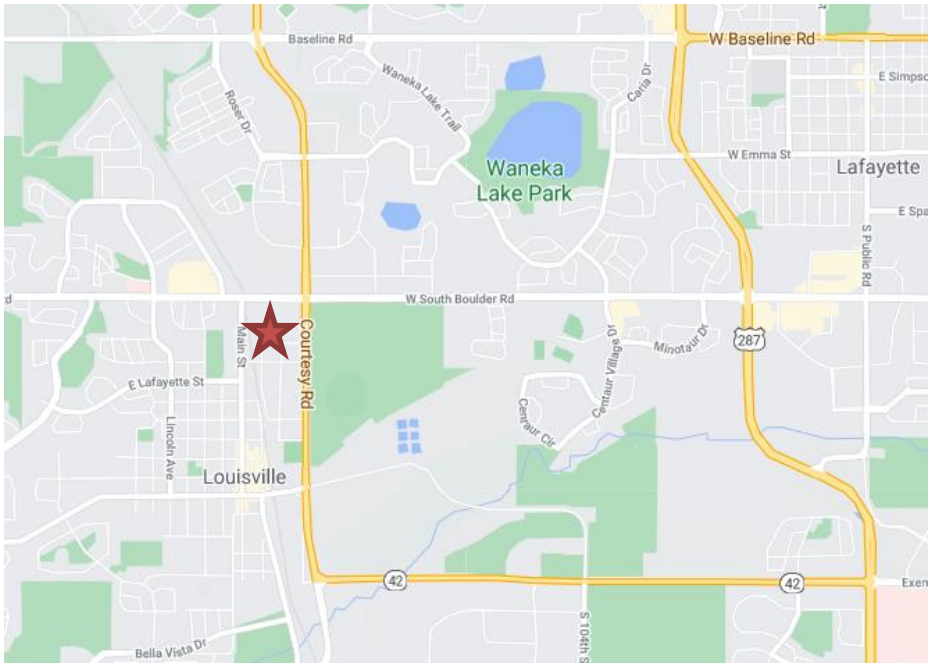
current traffic making the eastbound left movement will likely make a right turn instead. Coal Creek Village's site traffic is not anticipated to impact this movement. At a minimum, the construction of an acceleration lane should be incorporated into the implementation of Future 42 plans.

2.0 Project Description

Coal Creek Village is a proposed mixed-use residential and commercial development in Louisville, located southwest of the intersection of South Boulder Road and Courtesy Road (Colorado State Highway 42, SH 42), as shown in **Figure 1**. The site is bounded by the BNSF Railroad on the west. The current site plan for the development is shown in **Figure 2**. A full-size copy of the site plan is included in the **Appendix**. The existing commercial parcels north and east of Cannon Circle are not part of the development.

The existing building located at 1032 East South Boulder Road was demolished in 2022. The existing building at 1030 East South Boulder Road remains in operation as an Empanada shop.

Figure 1: Vicinity Map

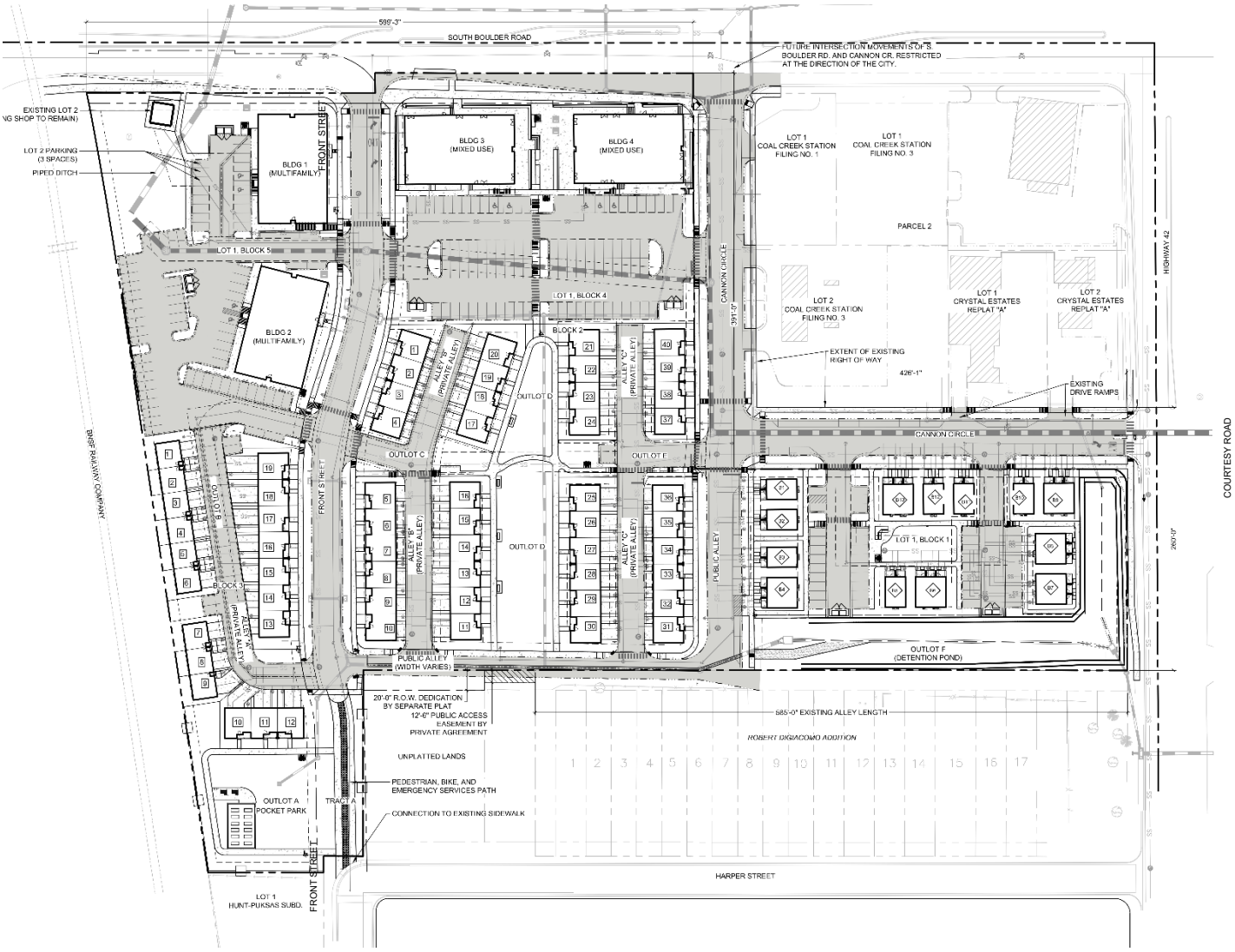


The development proposes the following land uses.

Table 1: Coal Creek Village Land Use

Land Use Category	Qty	Units
Multifamily Housing	188	dwelling units
Commercial/Retail	13,530	square feet
Existing Empanada Shop (1030 E. South Boulder Road.)	430	square feet

Figure 2: Current Site Plan



2.1 Recent Capital Improvements and Studies

<u>South Boulder Road Access Restrictions:</u> The City of Louisville restricted northbound and southbound left turns at the intersection of South Boulder Road and Front Street by extending the raised median in Summer 2022. The westbound left turn is still allowed.

<u>(Courtesy Road) *Future 42* Corridor Plan:</u> The City of Louisville completed *Future 42*[9], a SH 42 corridor study, in December 2022. The study recommended improvements to the intersection of South Boulder Road and SH 42 as well as the SH 42 corridor that may impact construction of walk/detention pond/retaining wall at southwest corner of Cannon Circle. The Year 2045 background traffic and Year 2045 total traffic conditions assume additional turn lanes at the intersection of South Boulder Road and SH 42 per the *Future 42* plan. Refer to an excerpt in the **Appendix**.

Future 42 includes a recommendation that the intersection of SH 42 and Griffith Street is signalized in the future. Therefore, this analysis assumes that this intersection is signalized in both the Year 2045 background traffic and Year 2045 total traffic conditions.

Future 42 includes a recommendation that the intersections of SH 42 with Cannon Circle and Harper Street, are restricted to right-in, right-out only movements in the future. Therefore, this analysis assumes that this intersection is restricted in both the Year 2045 background traffic and Year 2045 total traffic conditions.

Refer to a table of the access restriction assumptions for each analysis scenario in **Table 3**.

Transportation Master Plan: The *City of Louisville Transportation Master Plan*[10] identifies recommended improvements for the South Boulder Road corridor. Key considerations were bus rapid transit, improvements to bus stops and frequency of transit service, eliminating right-turn lanes, and providing underpasses and at-grade pedestrian crossings. Refer to an excerpt in **Appendix G**.

South Boulder Road Corridor Evaluation: The City of Louisville also prepared a *South Boulder Road Corridor Evaluation*[11]. This analysis determined that signalization is not appropriate at Cannon Circle due to spacing constraints to the SH 42 traffic signal. Therefore, pedestrian and signage improvements at the Canon Circle intersection were recommended. Additionally, the Commercial Driveway extension to the north was suggested as an alternative roadway connection.

2.2 Proximate Development Projects

The Delo Boom project is proposed to be located on the southeast corner of the Griffith Street and Cannon Street intersection in Louisville, Colorado. The project is proposed to include 36 townhomes, 99 multifamily units, and 4,000 square feet of retail space. It is expected that the project will be completed in the next couple of years. The anticipated traffic associated with the proposed Delo Boom project is included in the short-term and long-term background traffic projections. Data from the *Delo Boom Traffic Impact Study*[12] was used for these projections. Figures for the Year 2026 and Year 2045 Delo Boom traffic assignment are included in the **Appendix**.

2.3 Project Access Locations

Coal Creek Village is proposing three vehicular access locations. These are existing accesses from the site to the adjacent arterial roadway network.. Two accesses will

have direct connectivity to South Boulder Road, one access will have direct connectivity to State Highway 42.

1. Front Street and South Boulder Road
2. Cannon Circle and South Boulder Road
3. Cannon Circle and State Highway 42

A proposed restricted access will connect Coal Creek Village to Front Street in the Little Italy neighborhood. This access will be designed to restrict public vehicular access, while allowing emergency vehicles, bicycles, and pedestrian traffic. The design will be coordinated with the City of Louisville. Refer to the site plan in **Figure 2**.

4. Restricted Front Street Emergency/Pedestrian Access

2.4 Intersection Analysis Locations

This report also studies several additional off-site intersections. The analysis locations and modeling methodology were discussed with City of Louisville Engineering staff before performing the analysis.

1. Main Street & South Boulder Road
2. Front Street & South Boulder Road (Existing Site Access)
3. Cannon Circle & South Boulder Road (Existing Site Access)
4. Courtesy Road & South Boulder Road
5. Cannon Circle & Courtesy Road (SH 42) (Existing Site Access)
6. Griffith Street & Courtesy Road (SH 42)
7. Griffith Street & Cannon Street
8. Griffith Street & Front Street
9. Griffith Street & Main Street
10. Front Street & Harper Street
11. Harper Street & Courtesy Road (SH 42)

3.0 Existing Transportation System

3.1 Description of Existing Transportation System

Highway 42 (SH 42 / Courtesy Road): SH 42 is a north/south major arterial street that is classified as an NR-A roadway by CDOT's *Online Transportation Information System*[1] *(OTIS)*. Within the City of Louisville, the local street name is Courtesy Road. It is a four-lane street with auxiliary lanes north of South Boulder Road and narrows to a two-lane street with auxiliary lanes south of the development site. The posted speed limit is 45mph in both directions in the vicinity of the site. There is a southbound bike lane on the segment of the highway adjacent to this development.

The *Future 42* Plan adopted by the City of Louisville (See **Section 2.1**) informs the different intersection improvement scenarios (See **Section 3.2**) that are studied in this TIS.

South Boulder Road: South Boulder Road is a four-lane divided, east/west major arterial street with auxiliary lanes at some intersections. It is owned and operated by the City of Louisville. The roadway has high traffic volumes, local transit service, on-street bike lanes, and several traffic generators. The speed limit is 35mph in both directions in the vicinity of the site.

Front Street: Front Street is a two-lane north/south local residential street. As a residential street within the City of Louisville, its speed limit is 25 mph.

Cannon Circle: Cannon Circle is a local street that loops around the west and south sides of the commercial properties at the southwest corner of SH 42 and South Boulder Road. A portion of the street has not been constructed. The north-south segment extends 290 feet south from South Boulder Road. The east-west segment extends 200 feet west from SH 42.

Griffith Street: Griffith Street is a two-lane, east-west street that connects Main Street to SH 42. Griffith Street has on-street parking. It has sidewalks on a majority of the roadway. The BNSF railroad has an at-grade crossing of Griffith Street between Main Street and Front Street.

Harper Street: Harper Street is a two-lane, east-west street that connects Front Street to SH 42. Harper Street has sidewalks on both sides and on-street parking. It provides access to the residences in the area.

Main Street: Main Street is a busy two-lane road that is central to Downtown and connects to South Boulder Road. Main Street is lined with retail and parking in

[1] Colorado Department of Transportation, Online Transportation Information System.

Downtown and provides direct access to Louisville Middle School. It has a posted speed limit of 25mph.

BNSF Railroad: The BNSF Railroad has an active freight line through Louisville. Both at-grade crossings at South Boulder Road and Griffith Street have crossbucks and warning systems installed.

3.2 Transportation Network Access Control and Infrastructure Improvement Implementation

There are several anticipated access control changes in both the background traffic and total traffic scenarios. Intersection access control is summarized in Table 3. These assumptions were reviewed with City staff.

Table 2: Intersection Control(s) by Scenario

#	Intersection	Year 2024 Existing	Year 2026 Background	Year 2045 Background	Year 2026 Total	Year 2045 Total
1	Main Street & South Boulder Road	Signal	Signal	Signal	Signal	Signal
2	Front Street & South Boulder Road	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement
3	Cannon Circle & South Boulder Road	Full Movement	Full Movement	Full Movement	3/4 Movement[3]	3/4 Movement[3]
4	Courtesy Road & South Boulder Road	Signal - Exist	Signal - Exist	Signal - Future 42 Conditions	Signal - Exist	Signal - Future 42 Conditions
5	Cannon Circle & SH 42 (Courtesy Road)	Full Movement	Full Movement	RIRO[2]	3/4 Movement	RIRO[2]
6	Griffith Street & SH 42 (Courtesy Road)	Full Movement	Full Movement	Signal	Full Movement	Signal
7	Griffith Street & Cannon Street	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
8	Griffith Street & Front Street	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
9	Griffith Street & Main Street	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
10	Front Street & Harper Street	Full Movement[1]	Full Movement[1]	Full Movement[1]	Full Movement[1]	Full Movement[1]
11	Harper Street & SH 42 (Courtesy Road)	Full Movement	Full Movement	RIRO[2]	Full Movement	RIRO[2]
	Scenario	A	A	B	C	D

Notes: [1]Not Stop Controlled (Free Flowing)
[2]RIRO = Right-In-Right-Out
[3]TIS Recommendation. City may keep full movement configuration until operations require restriction.
[4]The City desires to restrict access to RIRO movements in the future with the signalization of Intersection #6 SH 42 and Griffith Street.

Infrastructure Improvement Assumptions: Key infrastructure improvement assumptions used in the traffic modeling analyses are summarized below.

- Intersection #3 - South Boulder Road and Cannon Circle
    - Developer constructs a ¾ movement intersection at site development
- Intersection #4 - South Boulder Road and SH 42
    - City constructing signalized intersection improvements in future
- Intersection #5 - SH 42 and Cannon Circle intersection
    - Developer constructs a ¾ movement intersection at site development
    - City restricts to RIRO movements in the future with signalization of Intersection #6 SH 42 and Griffith Street
- Intersection #6 - SH 42 and Griffith Street
    - City constructs a traffic signal in the future
- Intersection #10 – Front Street and Harper Street
    - Developer constructs a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is permitted.
- Intersection #11 – SH 42 and Harper Street
    - City restricts to RIRO movements in the future with signalization of Intersection #6 SH 42 and Griffith Street

Table 3: Intersection Access Control

Key infrastructure improvements are described in detail below.

Intersection #1 - South Boulder Road and Main Street Intersection: This 3-legged intersection is signalized. The signal is coordinated with the BNSF Railroad crossing that is located on the eastern leg of the intersection.

The City of Louisville's *Louisville South Boulder Road Connectivity Plan* and the *DRCOG South Boulder Road Corridor Study*[15] both identify a future pedestrian underpass on the western leg of the intersection.

Intersection #2 - South Boulder Road and Front Street Intersection: This intersection serves a private driveway to an apartment complex to the north and the site's existing commercial driveway to the south. In the Summer of 2022, the City of Louisville made changes to the configuration of the South Boulder Road and Front Street intersection by restricting the northbound and southbound left turns.

No additional changes to this intersection are expected.

Intersection #3 - South Boulder Road and Cannon Circle intersection: This full-movement intersection currently serves a commercial driveway to the north and Cannon Circle to the south. This intersection has westbound and eastbound left turn lanes.

The City of Louisville completed a *South Boulder Road Corridor Evaluation*[11]. The resulting recommendations determined that signalization is not appropriate at Cannon Circle due to spacing constraints to the SH 42 traffic signal. Refer to an excerpt in the **Appendix**.

With the buildout of Coal Creek Village, McDowell Engineering recommends that the left turn and northbound/southbound through movements are restricted at Cannon Street at the time of Coal Creek Village buildout. This can be accomplished with the construction of a raised center median at the intersection. All total traffic scenarios are modeled with the northbound left turn lane restricted.

The City is considering keeping the full movement access at this intersection and implementing the ¾ movement access when required by traffic operations in the future.

Intersection #4 - South Boulder Road and SH 42 intersection: This is a full-movement, signalized intersection. The intersection is owned by CDOT and maintained by the City of Louisville. There are double left-turn lanes on all four legs of the intersection. There are westbound and southbound right-turn lanes. U-turns are permitted.

The *Future 42* plan depicts intersection improvements that include northbound and eastbound channelized right turn lanes. The Year 2045 background and total traffic scenarios are modeled assuming the westbound and southbound right turn lanes are constructed.

Intersection #5 - SH 42 and Cannon Circle intersection: This is a full-movement "T" intersection. This intersection has a single auxiliary turn lane: northbound left. Southbound SH 42 is two lanes wide through the intersection. Northbound SH 42 has a single through-lane approaching the intersection, then widens to two lanes north of the intersection.

With the buildout of Coal Creek Village, this intersection will be restricted to a ¾ movement, with left turns out of the site restricted. Therefore, Year 2026 total traffic scenarios are modeled with the eastbound left turns restricted.

Per the *Future 42* Plan, the TIS assumes that the Cannon Circle access allows right-in, right-out movements only. The City desires to restrict access to right-in, right-out only (RIRO) movements in the future with the signalization of Intersection #6 SH 42 and Griffith Street. Therefore, Year 2045 background and total traffic scenarios are modeled with the northbound and eastbound left turns restricted.

Intersection #6 - SH 42 and Griffith Street intersection: This is a full-movement intersection. The east and west legs are stop-controlled. Griffith Street is a public roadway that has an at-grade railroad crossing and accesses Main Street. The east leg of this intersection accesses the Louisville Sports Complex. This intersection currently has southbound and northbound left turn lanes and a southbound right turn lane.

Per the *Future 42* Plan, the TIS assumes that this intersection will be signalized in the future. Therefore, Year 2045 background and total traffic scenarios are modeled with a traffic signal.

Intersection #7 – Griffith Street and Cannon Street intersection: This is a full-movement intersection with stop-control on the north and south legs.

No additional changes to this intersection are expected.

Intersection #8 – Griffith Street and Front Street intersection: This is a full-movement intersection with stop-control on the north and south legs.

No additional changes to this intersection are expected.

Intersection #9 – Griffith Street and Main Street intersection: This is a full-movement "T" intersection. The north and south legs are stop-controlled.

No additional changes to this intersection are expected.

Intersection #10 – Front Street and Harper Street intersection: This is a free-flowing intersection. All analysis scenarios assume no change in the current configuration to the public street. The developer will construct a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is permitted.

Intersection #11 - SH 42 and Harper Street intersection: This is an eastbound stop-controlled full-movement "T" intersection. This intersection is located within SH 42's transition area between two southbound through lanes at South Boulder Road and a separate single southbound through lane and southbound right turn lane on SH 42 for Griffith Street. There is a double yellow stripe for northbound through traffic at the

intersection. Vehicles are still making left turns into and out of Harper Street across the double yellow stripe.

Per the *Future 42 Plan*, the TIS assumes that the Harper Street access allows right-in, right-out movements only. This improvement would likely coincide with the signalization of the SH 42 and Griffith Street intersection. Therefore, Year 2045 background and total traffic scenarios are modeled with the northbound and eastbound left turns restricted.

3.3 Traffic Data Collection

Existing Traffic Volumes: Both weekday and weekend peak traffic operations were studied at the study area intersections. Weekday morning peak hour turning movement counts were collected on Tuesday, November 5, 2024, from 7:00am to 9:00am. Weekday evening peak hour turning movement counts were collected on Tuesday, November 5, 2024, from 4:00pm to 6:00pm. Saturday mid-day peak hour turning movement counts were collected on Saturday, November 2, 2022 from 11:00am to 1:00pm. During the data collection, the weather was clear and school was in session. This data replaces and updates previous traffic data that was collected in August 2020 and November 2022.

Traffic movements at the intersection of SH 42 and Harper Street were determined from the counts collected at the adjacent intersections of SH 42 with Cannon Circle and Griffith Street.

The traffic data collection showed that the peak traffic occurred from 7:45am to 8:45am and 4:00pm to 5:00pm during the weekday. Saturday peak hour traffic occurred from 11:30am to 12:30pm. Raw traffic data is included in the **Appendix**.

4.0 Future Background Traffic Projections

Background traffic refers to the anticipated future traffic without the development of the proposed Coal Creek Village project.

The existing traffic counts are used to determine the forecasted background traffic volumes using industry-standard background annual traffic growth rates, additional adjacent development traffic, and travel route adjustments for modified access control scenarios.

4.1 Background Annual Traffic Growth

Growth factors for South Boulder Road, SH 42, and Main Street were derived from the traffic volume projections for 2020 and 2050 published by the *Denver Regional Council of Governments*[2] *(DRCOG)*. The resulting average annual growth rate was 1.30% for these corridors. Calculations are included in the **Appendix**.

All properties served by the opposing driveways on the north side of South Boulder Road, the east side of SH 42, and along Griffith Street are assumed to be built out. Therefore, no growth rate was applied to these access points.

4.2 Proximate Development Projects

As described in **Section 2.2**, the Delo Boom project is anticipated to impact the analysis intersections. Data from the *Delo Boom Traffic Impact Study*[12] was used for all future Year 2026 and Year 2045 traffic projections. Figures for the Year 2026 and Year 2045 Delo Boom traffic assignment are included in the **Appendix**.

4.3 Travel Route Adjustments for Modified Access Control Scenarios

As described in **Section 3.2**, there are several anticipated access control changes in both the background traffic and total traffic scenarios. Modifications to the allowed turning movements at the analysis intersections and the planned future construction of a traffic signal at SH 42 and Griffith Street will impact the travel routes of both existing and future traffic.

- Background and total traffic modifications for each applicable scenario were calculated based on data from DRCOG and the *Louisville Transportation Masterplan*. Data referencing residents' and visitors' origins and destinations was compared to anticipated travel time differences. Additionally, South Boulder Road and SH 42 are already at capacity during peak traffic hours. This makes it difficult to make certain left and through movements from side streets. Long signal cycle lengths (120 seconds) at the intersection of SH 42 and South Boulder Road can

[2] Denver Regional Council of Governments, 2020 & 2050 Model Assigned All-Day Volumes. August 2022.

cause substantial side street delay along these corridors. The delay caused by this difficulty impacts the travel route and travel time.

Gravity-based travel time calculations were used to determine ideal origin and destination routes based upon both distance and trip time. Travel time tools for existing routes were compared using Google Maps and Apple Maps - two mobile apps that are regularly utilized by drivers to route them to their destination efficiently.

City of Louisville's *Transportation Master Plan* provided statistics on the community's activity centers, areas of future development potential, locations of where Louisville residents work, and locations of where Louisville employees live.

- Currently, 40% of all trips made within, to, or from Louisville are work-related.[3]
- Approximately 93% of Louisville employees live outside of Louisville, and 7% live within the City, which has influences on commuting corridors including US 36, US 287, and Hwy 119[4]
- Louisville residents work in Boulder (28%) and Denver (14%). Approximately 89% of employed residents work outside of Louisville, which has influences on commuting corridors including US 36, US 287, and Hwy 119[5]
- Anticipated increased queuing distance, delays, and congestion along South Boulder Road with increased background traffic growth, since South Boulder Road is already at capacity

Most of the study area intersections are impacted by the access modifications described below. Specific modifications for each applicable scenario are included in the **Appendix**.

<u>Intersection #3 - South Boulder Road and Cannon Circle intersection</u>: With the development of Coal Creek Village, it is recommended that this intersection be restricted to a ¾ movement, with left turns out of the site restricted. Vehicles desiring to make a northbound left turn movement out of the site were redistributed on South Boulder Road. Details of this shift can be found in the **Appendix**.

<u>Intersection #4 - South Boulder Road and SH 42 intersection</u>: Due to the restriction of left turns out of the site at Cannon Circle with the development of Coal Creek Village, additional U-turn movements are anticipated at this signalized intersection. A significant weave motion between the site accesses and the SH 42 traffic signal are anticipated to accommodate both U-turns at the signal and eastbound left turn

[3] Louisville TMP, August 2019, Page 3-17
[4] Louisville TMP, August 2019, Page 3-16
[5] Louisville TMP, August 2019, Page 3-15

movements onto SH 42 to use an alternate route to access destinations north and west of the site.

Intersection #5 - SH 42 and Cannon Circle intersection: With the buildout of Coal Creek Village, this intersection will be restricted to a ¾ movement, with left turns out of the site restricted. Per the *Future 42* Plan, the Cannon Circle access will allow right-in, right-out movements only in Year 2045 background and total traffic scenarios. The City desires to restrict access to right-in, right-out only (RIRO) movements in the future with the signalization of Intersection #6 SH 42 and Griffith Street.

Vehicles desiring to make left turns at this access were re-routed on SH 42. Details of this shift can be found in the **Appendix**.

Intersection #6 - SH 42 and Griffith Street intersection: Per the *Future 42* Plan, this intersection will be signalized in the future. Therefore, it will be easier to make an eastbound left turn movement in the future at this intersection. Details of this shift can be found in the **Appendix**.

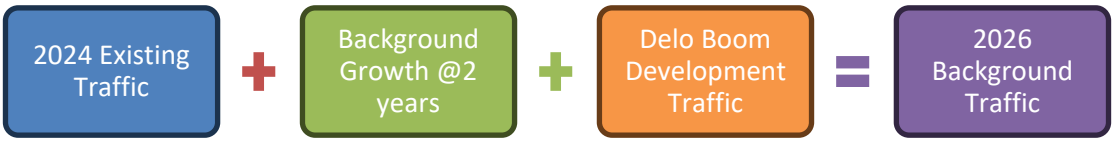
At current intersection volumes, no signal warrants are met. Nor is the intersection anticipated to meet MUTCD warrant volumes with the long-term buildout conditions of Coal Creek Village. The City should monitor the intersection volumes in the future to determine when the intersection may meet MUTCD signal warrant volumes.

Intersection #11 - SH 42 and Harper Street intersection: Per the *Future 42* Plan, the Harper Street access will allow right-in, right-out movements only in Year 2045 background and total traffic scenarios. Vehicles desiring to make left turns at this access were re-routed on SH 42. Details of this shift can be found in the **Appendix**.

4.4 Year 2026 Background Traffic Forecasts

The forecasted Year 2026 background traffic is the combination of the November 2024 existing traffic volumes with the applied average annual traffic growth on the mainline streets and Delo Boom traffic assignment. This calculation methodology is depicted in **Figure 3**. The resulting projected Year 2026 background traffic volumes can be seen in **Figure 5**.

Figure 3: 2026 Background Schematic Diagram



4.5 Year 2045 Background Traffic Forecasts

The forecasted Year 2045 background traffic is the combination of the November 2024 existing traffic volumes with the applied average annual traffic growth on the mainline streets, Delo Boom traffic assignment, and redistributed traffic for the anticipated access control changes. This calculation methodology is depicted in **Figure 4**. The resulting projected Year 2026 background traffic volumes can be seen in **Figure 6**.

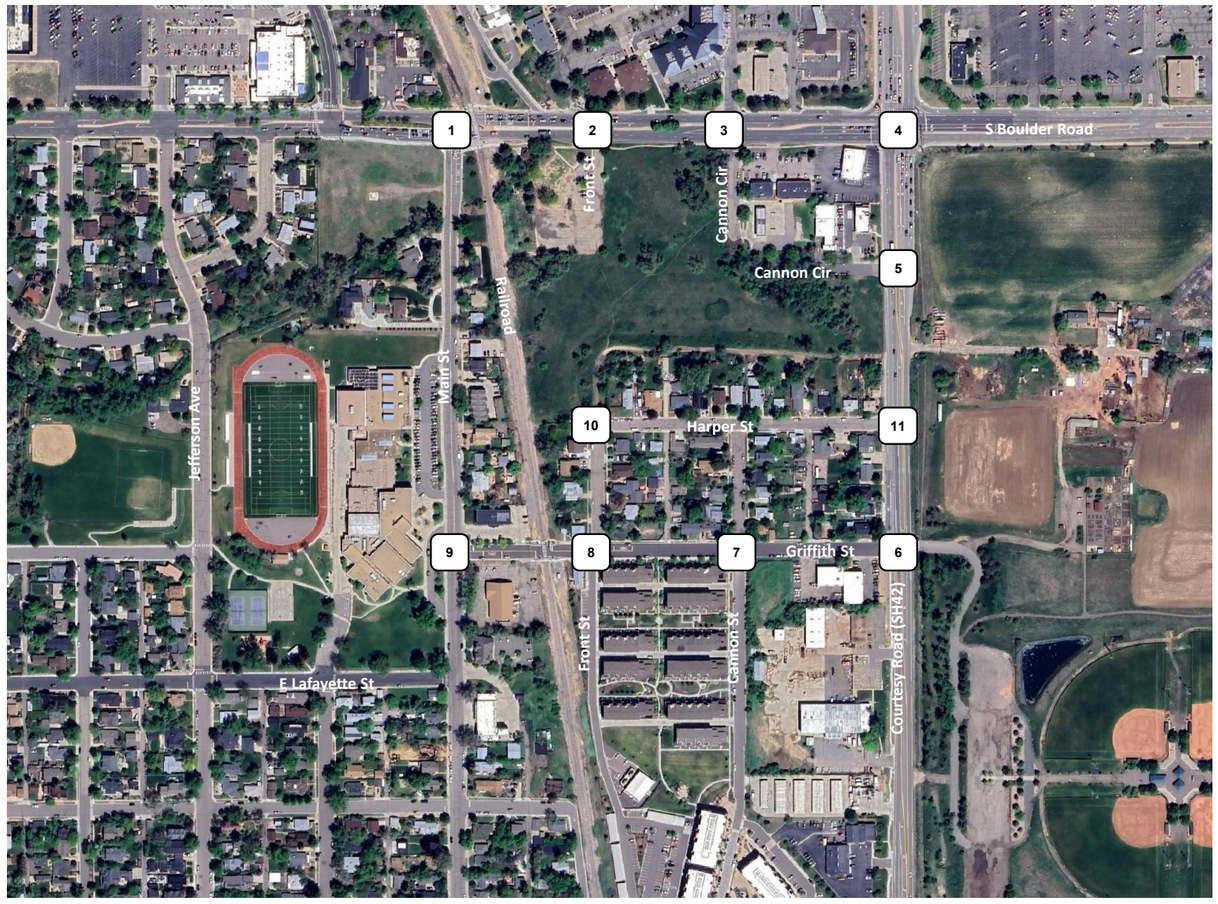
Figure 4: 2045 Background Schematic Diagram

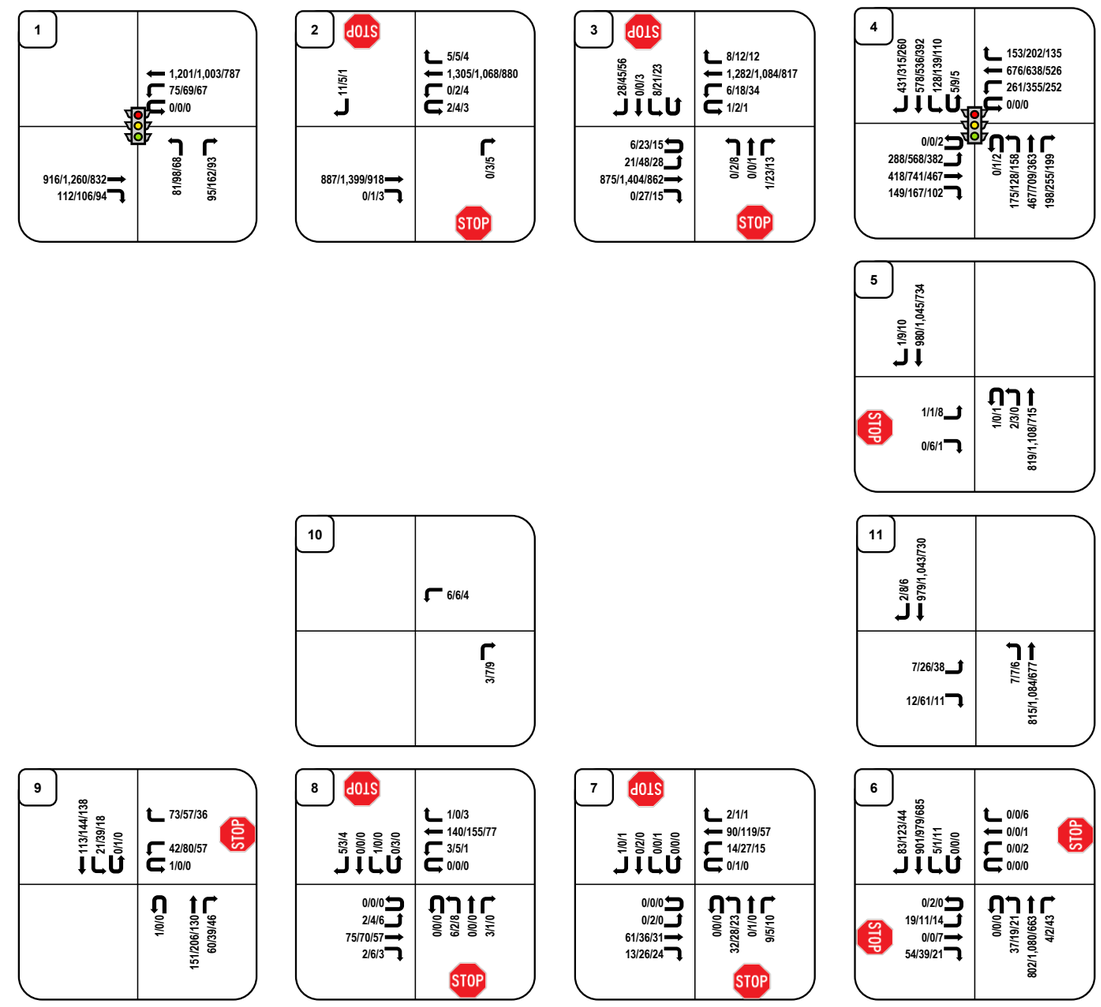
Table 4 summarizes the background traffic intersection scenarios and the corresponding figures used to calculate them.

Table 4: Background Traffic Figures Summary

Scenario (from Table 3)	Existing Traffic	Annual Growth Rate	Delo Boom Traffic	Travel Route Adjustments Figures	Background Traffic Figures
Scenario A: Year 2026 Background Traffic	**Appendix Figure AP01**: Year 2024 Existing Traffic	**Section 4.1**	**Appendix Figure AP02**: Year 2026 Background Traffic (Delo Boom Development)	**Appendix Figure AP04**: Year 2026 Background Adjust (Int #5 & #6 Redistribution)	**Figure 5**: Year 2026 Background Traffic
Scenario B: Year 2045 Background Traffic	**Appendix Figure AP01**: Year 2024 Existing Traffic	**Section 4.1**	**Appendix Figure AP03**: Year 2045 Background Traffic (Delo Boom Development)	**Appendix Figure AP04**: Year 2045 Background Adjust (Int #5 & #6 Redistribution)	**Figure 6**: Year 2045 Background Traffic

Figure 5: Year 2026 Background Traffic





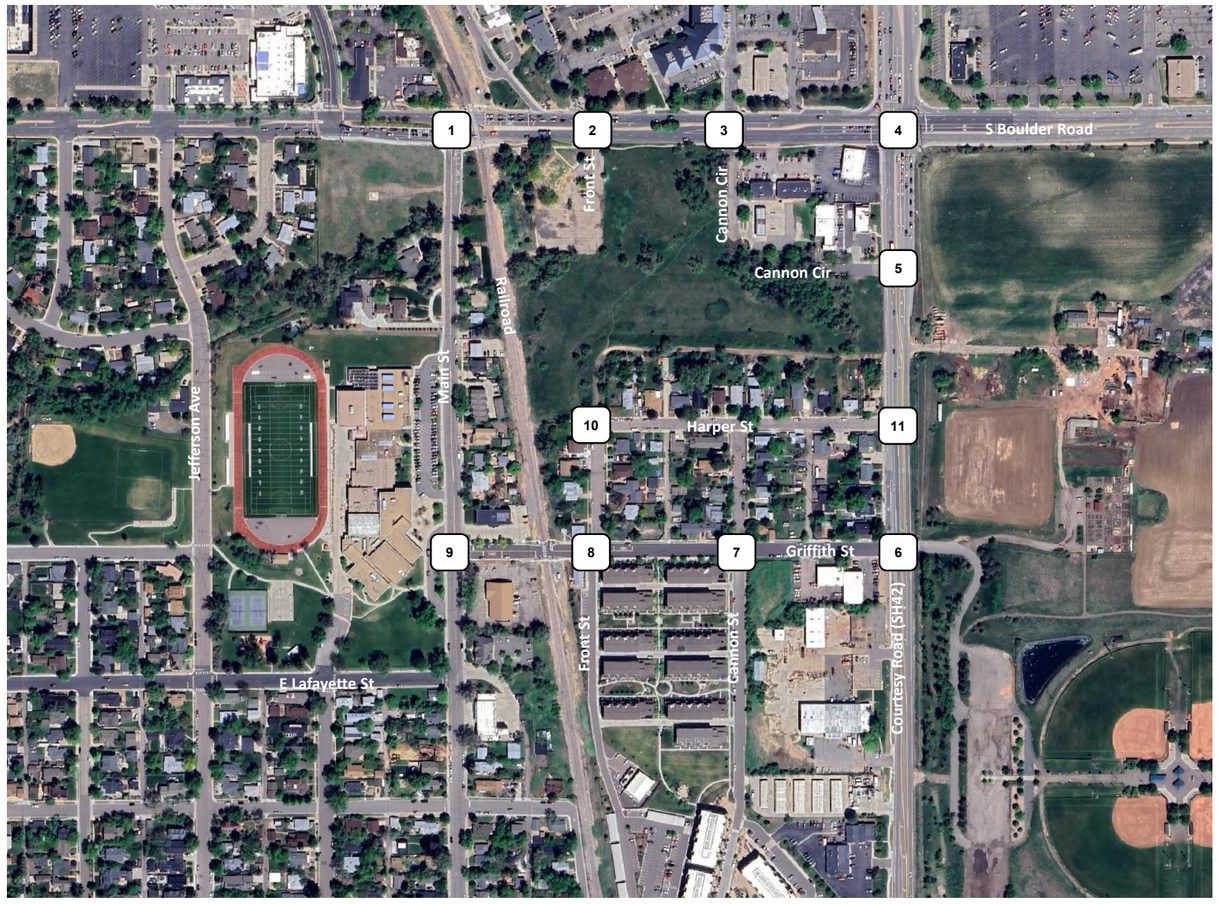
McDowell Engineering LLC
Transportation Engineering Consultants

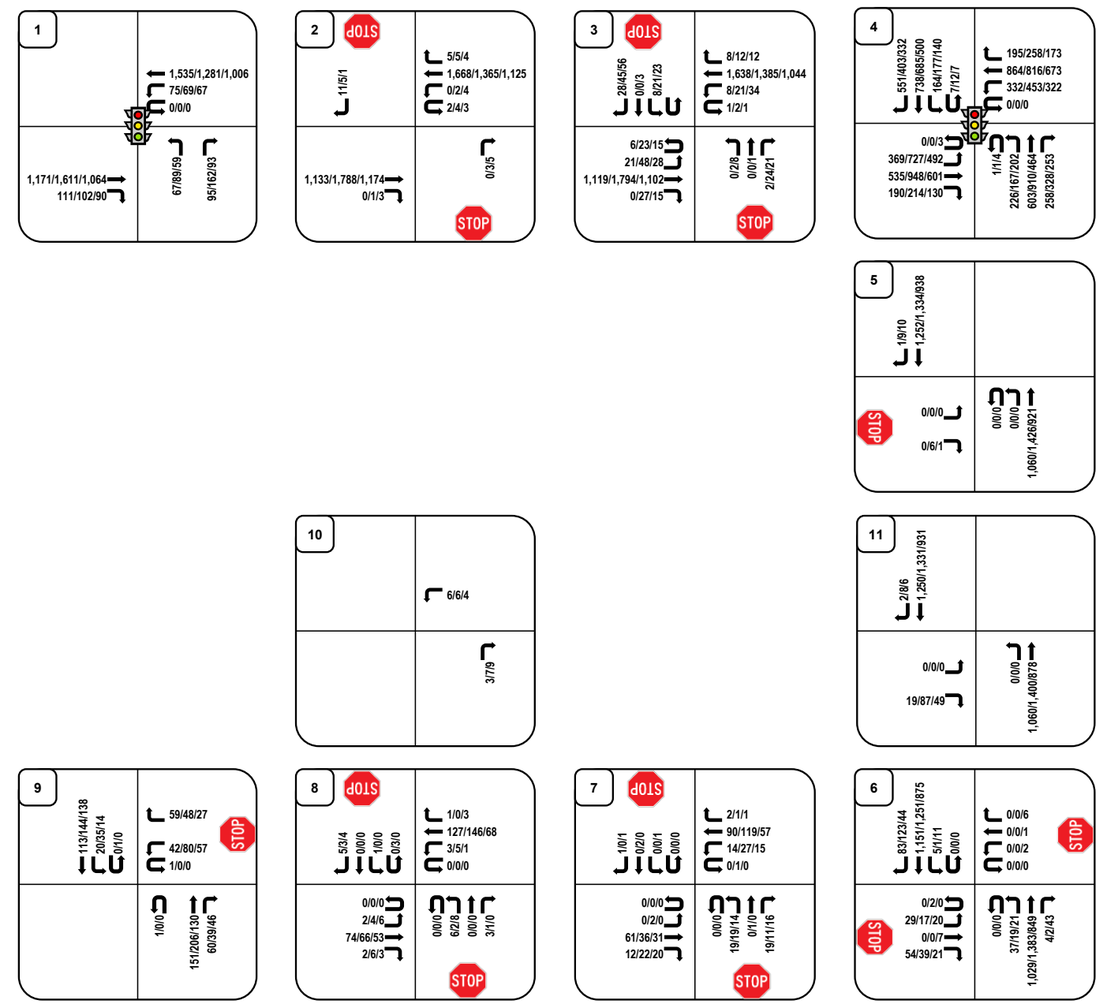
LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

Project Number	M1663
Prepared By	GWS
	9/28/2026

Coal Creek Station
Louisville, CO

Figure 6: Year 2045 Background Traffic





McDowell Engineering, LLC
Transportation Engineering Consultants

LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

Project Number	M1663
Prepared By	GWS
	9/28/2026

Coal Creek Station
Louisville, CO

4.6 Background Traffic Level of Service

Using *Highway Capacity Manual*[6] *(HCM)* methodology, Synchro Version 10 software was used to determine the delay and Level of Service (LOS.) *HCM* LOS is defined by the following criteria:

Table 5: HCM Level of Service Criteria

LOS	Expected Delay to Minor Street Traffic	Average Signal Delay (Seconds/Vehicle)	Average Stop-Controlled Delay (Seconds/Vehicle)
A	Little or no delay.	0-10	0-10
B	Short traffic delays.	>10-20	>10-15
C	Average traffic delays.	>20-35	>15-25
D	Long traffic delays.	>35-55	>25-35
E	Very long traffic delays.	>55-80	>35-50
F	When volume exceeds the capacity of the lane extreme delays will be encountered with queuing that may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improving the intersection.	>80	>50

Table 6 shows the resulting LOS as determined by HCM analysis. The Synchro reports for the background level of service analysis can be found in the **Appendix**. These projections reflect the peak morning and evening traffic in Year 2026 and Year 2045.

[6] Highway Capacity Manual, 6th Edition. Transportation Research Board, 2016.

Table 6: Background Traffic Level of Service

#	Intersection	Traffic Control	Approach	Year 2026 Background Level of Service (Delay in Seconds)			Year 2045 Background Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
1	South Boulder Road & Main Street	Signal	EBT	A (7.5)	A (9.6)	A (6.6)	A (8.5)	B (10.8)	A (7.0)
			EBR	A (1.3)	A (2.4)	A (1.4)	A (2.1)	A (3.0)	A (1.4)
			WBL	A (5.1)	A (7.4)	A (3.1)	A (5.1)	A (9.5)	A (2.9)
			WBT	A (5.9)	A (6.6)	A (3.2)	A (7.3)	A (7.9)	A (2.9)
			NBL	D (55.0)	E (55.3)	D (47.5)	D (53.1)	E (59.8)	D (47.0)
			NBR	B (13.9)	B (15.3)	B (14.4)	B (14.1)	C (29.0)	B (15.0)
2	South Boulder Road & Front Street	3/4, NB/SB Stop	WBL	C (15.3)	C (24.3)	B (12.9)	C (20.5)	E (41.3)	C (16.3)
			NB	A (0.0)	C (15.9)	B (12.3)	A (0.0)	C (20.1)	B (14.0)
			SB	C (15.3)	B (13.3)	B (12.0)	C (19.1)	C (15.6)	B (13.6)
3	South Boulder Road & Cannon Circle	NB/SB Stop	EBL	C (16.6)	C (16.9)	B (12.5)	C (24.8)	D (25.8)	C (15.6)
			WBL	B (10.9)	C (16.2)	B (10.6)	B (12.5)	C (23.2)	B (12.2)
			NB	B (12.0)	E (47.6)	E (44.3)	B (13.6)	F (186.8)	F (91.1)
			SB	E (50.0)	F (324.2)	F (53.2)	F (194.7)	F (1776.7)	F (216.3)
4	SH 42 (Courtesy Road) & South Boulder Road	Signal	EBL	E (55.1)	F (121.1)*	F (505.8)*	E (63.8)*	F (215.3)*	F (863.0)*
			EBT	C (30.2)	D (46.2)*	C (25.2)	C (29.4)	D (41.7)*	C (25.8)
			EBR	-	-	-	B (11.3)	A (9.1)	A (1.8)
			WBL	E (61.5)	F (109.4)*	E (75.6)*	E (65.1)*	F (167.8)*	F (99.5)*
			WBT	D (42.5)	D (47.3)	C (33.7)	D (48.4)*	E (56.6)*	C (34.9)
			WBR	A (4.9)	A (7.8)	A (1.8)	A (8.5)	B (14.5)	A (3.7)
			NBL	E (63.0)	F (180.8)*	F (183.0)*	F (529.6)*	F (305.6)*	F (313.5)*
			NBT	C (32.6)	E (76.8)*	C (26.6)	D (35.5)	D (48.8)*	C (25.0)
			NBR	-	-	-	A (9.4)	B (12.2)	A (7.4)
			SBL	F (193.3)*	F (240.4)*	F (94.1)*	F (321.4)*	F (372.3)*	F (152.0)*
			SBT	D (37.0)	D (38.6)	C (29.2)	D (39.2)	D (40.2)	C (29.1)
			SBR	B (17.0)	A (6.0)	A (5.4)	C (31.8)*	A (9.2)	A (6.9)
5	SH 42 (Courtesy Rd) & Cannon Circle	EB Stop	EB	F (65.1)	D (28.5)	E (38.2)	A (0.0)	C (15.2)	B (12.2)
			NBL	B (14.1)	B (11.0)	C (15.7)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	EB/WB Stop	EB	F (76.4)	F (96.9)	E (39.2)	-	-	-
			WB	F (70.2)	F (115.0)	D (26.5)	-	-	-
			NB	A (0.5)	A (0.2)	A (0.3)	-	-	-
			SB	A (0.0)	A (0.0)	A (0.1)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	Signal	EBL	-	-	-	C (26.7)	C (25.3)	C (20.5)
			EBT	-	-	-	A (0.7)	A (0.5)	B (11.0)
			WBL	-	-	-	C (24.0)	C (24.0)	B (18.5)
			WBT	-	-	-	C (21.0)	C (21.0)	B (13.3)
			NBL	-	-	-	C (26.5)	C (25.1)	B (17.7)
			NBT	-	-	-	A (3.9)	A (4.9)	A (4.8)
			SBL	-	-	-	C (29.0)	C (32.0)	B (17.5)
			SBT	-	-	-	A (4.4)	A (5.2)	A (4.7)
			SBR	-	-	-	A (0.6)	A (1.7)	A (0.7)
7	Griffith Street & Cannon Street	NB/SB Stop	EB	A (0.0)	A (0.2)	A (0.0)	A (0.0)	A (0.3)	A (0.0)
			WB	A (1.0)	A (0.0)	A (1.5)	A (1.0)	A (0.0)	A (1.5)
			NB	A (9.9)	B (10.3)	A (9.4)	A (9.6)	A (9.9)	A (9.2)
			SB	A (8.9)	B (10.7)	A (9.1)	A (8.9)	B (10.7)	A (9.2)
8	Griffith Street & Front Street	NB/SB Stop	EB	A (0.2)	A (0.4)	A (0.7)	A (0.2)	A (0.4)	A (0.7)
			WB	A (0.2)	A (0.2)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
			NB	A (9.9)	A (10.0)	A (9.8)	A (9.8)	A (9.9)	A (9.7)
			SB	A (9.3)	A (9.2)	A (8.8)	A (9.3)	A (9.2)	A (8.8)
9	Griffith Street & Main Street	WB Stop	WB	B (13.9)	B (12.9)	B (11.2)	B (13.6)	B (12.8)	B (11.2)
			SB	A (1.3)	A (0.0)	A (0.9)	A (1.2)	A (0.0)	A (0.7)
10	Harper Street & Front Street	None	WB	-	-	-	-	-	-
			SB	-	-	-	-	-	-
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	EB	D (33.7)	F (118.0)	E (40.9)	B (14.7)	C (18.2)	B (12.9)
			NBL	B (10.4)	B (10.7)	A (9.3)	-	-	-

* Indicates LOS F with volume exceeding capacity (delays in seconds likely not accurate due to modelling limitations)

As can be seen in **Table 6**, unsignalized intersections on South Boulder Road and SH 42 will continue to see longer wait times/delay as traffic on these arterial streets continue to grow and there are less gaps in traffic to make a left turn movement onto the larger road. Left turns at the South Boulder Road and SH 42 traffic signal continue to be starved for time, resulting in failing LOS for these movements. These degradations and failures will occur with or without the addition of the proposed Coal Creek Village traffic.

Intersection #1 - South Boulder Road and Main Street Intersection: This 3-legged intersection is signalized. The signal is coordinated with the BNSF Railroad crossing that is located on the eastern leg of the intersection.

This intersection will see acceptable LOS A and B on all mainline eastbound and westbound movements. As is typical with side streets to major arterials, the side street receives less green time from the traffic signal. As the signal timing is currently set, Main Street is anticipated to operate with failing LOS E and F. Overall intersection LOS is B or better through Year 2045 background traffic conditions.

Intersection #2 - South Boulder Road and Front Street Intersection: This unsignalized intersection is anticipated to operate at an acceptable overall intersection LOS A for Year 2026 background traffic conditions and LOS B through Year 2045 background traffic conditions.

The northbound right turn movement is anticipated to operate LOS C or better through background Year 2045 conditions.

The westbound left turn is currently operating at an acceptable LOS C. By Year 2045 background traffic conditions, this movement is anticipated to degrade to a LOS E, as gaps in South Boulder Road traffic decrease.

Intersection #3 - South Boulder Road and Cannon Circle intersection: This full-movement intersection currently serves a commercial driveway to the north and Cannon Circle to the south. All mainline South Boulder Road movements are anticipated to operate at an acceptable LOS of D or better through Year 2045 background traffic conditions.

As is typical with unsignalized side street traffic accessing a major arterial, side street traffic operations for left and through movements will continue to degrade over time as traffic volumes on South Boulder Road continue to grow. The northbound and southbound movements are anticipated to experience failing LOS F operations.

The City of Louisville completed a *South Boulder Road Corridor Evaluation*[11]. The resulting recommendations determined that signalization is not appropriate at Cannon Circle due to spacing constraints to the SH 42 traffic signal. Refer to an excerpt in the **Appendix**.

Intersection #4 - South Boulder Road and SH 42 intersection: This is a full-movement, signalized intersection. The *Future 42* plan depicts intersection improvements that include northbound and eastbound channelized right turn lanes. The Year 2045 background and total traffic scenarios are modeled assuming the westbound and southbound right turn lanes are constructed. Even with these future improvements, this intersection has movements that are anticipated to operate at a failing LOS F for both Year 2026 and Year 2045 background conditions. The overall intersection LOS is between D and F for these scenarios.

This intersection has below acceptable LOS due to the high traffic volumes it handles. The current traffic volumes are too high to be flushed out of the intersection within one cycle during peak traffic hours. This causes vehicles to wait in queues for more than one cycle. LOS on the north and south legs of SH 42 are slightly better than on the South Boulder Road's east and west legs. This is due to CDOT's prioritization of SH 42 and giving the highway more green time.

Intersection #5 - SH 42 and Cannon Circle intersection: This is currently a full-movement "T" intersection. Mainline SH 42 is anticipated to operate at good LOS in Year 2026 background traffic conditions. However, the eastbound leg is already experiencing failing LOS F during peak traffic hours.

Future 42 identifies that this access will be restricted to right-in, right-out only movements in the future. This improvement would likely coincide with the signalization of the SH 42 and Griffith Street intersection. With the access restriction, this access will operate at acceptable LOS C or better through Year 2045 background traffic conditions.

Intersection #6 - SH 42 and Griffith Street intersection: This is currently a full-movement intersection. Mainline SH 42 is anticipated to operate at acceptable LOS A under short-term background traffic conditions. However, the side streets are currently seeing significant delays during peak traffic. The west leg is currently operating at a LOS F due to the delay experienced turning out onto SH 42.

Per the *Future 42* Plan, the TIS assumes that this intersection will be signalized in the future. Year 2045 background and total traffic scenarios are modeled with a traffic signal. The signal timing used assumed a half-cycle (from the South Boulder Road intersection) of 60 seconds for the morning and evening peak hours and 50 seconds for the Saturday peak hour. The green time on SH 42 was prioritized. The maximum bandwidth was used to coordinate the signals with the SH 42 and South Boulder Road intersection. This improved the northbound LOS at the SH 42 and South Boulder Road intersection. The southbound movement into this intersection was limited by the constraints of the upstream South Boulder Road cycle.

The side street operations are anticipated to improve to LOS C with signalization. Mainline SH 42 may degrade due to the added delay to the corridor. SH 42 is

anticipated to operate at a LOS D or better through Year 2045 background traffic conditions.

Intersection #7 – Griffith Street and Cannon Street intersection: This is a full-movement intersection with stop-control on the north and south legs. This intersection is anticipated to operate at acceptable LOS A or B for all movements for both Year 2026 and Year 2045 background conditions.

Intersection #8 – Griffith Street and Front Street intersection: This is a full-movement intersection with stop-control on the north and south legs. This intersection is anticipated to operate at LOS A for all movements for both Year 2026 and Year 2045 background conditions.

Intersection #9 – Griffith Street and Main Street intersection: This is a full-movement "T" intersection. The east leg is stop-controlled. This intersection is anticipated to operate at LOS B or better for all movements for both Year 2026 and Year 2045 background conditions.

Intersection #10 – Front Street and Harper Street intersection: This is a free-flowing intersection. There is an unimproved alley access as a third, north leg. All background scenarios assume no change in the current configuration. All legs of this intersection are anticipate to operate at a LOS A.

Intersection #11 – SH 42 and Harper Street intersection: Left turns at this intersection currently experience delay into and out of the site during peak traffic on SH 42. Currently, through movements on SH 42 are operating at a LOS A. Eastbound Harper Street is operating at a LOS F during the evening peak hour.

Per the *Future 42* Plan, the Harper Street access will be restricted to right-in, right-out movements by the Year 2045 background traffic conditions. With this scenario, the eastbound movement is anticipated to improve to a LOS C.

5.0 Project Traffic

5.1 Trip Generation

The Institute of Transportation Engineers' (ITE) *11th Edition of the Trip Generation Manual*[7] *(Trip Generation Manual)* was used to determine the anticipated trip generation for the Coal Creek Village development. Site-generated traffic volumes were determined for the weekday morning peak hour, the weekday afternoon peak hour, and the Saturday midday peak hour.

The trip generation analysis used the following ITE Land Uses:

Table 7: ITE Land Use Codes

ITE Code	Land Use Category	Size	
220	Multifamily Housing (Low-Rise)	188	Dwelling Units
822	Retail Plaza (<40K)	13.53	1000 Sq. Ft. GFA*
930	Fast Casual Restaurant (Existing Empanada Shop)	0.43	1000 Sq. Ft. GFA*

GFA = Gross Floor Area

As per ITE's *Trip Generation Handbook*[8] methodology, the trip generation regression equations and average rates were utilized as part of this analysis.

Existing Empanada Shop: As previously mentioned, the existing Empanada shop was operating during the November 2024 traffic data collection. Therefore, the existing and background traffic counts already include the empanada shop's traffic.

It is anticipated that with the buildout of the Coal Creek Village project, a portion of Coal Creek Village's residents and patrons will access the empanada shop. Therefore, an internal capture reduction is applied to the existing empanada shop's traffic in the total traffic scenarios.

Multimodal Reduction: A five percent (5%) multimodal reduction was applied to all the proposed land uses. The development is within walking and biking distance to Louisville Middle School, Fairview Montessori School, the Louisville Sports Complex, and various commercial facilities. There are bike lanes on South Boulder Road and on SH 42. There are bus stops for the RTD DASH Route adjacent to the development on South Boulder Road.

Internal Capture: Internal capture traffic refers to trips that occur within a mixed-use development (like trips between a residential area and a retail area within the same site), rather than trips that originate or end outside the development. This capture

[7] Trip Generation Manual, 11th Edition. Institute of Transportation Engineers, 2021.
[8] Trip Generation Handbook, 3rd Edition. Institute of Transportation Engineers, 2017.

reduces the overall number of trips that would otherwise use the external road network.

The ITE *Trip Generation Handbook*[9] was used to determine the internal capture reductions for the proposed residential and commercial developments. Internal reduction calculations for the average weekday, AM peak hour, and PM peak hour are included in the **Appendix**. Data for the Saturday peak hour was not available. Therefore, the internal reductions rates for the PM peak hour were used for the Saturday peak hour.

Project Trip Generation: The proposed development, including the existing empanada shop, is expected to generate a total of 1,839 vehicle trips on the adjacent roadway network over the course of an average weekday (vpd). This includes 175 vehicle trips per hour (vph) during the morning peak hour, 244vph during the evening peak hour, and 144vph during the Saturday peak hour.

The existing empanada shop is already generating traffic, as detailed in the traffic counts and **Table 8**. The additional traffic associated with only the Coal Creek Village development is anticipated to generate an additional 1,779 vehicle trips on the adjacent roadway network over the course of an average weekday (vpd). This includes 173 vehicle trips per hour (vph) during the morning peak hour, 238vph during the evening peak hour, and 132vph during the Saturday peak hour.

[9] Trip Generation Handbook, 2nd Edition. Institute of Transportation Engineers, 2004.

Table 8: Project Trip Generation

ITE Code	Units [2]		Eq. Coef	ITE Trip Generation Equation[3] Avg. Weekday	AM Peak Hour	PM Peak Hour	Sat. Peak Hour	Average Weekday Trips (vpd)	Morning Peak Hour Inbound % Trips	Morning Peak Hour Inbound Trips (vph)	Morning Peak Hour Outbound % Trips	Morning Peak Hour Outbound Trips (vph)	Evening Peak Hour Inbound % Trips	Evening Peak Hour Inbound Trips (vph)	Evening Peak Hour Outbound % Trips	Evening Peak Hour Outbound Trips (vph)	Saturday Peak Hour Inbound % Trips	Saturday Peak Hour Inbound Trips (vph)	Saturday Peak Hour Outbound % Trips	Saturday Peak Hour Outbound Trips (vph)
Existing Land Use																				
Empanada Shop (Actual Derived Rate Equations) [6]	0.43	kSF	Type a= b=	Rate 139.53	Rate 4.65	Rate 13.95	Rate 27.91	60	50%	1	50%	1	50%	3	50%	3	58%	7	42%	5
Existing External Restaurant Vehicular Trips								**60**		**1**		**1**		**3**		**3**		**7**		**5**
Internal Capture Reduction[4]								-23		0		0		-1		-1		-2		-2
External Restaurant Vehicular Trips with Buildout of Coal Creek Station [7]								**37**		**1**		**1**		**2**		**2**		**5**		**3**
										2				***4***				***8***		
Proposed Residential Land Use																				
#220 - Multifamily Housing (Low-Rise)	188	DU	Type a= b=	A 6.41 75.31	A 0.35 28.13	A 0.42 34.78	Rate 0.41	1,280	24%	23	76%	71	62%	71	38%	43	51%	39	49%	38
Multi-Modal Reduction		*-5%*						*-64*		*-1*		*-4*		*-4*		*-2*		*-2*		*-2*
Vehicular Trips								**1,216**		**22**		**67**		**67**		**41**		**37**		**36**
Internal Capture Reduction[4]								-82		-3		-2		-10		-9		-6		-5
Project External Residential Vehicular Trips								**1,134**		**19**		**65**		**57**		**32**		**31**		**31**
										84				***89***				***62***		
Proposed Commercial Land Use																				
#822 - Retail Plaza[5]	13.53	kSF	Type a= b=	A 42.20 229.68	Rate 7.60	Rate 13.24	Rate 6.57	801	50%	51	50%	51	54%	97	46%	82	51%	45	49%	44
Multi-Modal Reduction		*-5%*						*-40*		*-3*		*-3*		*-5*		*-4*		*-2*		*-2*
Vehicular Trips								**761**		**48**		**48**		**92**		**78**		**43**		**42**
Internal Capture Reduction[4]								-93		-3		-4		-9		-10		-5		-6
Project External Commercial Vehicular Trips								**668**		**45**		**44**		**83**		**68**		**38**		**36**
										89				***151***				***74***		
Project Trip Generation Summary																				
Existing External Restaurant Vehicular Trips								**60**		**1**		**1**		**3**		**3**		**7**		**5**
External Restaurant Vehicular Trips with Buildout of Coal Creek Station7								**37**		**1**		**1**		**2**		**2**		**5**		**3**
										2				***4***				***8***		
Project External Residential Vehicular Trips								**1,134**		**19**		**65**		**57**		**32**		**31**		**31**
										84				***89***				***62***		
Project External Commercial Vehicular Trips (Less Empanada Shop Internal Capture)								**645**		**45**		**44**		**82**		**67**		**36**		**34**
										89				***149***				***70***		
Project Total New Vehicular Trips (Restaurant's new internal capture + residential + commercial)								**1,779**		**64**		**109**		**139**		**99**		**67**		**65**
										173				***238***				***132***		
Project Total Vehicular Trips (Including Existing Restaurant + Restaurant's new internal capture + residential + commercial)								**1,839**		**65**		**110**		**142**		**102**		**74**		**70**
										175				***244***				***144***		

Notes:

[1] Values obtained from *Trip Generation, 11th Edition,* Institute of Transportation Engineers, September 2021.

[2] vpd = vehicle trips per day, vph = vehicle trips per hour, DU = Dwelling Units, kSF = 1,000 Square Feet

[3] Fitted curve equations from ITE Land Uses - Equation Type A is T = a * X + b, Equation Type B is Ln(T) = a * Ln(X) + b, Rate is T = a * X

[4] Internal capture reductions were obtained from the *ITE Trip Generation Handbook* , Second Edition, June 2004. See calculations in Appendix.

[5] The ITE Trip Generation Manual did not have available data for the directional distribution of the Saturday peak hour. Therefore, the distribution from mid-rise multifamily housing was

[6] Trip generation rates were calculated from existing traffic counts onsite. Weekday rates were estimated by using a 10% DHV rate based upon the PM Peak hour. A minimum of 1vph inbound/outbound was used for the AM peak (Actual counts were 0vph inbound and 0vph outbound)

[7] External Restaurant Vehicular Trips are the sum of the empanada shop existing traffic with the anticipated internal capture traffic reduction that will occur at project buildout.

5.2 Project-Generated Traffic Directional Distribution

The distribution of project-generated vehicular traffic on adjacent roadways is influenced by several factors including the following:

- The location of the site relative to other commercial and healthcare facilities and the roadway network.
- The configuration of the existing and proposed adjacent roadway network
- Relative location of neighboring population centers.
- The proposed development has three vehicular accesses.
    - Distributions per access are dependent upon the general origin/destination of traffic.
    - Access restrictions are being imposed for Coal Creek Village's two accesses onto South Boulder Road and access onto SH 42. This will significantly impact Coal Creek Village's residents and patrons that wish to make the following movements:
        - Westbound on South Boulder Road
        - Northbound on SH 42
- Access control variations for each analysis scenario (from **Table 2**), with consideration for travel times and access configurations and restrictions.

From the review of the traffic data, TMP data, and factors described above; it was determined that generally 30% of site traffic is coming from/going to the west on South Boulder Road, 20% has destinations/origins to the north on SH 42, 20% has destinations/origins to the south on SH 42, 20% has destinations/origins to the south in the Main Street area, and 10% has destinations/origins to the east on South Boulder Road.

The anticipated directional distribution for the project-generated vehicular traffic is detailed in **Figure 11** and **Figure 12** for the 2026 residential and retail project-generated traffic, respectively. The 2045 residential and retail project-generated traffic directional distribution is depicted in **Figure 14** and **Figure 15**, respectively.

5.3 Internal Site Circulation

The proposed street configuration for Coal Creek Village provides good internal circulation and alternate routes to access adjacent arterial streets. Access restrictions will require that drivers wanting to go west on South Boulder Road or north on SH 42 may need to adjust their travel routes, as left turns out of the site are prohibited onto these two roadways.

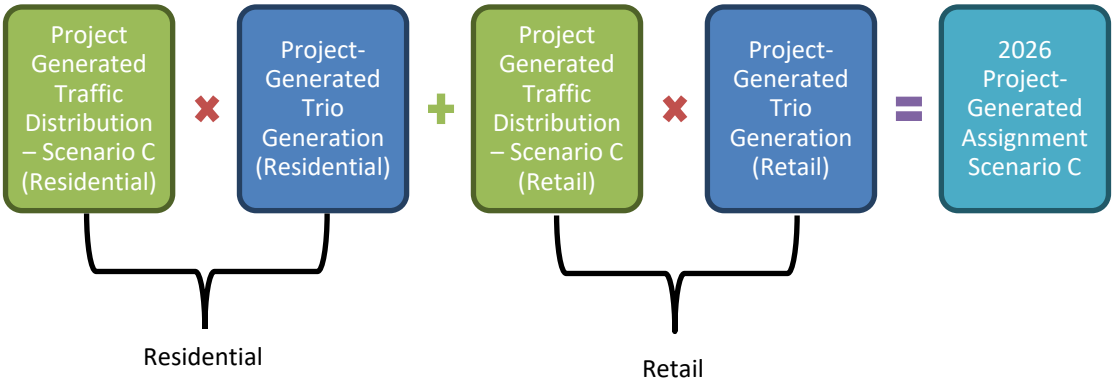
Sidewalks are proposed throughout the development. Adjacent access to transit is provided at South Boulder Road and Main Street.

5.4 Project-Generated Traffic Assignment

When the anticipated project trip generation (**Table 8**) is applied for the anticipated retail and residential distributions, the result is the new anticipated traffic assignment for the proposed Coal Creek Village. Traffic assignment for each analysis scenario is a combination of the residential and retail trip generation and directional distribution.

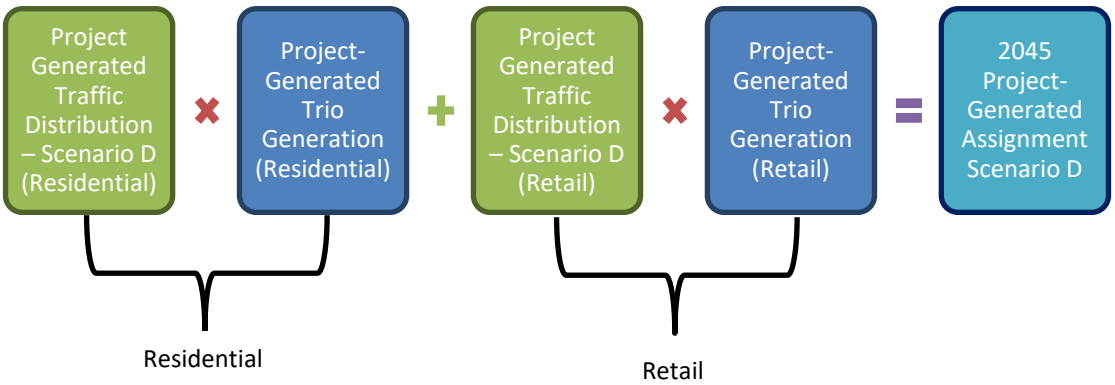
For instance, for Scenario C (Year 2026 Total Traffic), the anticipated 2026 vehicular traffic assignment (**Figure 7**) is the result of applying the anticipated trip generation (**Table 8**) to the residential distribution (Error! Reference source not found.) and the retail distribution (Error! Reference source not found.). The resulting 2026 project-generated assignment is depicted in **Figure 13**.

Figure 7: Year 2026 Project-Generated Traffic Assignment (Scenario C)



The 2045 traffic assignment is calculated similarly as described in **Figure 8**. The resulting 2045 project-generated assignment is depicted in **Figure 16**.

Figure 8: Year 2045 Project-Generated Traffic Assignment (Scenario D)



5.5 Travel Route Adjustments for Modified Access Scenarios

As detailed in **Section 4.3**, modifications to the allowed turning movements at the analysis intersections and future construction of a traffic signal at SH 42 and Griffith Street will impact the travel routes of both existing and future traffic. Specific modifications for each applicable scenario are included in the **Appendix**.

5.6 Total Traffic

The forecasted Year 2026 and Year 2045 total traffic is the combination of the background traffic forecasts with Coal Creek Village's anticipated traffic assignment, and travel route adjustments for that scenario.

Figure 9: Year 2026 Total Traffic – Schematic Diagram

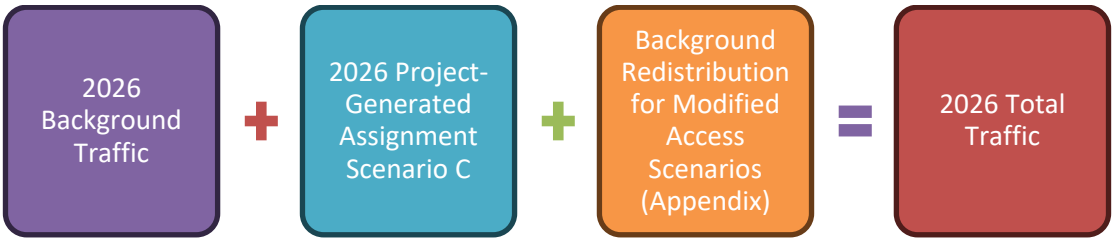


Figure 10: Year 2045 Total Traffic – Schematic Diagram

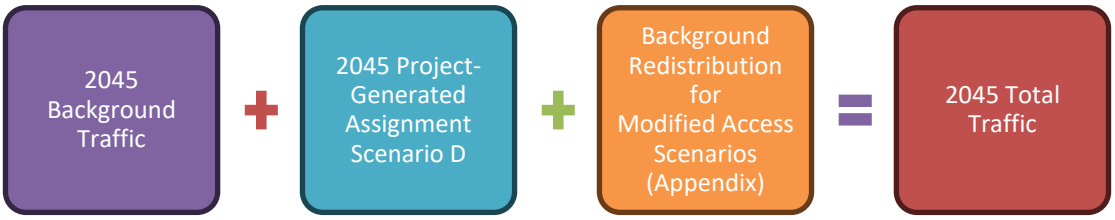
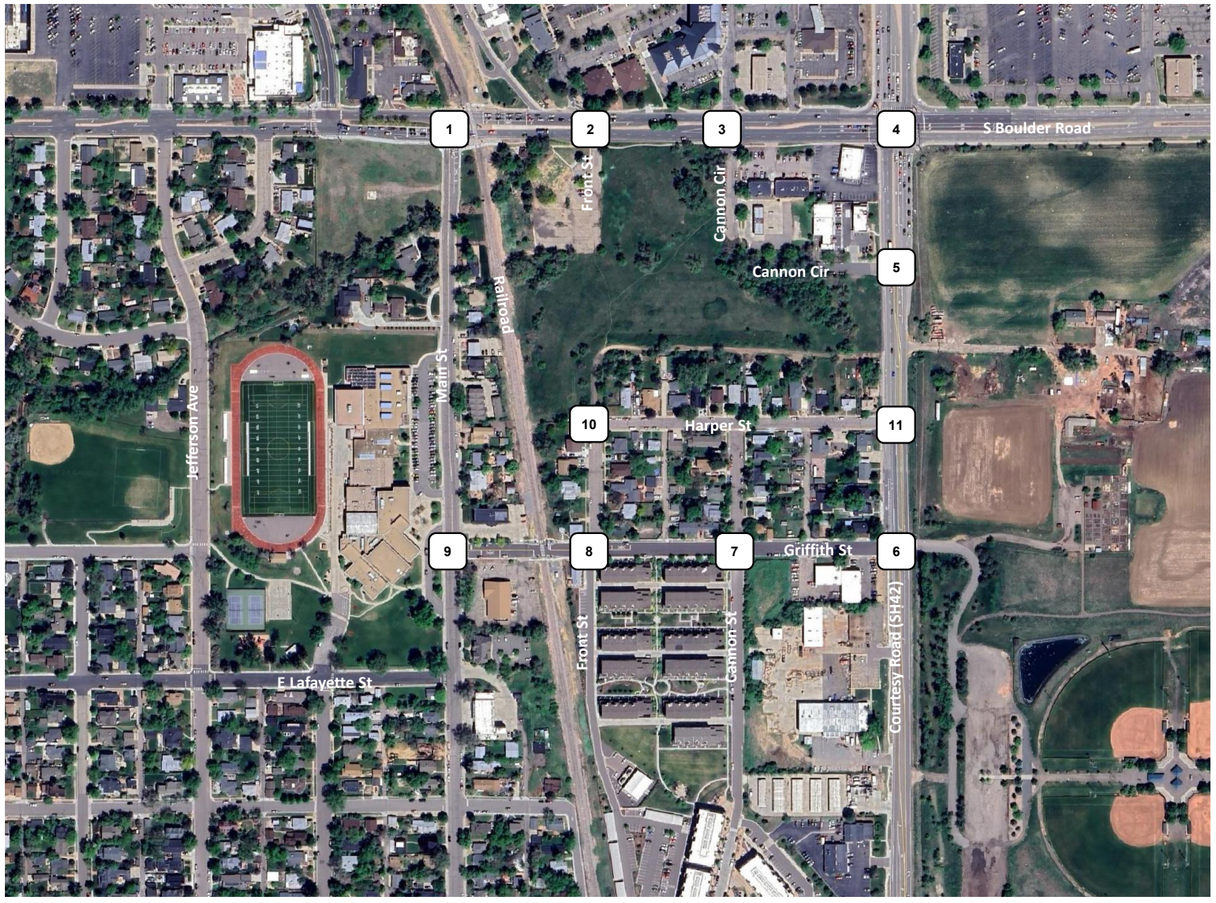
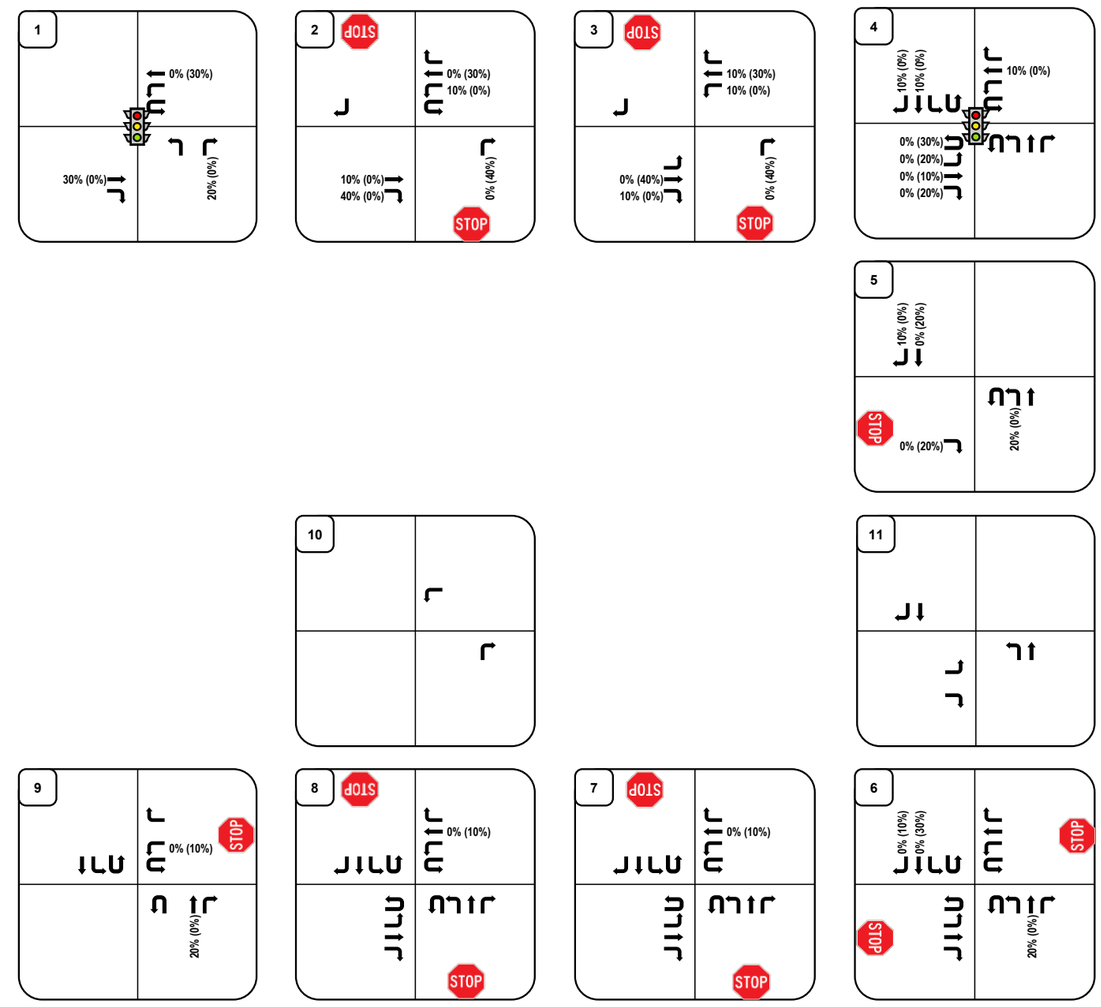


Figure 11: Project Generated Traffic Distribution - Scenario C (Residential)





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LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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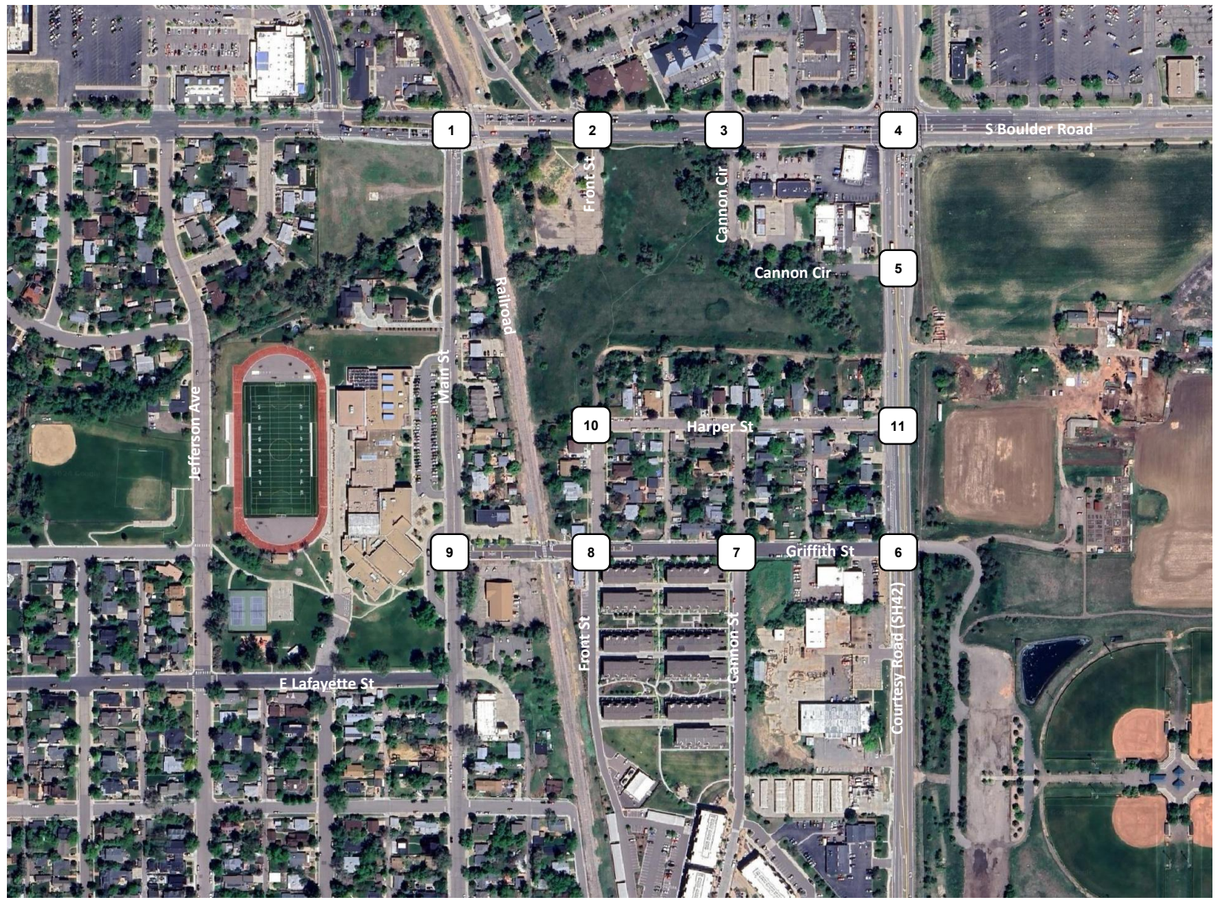
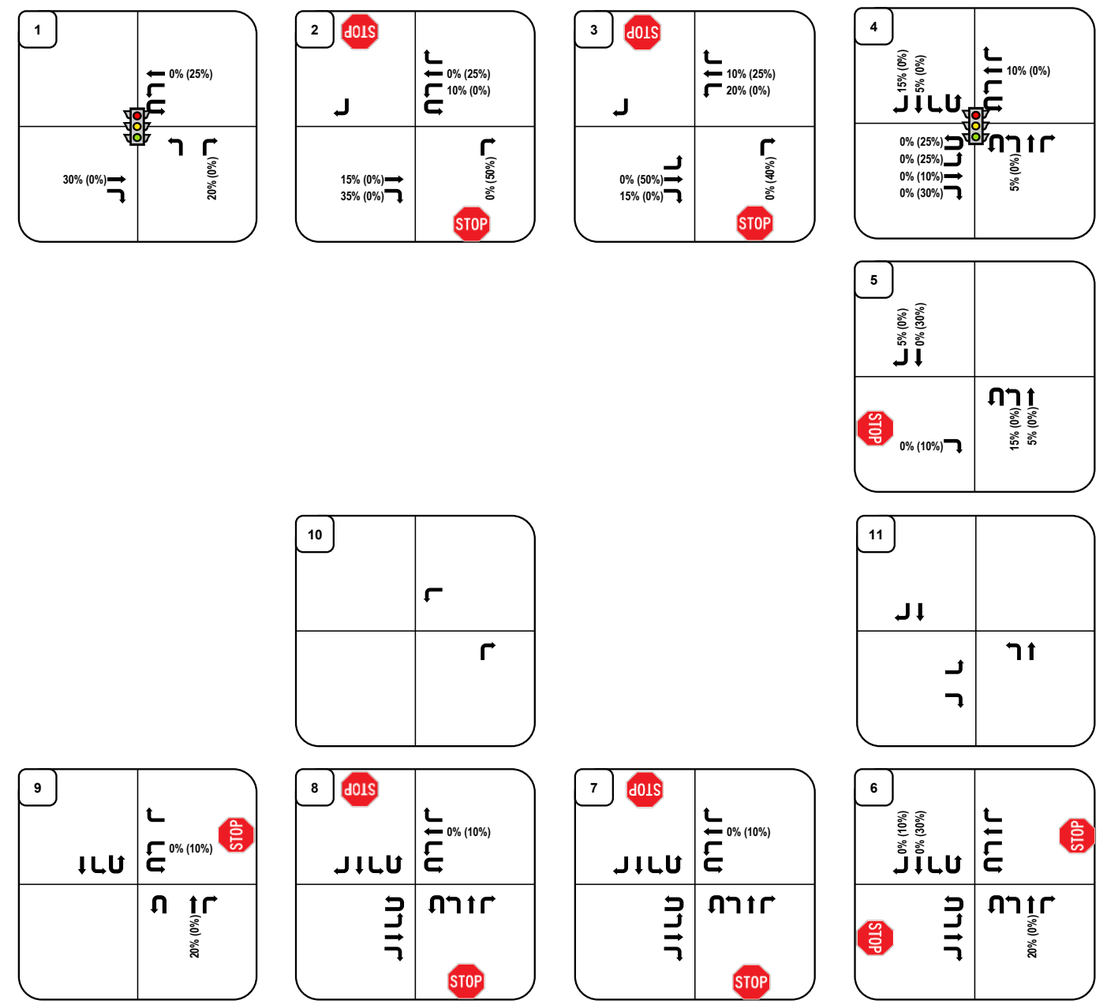
Figure 12: Project Generated Traffic Distribution - Scenario C (Retail)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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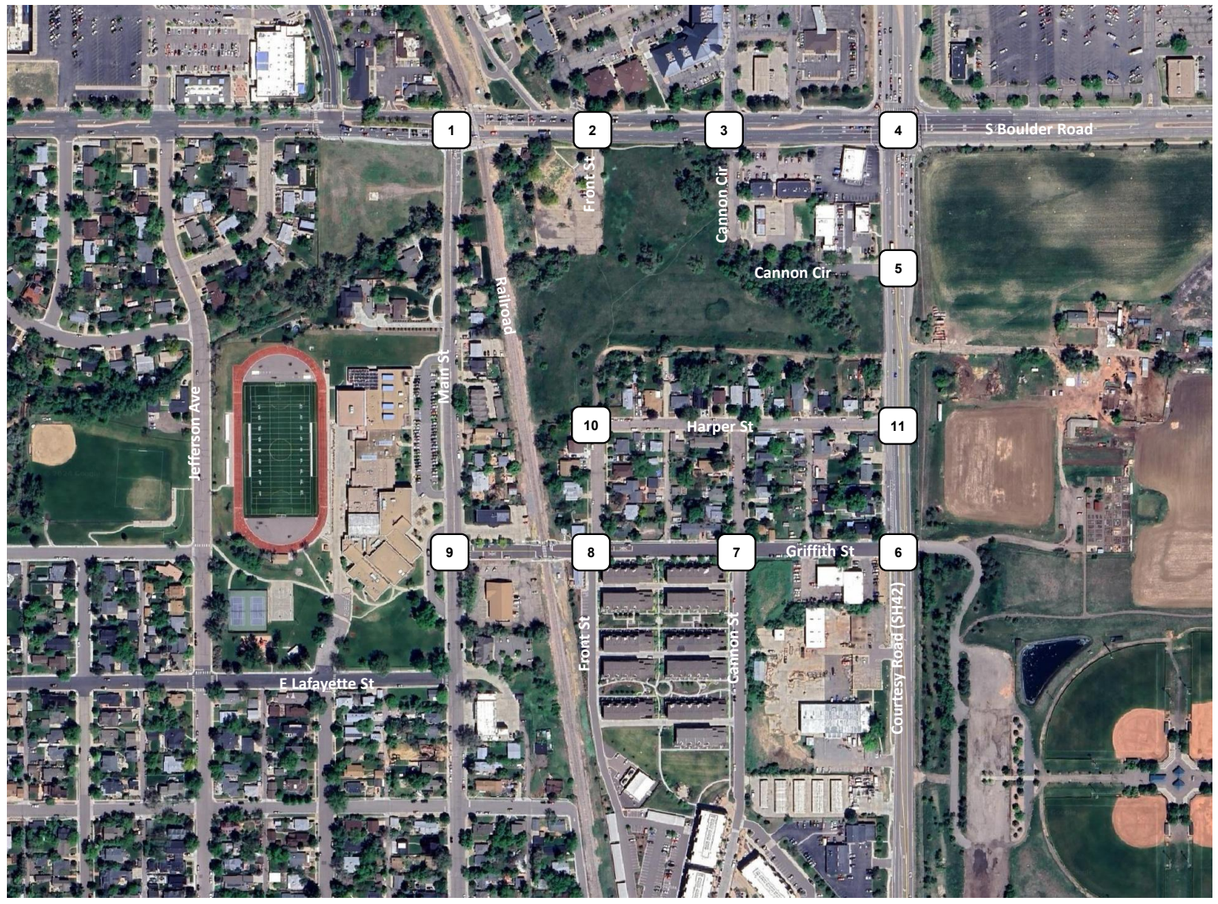
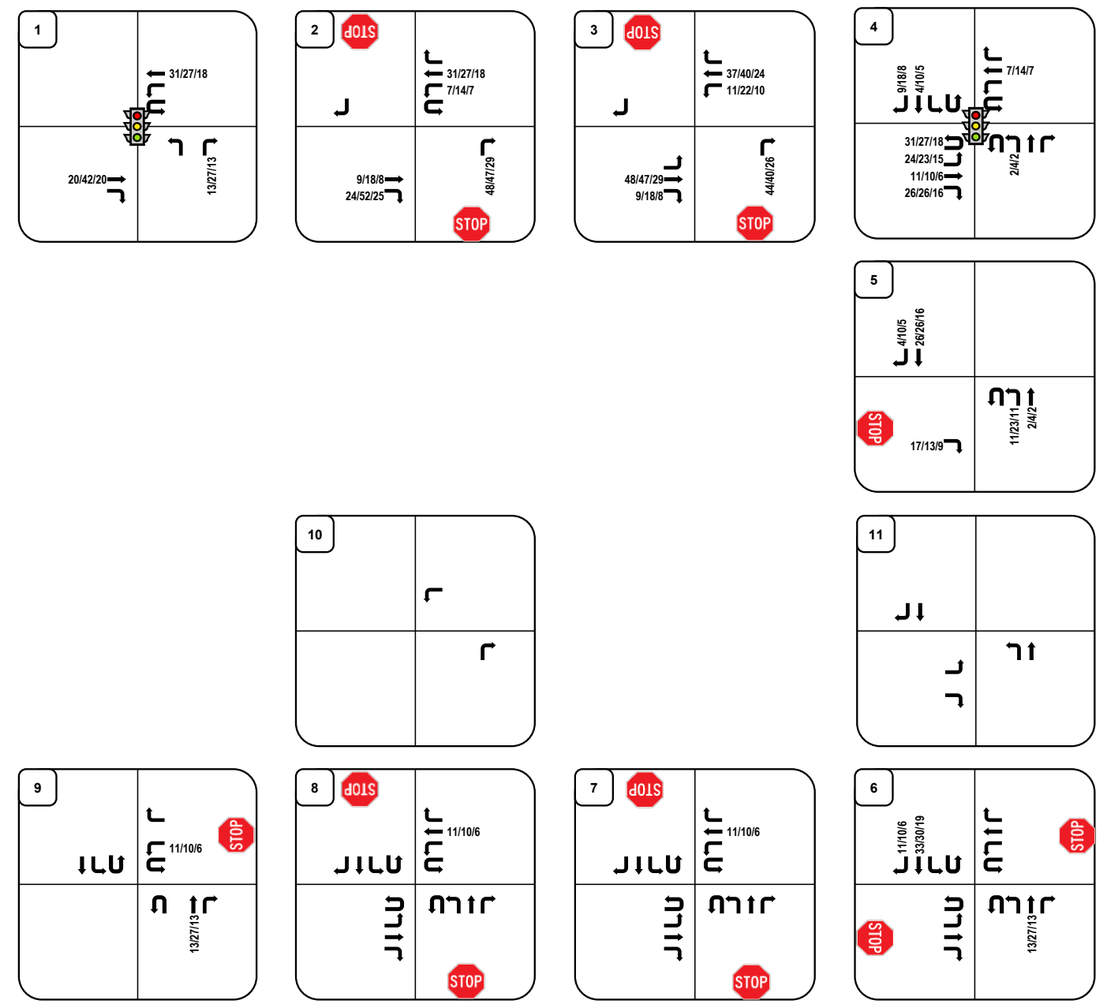
Figure 13: Project Generated Traffic Assignment - Scenario C (Residential & Retail)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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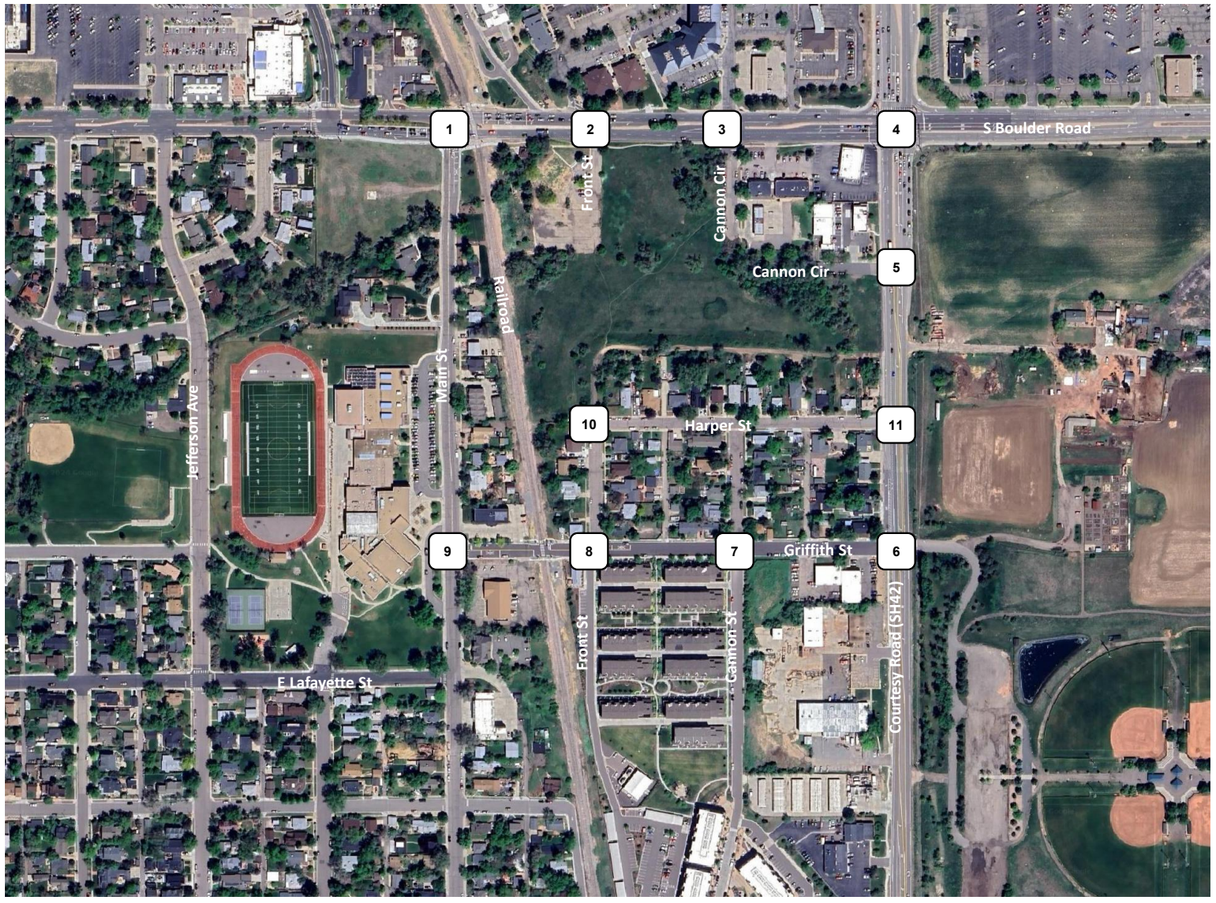
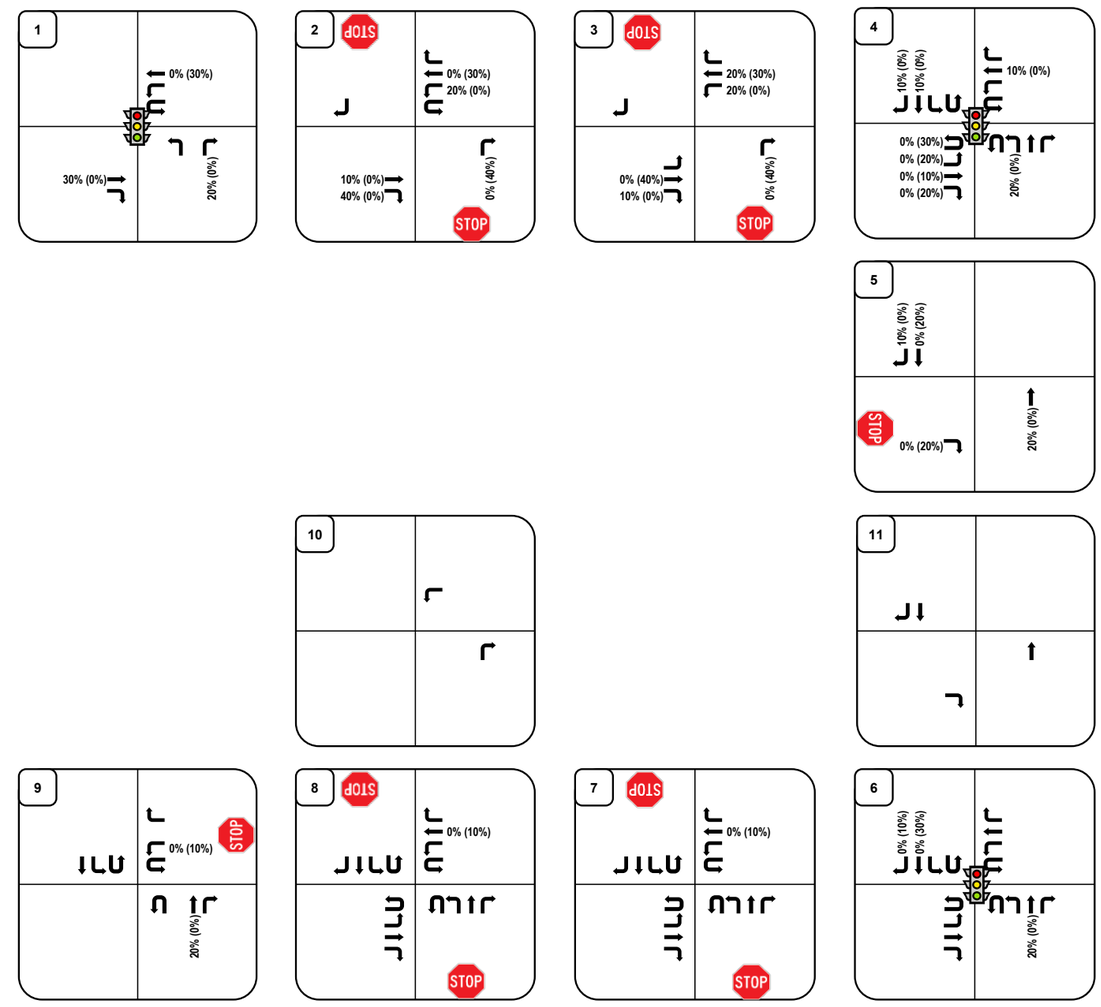
Figure 14: Project Generated Traffic Distribution - Scenario D (Residential)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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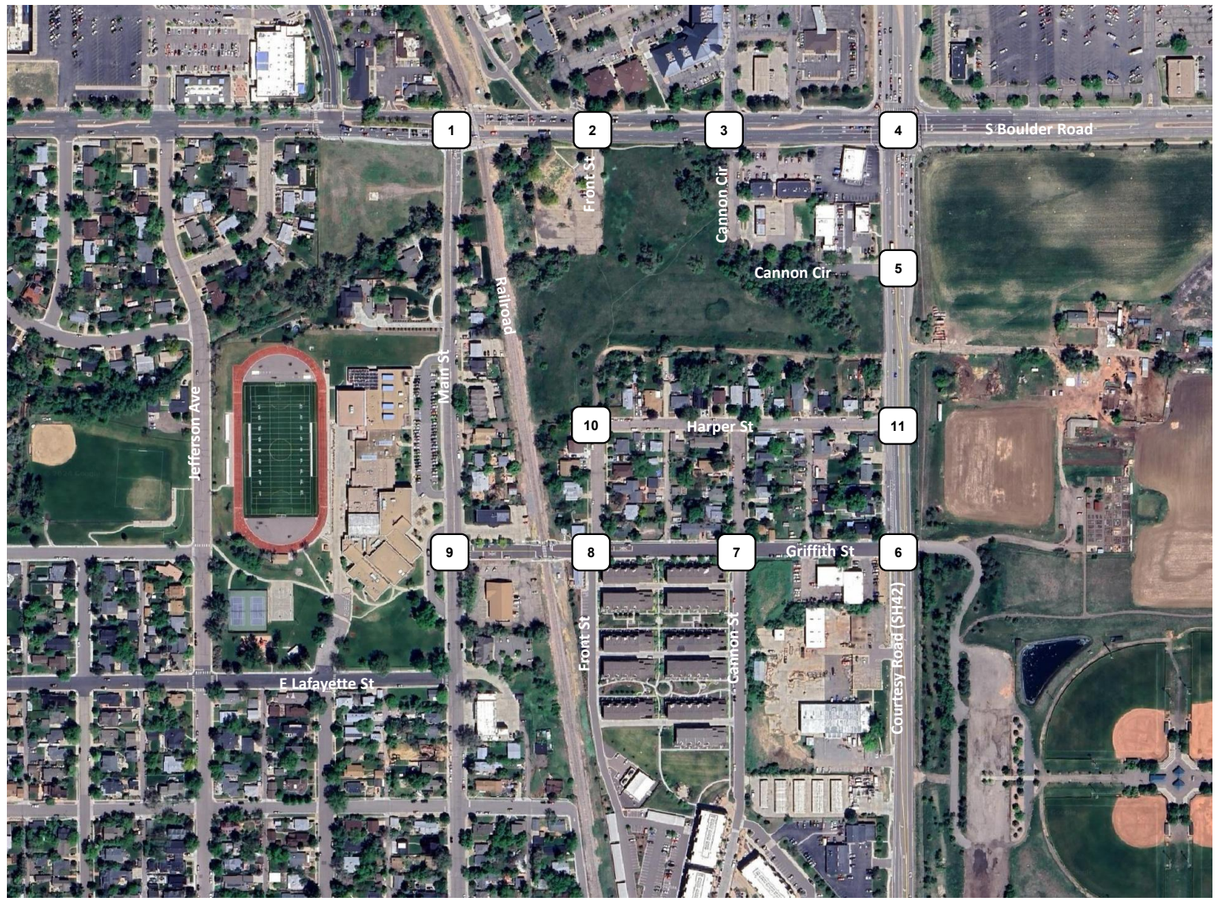
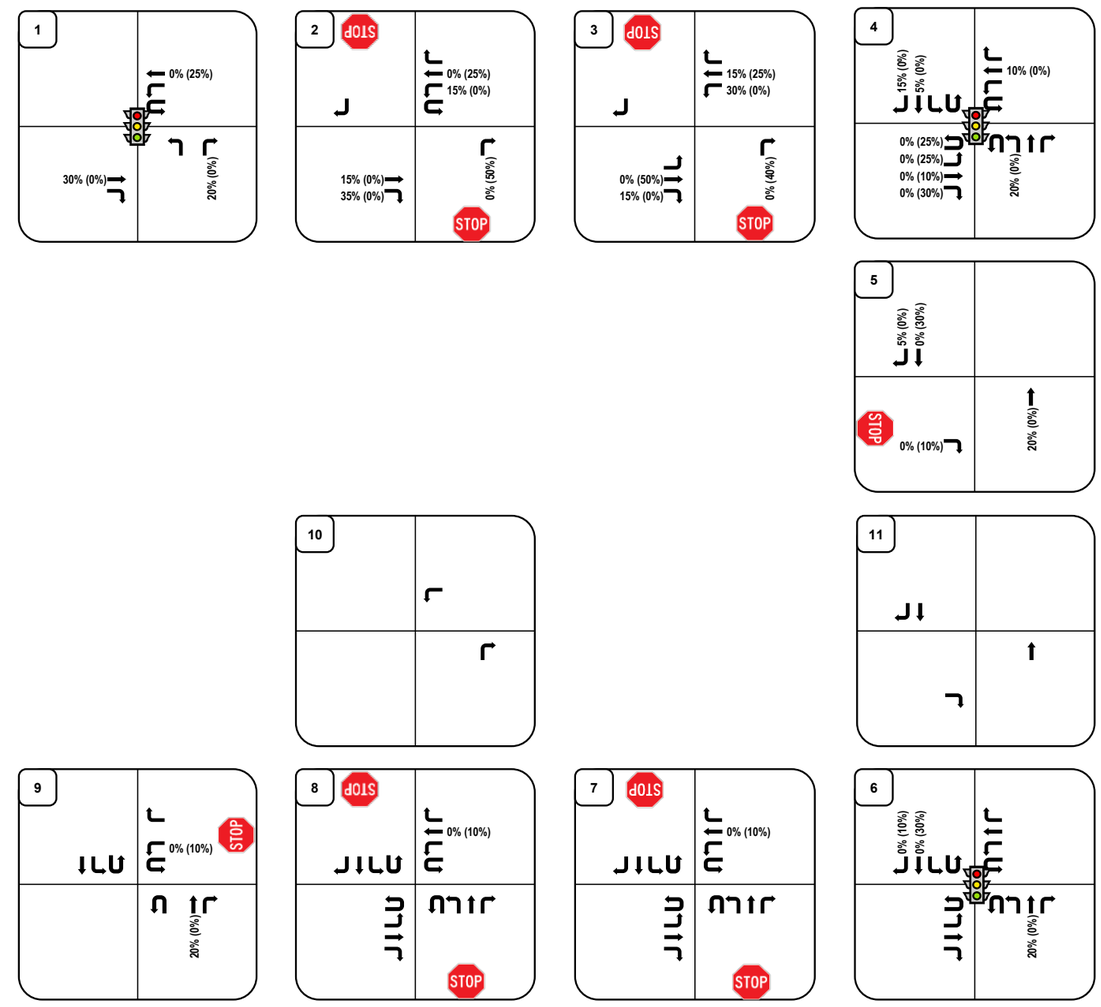
Figure 15: Project Generated Traffic Distribution - Scenario D (Retail)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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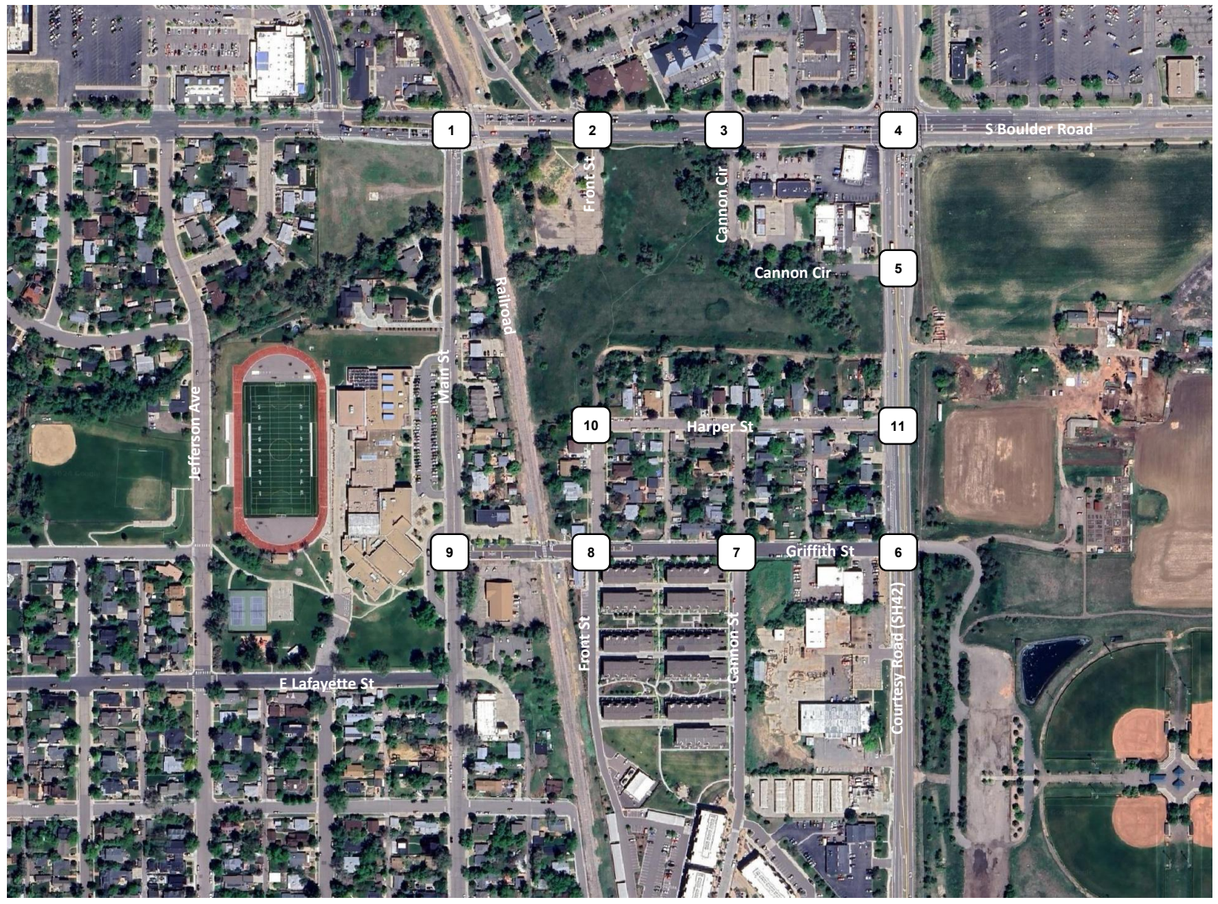
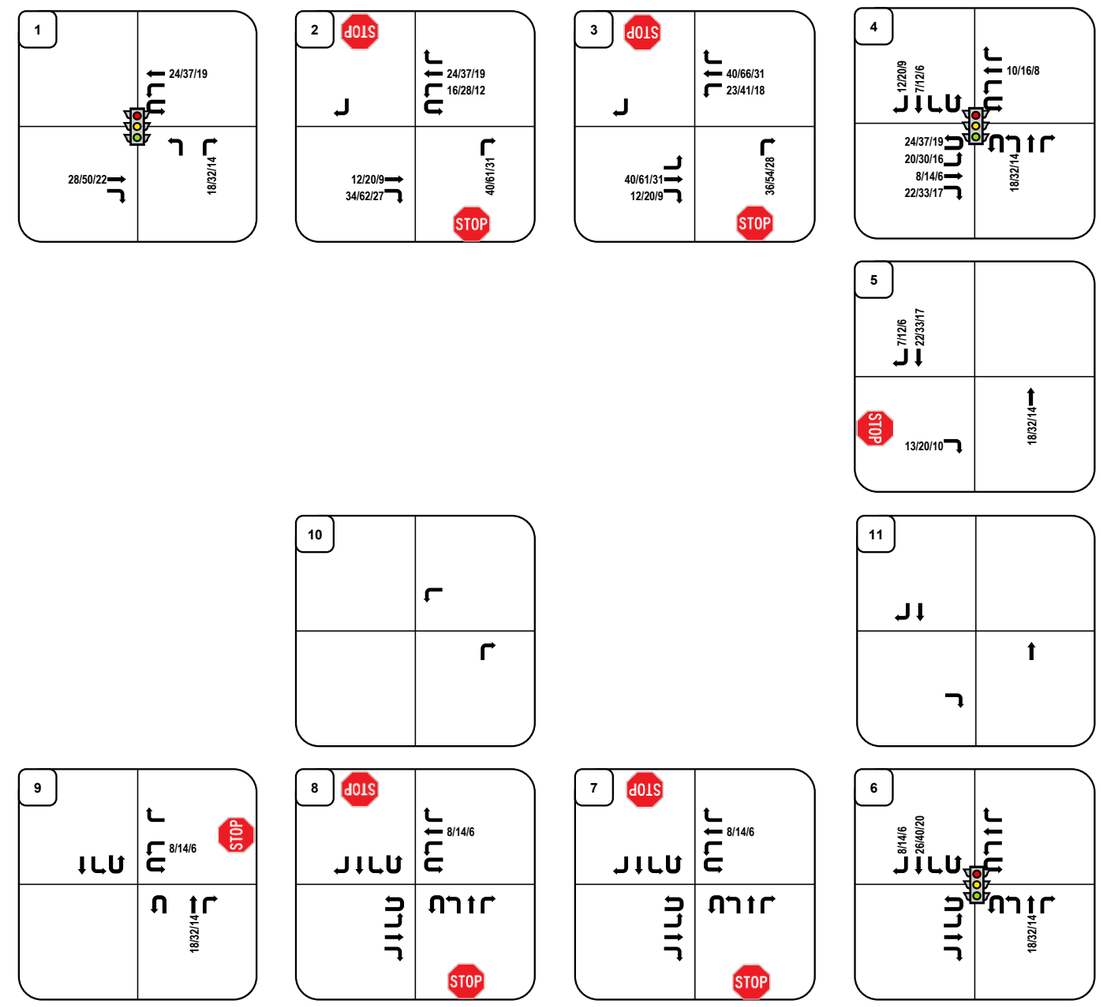
Figure 16: Project Generated Traffic Assignment - Scenario D (Residential & Retail)





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LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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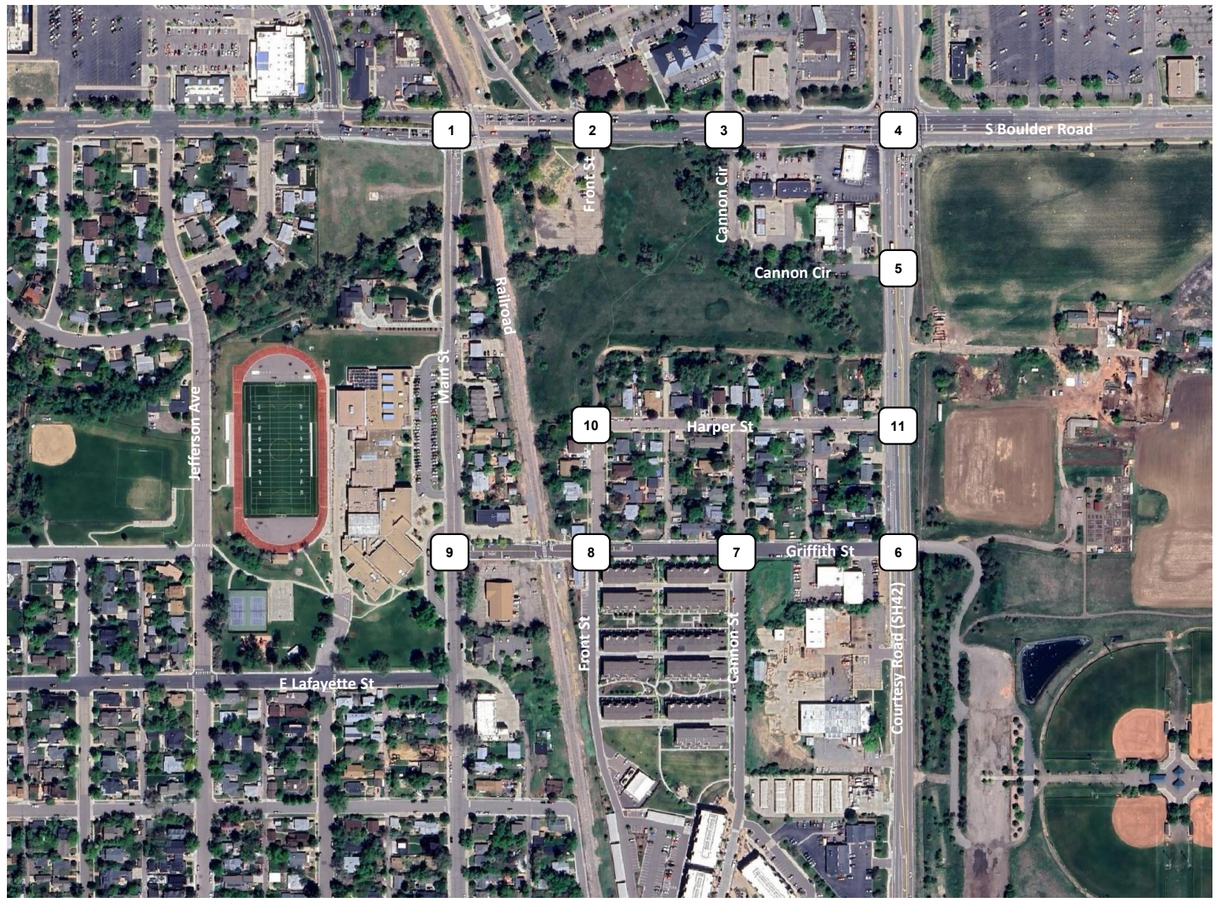
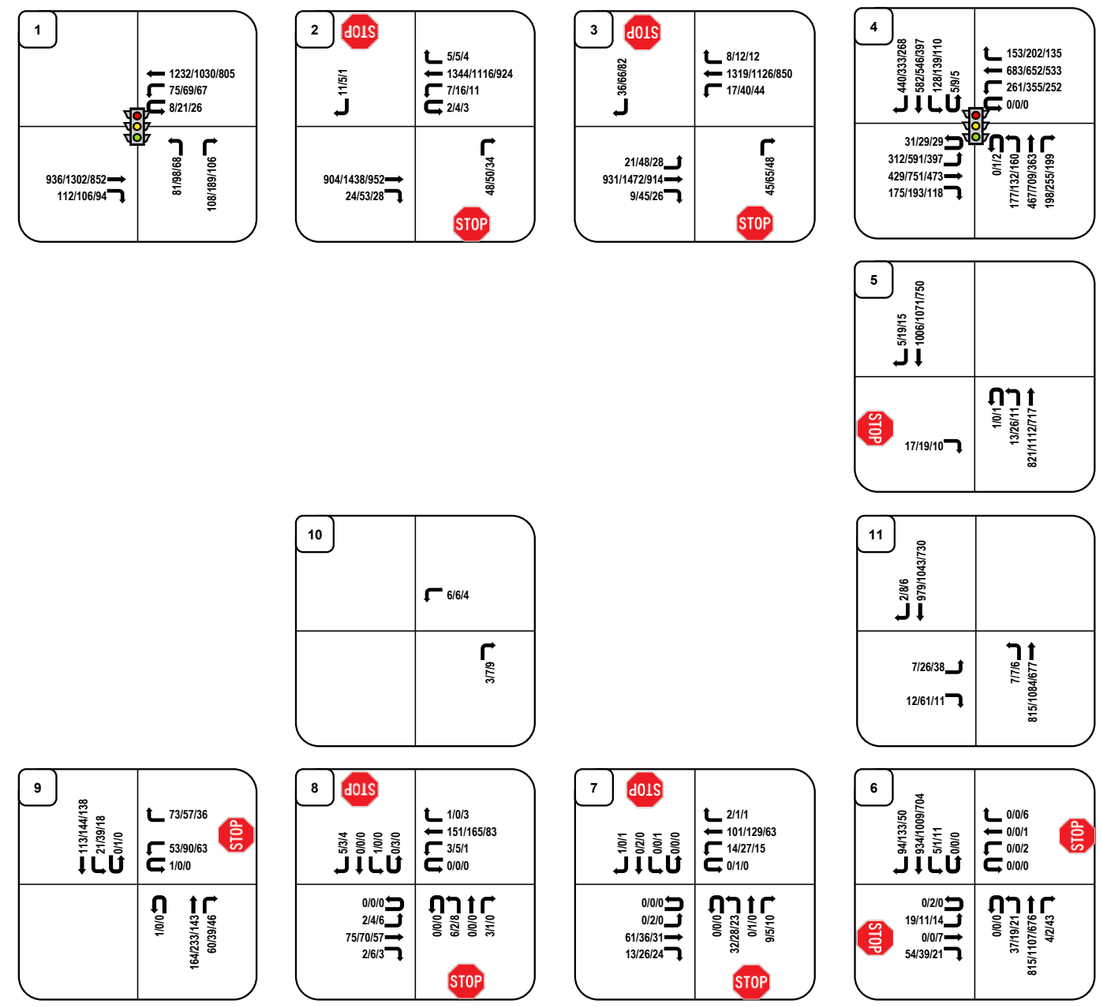
Figure 17: Year 2026 Total Traffic (Without Front St Connection)





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LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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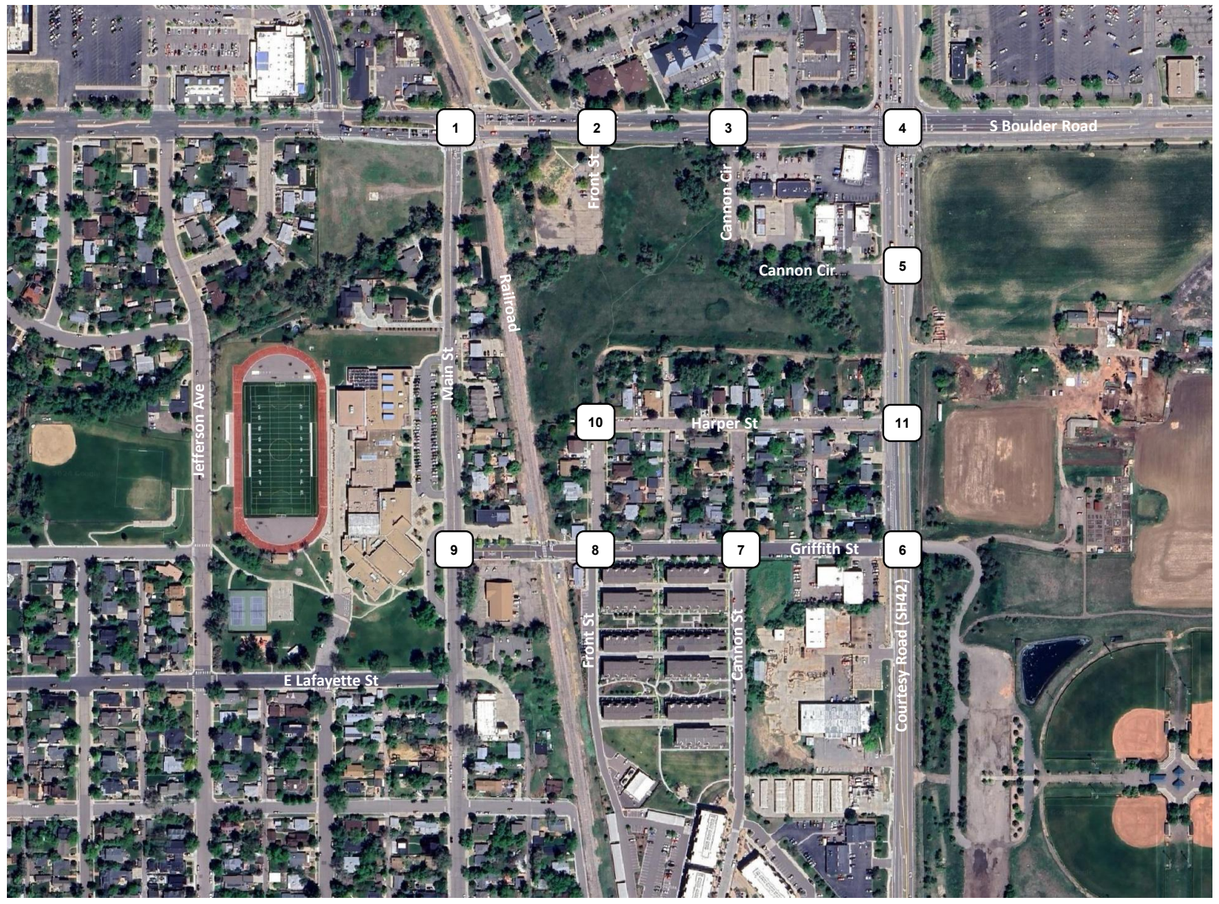
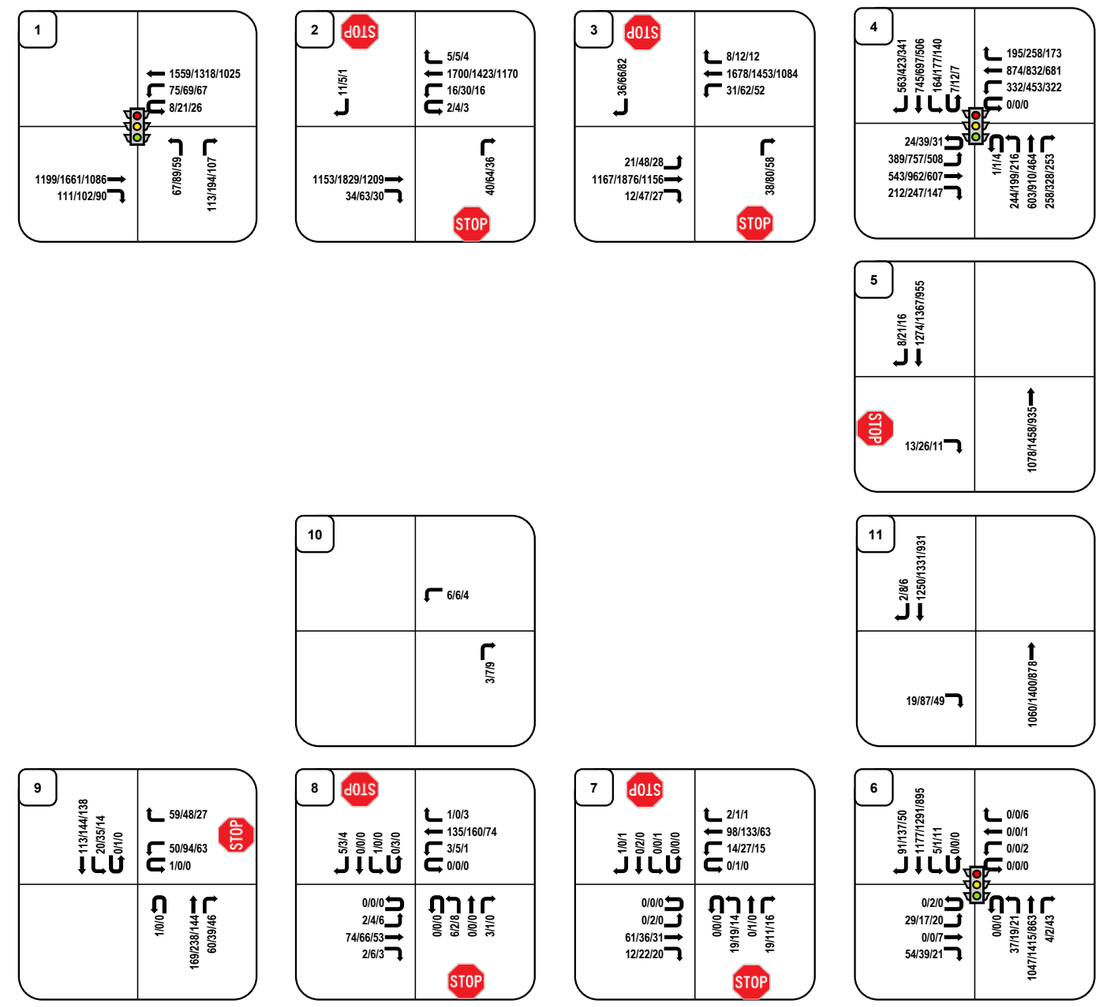
Figure 18: Year 2045 Total Traffic (Without Front St Connection)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

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6.0 Transportation Impact Analysis

6.1 Total Traffic Level of Service

An *HCM* analysis of total traffic conditions was performed for the proposed site access under both short-term Year 2026 and long-term Year 2045 traffic conditions. Results can be seen in **Table 9**.The Synchro reports for the total traffic level of service analysis can be found in the **Appendix**.

Intersection #1 - South Boulder Road and Main Street Intersection: This 3-legged intersection is signalized. The signal is coordinated with the BNSF Railroad crossing that is located on the eastern leg of the intersection.

With the addition of project-generated traffic, the operations on Main Street will slightly degrade.

The City's proposed future pedestrian underpass of South Boulder Road should allow for better signal timing at this intersection. It is recommended that the City update the corridor's signal timing plans every five years. The future pedestrian underpass will increase the mainline efficiency by eliminating pedestrian signal calls.

Intersection #2 - South Boulder Road and Front Street Intersection: This unsignalized intersection is anticipated to operate at an acceptable overall intersection LOS through Year 2045 total traffic conditions.

With the construction of Coal Creek Village, the westbound left turn lane is anticipated to operate at a LOS D or better through Year 2045. Total traffic conditions have less opposing traffic for this movement and more traffic making the northbound right movement. Therefore, the northbound LOS result is higher than that of background traffic with a lower northbound volume.

As South Boulder Road traffic continues to increase over time, the City should observe the corridor for necessary access control revisions.

Intersection #3 - South Boulder Road and Cannon Circle intersection: This full-movement intersection serves a commercial driveway to the north and Cannon Circle to the south.

A Synchro HCM analysis was conducted to analyze when the access restricted was recommended for implementation. This analysis kept the current full northbound movement (allowing the left, through, and right northbound movements). This analysis demonstrated that a 95th percentile queue length of nine vehicles, as well as a LOS F delay in excess of 300 seconds would occur. Therefore, McDowell Engineering recommends that this access is restricted at the time of development.

With the recommended access restriction, eastbound and westbound left turns will still be permitted. The eastbound and westbound left turns are anticipated to be able to use the gaps in South Boulder traffic created by the adjacent traffic signal during peak hours. These movements are anticipated to experience a LOS D or better. This is a better LOS than background operations due to the elimination of the difficult through and left turns from the side streets.

With the implementation of the access restriction, there is anticipated to be an increase in the eastbound U-turn movements on South Boulder Road. This includes a weave movement from the northern site accesses to the eastbound left turn lane at the signalized intersection.

The City is considering keeping the full movement access at this intersection and implementing the ¾ movement access when required by traffic operations in the future.

Intersection #4 - South Boulder Road and SH 42 intersection: This is a full-movement, signalized intersection. The *Future 42* plan depicts intersection improvements that include northbound and eastbound channelized right turn lanes. The Year 2045 total traffic scenario is modeled assuming the westbound and southbound right turn lanes are constructed. Even with these future improvements, this intersection has movements that are anticipated to operate at a failing LOS F for both Year 2026 and Year 2045 background and total traffic conditions.

This intersection has below acceptable LOS due to the high traffic volumes it handles. The current traffic volumes are too high to be flushed out of the intersection within one cycle during peak traffic hours. This causes vehicles to wait in queues for more than one cycle. LOS on the north and south legs of SH 42 are slightly better than on the South Boulder Road's east and west legs. This is due to CDOT's prioritization of SH 42 and giving the highway more green time.

The addition of Coal Creek Village traffic can anticipate slightly lower LOS from the background traffic conditions. There is anticipated to be a significant weave movement from project traffic egressing the site to access the eastbound left turn lane at the SH 42 traffic signal. Additional eastbound to westbound U-turn volume at the signal is also anticipated due to the site's access restrictions on South Boulder Road.

Intersection #5 - SH 42 and Cannon Circle intersection: This is a full-movement "T" intersection. With the buildout of Coal Creek Village, this intersection will be restricted to a ¾ movement, with left turns out of the site restricted. With the restriction of this difficult movement, Year 2026 total traffic operations are anticipated to be LOS B or better with or without the Front Street connection.

Per the *Future 42* Plan, The City desires to restrict access to right-in, right-out only (RIRO) movements in the future with the signalization of Intersection #6 SH 42 and Griffith Street. Therefore, Year 2045 total traffic scenarios are anticipated to improve to LOS C or better.

Intersection #6 - SH 42 and Griffith Street intersection: This is a full-movement intersection. With the buildout of Coal Creek Village, short-term Year 2026 total traffic operations are anticipated to continue to degrade. SH 42 is anticipated to continue to operate at a LOS B or better. Side street traffic is anticipated to continue to operate at a LOS F with or without the project-generated traffic.

Signalization of the SH 42 and Griffith Street intersection will improve the side street LOS to an acceptable LOS C in Year 2045 total traffic conditions. Mainline SH 42 is likely to degrade to a lower LOS E with the additional delay caused by the signal construction.

Intersection #7 – Griffith Street and Cannon Street intersection: This is a full-movement intersection with stop-control on the north and south legs. With the buildout of Coal Creek Village, operations are anticipated to remain acceptable LOS A or B through Year 2045 total traffic conditions. The additional traffic is anticipated to have a nominal impact on the intersection delay.

Intersection #8 – Griffith Street and Front Street intersection: This is a full-movement intersection with stop-control on the north and south legs. With the buildout of Coal Creek Village, operations are anticipated to remain acceptable LOS A or B through long-term total traffic conditions.

Intersection #9 – Griffith Street and Main Street intersection: This is a full-movement "T" intersection. The east leg is stop-controlled.

With the buildout of Coal Creek Village, operations are anticipated to remain acceptable through long-term total traffic conditions. Main Street will continue to operate at an acceptable LOS A through Year 2045 total traffic conditions. The east leg is anticipated to operate at LOS C during the morning peak hour through Year 2045 total traffic conditions.

These results are comparable to the anticipated operations with or without the addition of the Coal Creek Village traffic. The additional traffic is anticipated to have a nominal impact on the intersection delay.

Intersection #10 – Front Street and Harper Street intersection: This is a free-flowing intersection. All analysis scenarios assume no change in the current configuration to the public street. The developer will construct a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is

permitted. Therefore, this intersection is anticipated to continue to operate at a LOS A through Year 2045 total traffic conditions.

Intersection #11 – SH 42 and Harper Street intersection: Both with and without the construction of Coal Creek Village, left turns at this intersection currently experience delay into and out of the site during peak traffic on SH 42. Currently, through movements on SH 42 are operating at LOS A. Eastbound Harper Street is operating at LOS F during the evening peak hour.

Per the *Future 42* Plan, the Harper Street access will be restricted to right-in, right-out movements by the Year 2045 total traffic conditions. With this scenario, the eastbound movement is anticipated to improve to a LOS C.

Table 9: Total Traffic LOS

#	Intersection	Traffic Control	Approach	Year 2026 Total without Front Street Level of Service (Delay in Seconds)			Year 2045 Total without Front Street Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
1	South Boulder Road & Main Street	Signal	EBT	A (8.0)	A (9.7)	A (6.8)	A (9.2)	B (13.6)	A (7.5)
			EBR	A (1.4)	A (2.4)	A (1.4)	A (2.3)	A (3.3)	A (1.5)
			WBL	A (5.0)	A (8.4)	A (3.2)	A (4.7)	B (11.6)	A (3.2)
			WBT	A (5.5)	A (6.1)	A (3.1)	A (6.8)	A (7.7)	A (3.3)
			NBL	D (55.0)	E (59.9)	D (47.5)	D (53.1)	E (55.1)	D (47.0)
			NBR	B (13.9)	D (38.7)	B (14.4)	B (14.0)	E (55.7)	B (15.0)
2	South Boulder Road & Front Street	3/4, NB/SB Stop	WBL	B (11.9)	C (19.5)	B (12.3)	B (13.4)	D (29.7)	B (14.6)
			NB	B (13.0)	C (18.3)	B (13.1)	B (14.8)	D (26.6)	C (15.2)
			SB	C (15.6)	B (13.6)	B (12.3)	C (19.5)	C (16.2)	B (13.9)
3	South Boulder Road & Cannon Circle	3/4 NB/SB Stop	EBL	C (17.4)	C (18.3)	B (13.2)	D (26.5)	D (31.2)	C (16.9)
			WBL	B (11.0)	C (17.4)	B (11.0)	B (12.7)	D (28.8)	B (13.0)
			NB	B (13.2)	C (20.3)	B (13.2)	B (15.0)	D (32.3)	C (15.6)
			SB	C (16.4)	C (15.4)	B (13.3)	C (21.0)	C (19.6)	C (15.5)
4	SH 42 (Courtesy Road) & South Boulder Road	Signal	EBL	F	F	F	F	F	F
			EBT	C (30.9)	D (52.9)*	C (25.8)	C (29.6)	D (42.6)*	C (26.2)
			EBR	-	-	-	B (11.9)	A (9.6)	A (2.6)
			WBL	E (61.5)	F (109.4)*	E (75.6)*	E (65.1)*	F (167.8)*	F (99.5)*
			WBT	D (42.8)	D (48.1)	C (33.8)	D (49.2)*	E (58.8)*	D (35.2)
			WBR	A (4.9)	A (7.8)	A (1.8)	A (8.5)	B (14.5)	A (3.7)
			NBL	E (63.3)	F (191.3)*	F (187.7)*	F (597.5)*	F (421.6)*	F (356.1)*
			NBT	C (32.6)	E (76.8)*	C (26.6)	D (35.5)	D (48.6)*	C (25.0)
			NBR	-	-	-	A (9.4)	B (12.1)	A (7.4)
			SBL	F (193.3)*	F (240.4)*	F (94.1)*	F (321.4)*	F (372.3)*	F (152.0)*
			SBT	D (37.1)	D (38.8)	C (29.3)	D (39.4)	D (40.6)	C (29.2)
			SBR	C (27.1)	A (8.8)	A (6.9)	D (45.7)	B (19.9)	B (12.5)

* Indicates LOS F with volume exceeding capacity (delays in seconds likely not accurate due to modelling method limitations)

Table 10: Total Traffic LOS (Continued)

#	Intersection	Traffic Control	Approach	Year 2026 Total without Front Street Level of Service (Delay in Seconds)			Year 2045 Total without Front Street Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
5	SH 42 (Courtesy Rd) & Cannon Circle	EB Stop	EB	B (12.9)	B (13.5)	B (11.3)	B (14.9)	C (16.3)	B (12.5)
			NBL	B (11.7)	B (11.5)	B (10.2)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	EB/WB Stop	EB	F (85.8)	F (110.3)	E (41.9)	-	-	-
			WB	A (0.0)	A (0.0)	D (27.3)	-	-	-
			NB	A (0.5)	A (0.2)	A (0.3)	-	-	-
			SB	A (0.0)	A (0.0)	A (0.1)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	Signal	EBL	-	-	-	C (26.7)	C (24.9)	C (20.4)
			EBT	-	-	-	A (0.7)	A (0.5)	B (11.0)
			WBL	-	-	-	C (24.0)	C (24.0)	B (18.5)
			WBT	-	-	-	C (21.0)	C (21.0)	B (13.3)
			NBL	-	-	-	C (26.5)	C (25.1)	B (17.7)
			NBT	-	-	-	A (3.9)	A (5.0)	A (4.8)
			SBL	-	-	-	C (29.0)	C (32.0)	B (17.8)
			SBT	-	-	-	A (4.4)	A (5.2)	A (4.7)
			SBR	-	-	-	A (0.6)	A (1.7)	A (0.8)
7	Griffith Street & Cannon Street	NB/SB Stop	EB	A (0.0)	A (0.2)	A (0.0)	A (0.0)	A (0.3)	A (0.0)
			WB	A (0.9)	A (0.0)	A (1.4)	A (0.9)	A (0.0)	A (1.4)
			NB	A (10.0)	B (10.4)	A (9.4)	A (9.6)	A (10.0)	A (9.2)
			SB	A (8.9)	B (10.8)	A (9.2)	A (8.9)	B (10.8)	A (9.2)
8	Griffith Street & Front Street	NB/SB Stop	EB	A (0.2)	A (0.4)	A (0.7)	A (0.2)	A (0.4)	A (0.7)
			WB	A (0.1)	A (0.2)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
			NB	A (10.0)	A (10.0)	A (9.8)	A (9.9)	A (10.0)	A (9.7)
			SB	A (9.4)	A (9.3)	A (8.8)	A (9.3)	A (9.3)	A (8.8)
9	Griffith Street & Main Street	WB Stop	WB	B (14.4)	B (13.6)	B (11.6)	B (14.0)	B (13.7)	B (11.5)
			SB	A (1.3)	A (0.0)	A (0.9)	A (1.2)	A (0.0)	A (0.7)
10	Harper Street & Front Street	None	WB	-	-	-	-	-	-
			SB	-	-	-	-	-	-
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	EB	D (33.7)	F (118.0)	E (40.9)	B (14.7)	C (18.2)	B (12.9)
			NBL	B (10.4)	B (10.7)	A (9.3)	-	-	-

* Indicates LOS F with volume exceeding capacity (delays in seconds likely not accurate due to modelling method limitations)

6.2 Intersection Queues

Synchro's HCM modeling software was used to analyze intersection operations, including estimated 95th Percentile Queues for each scenario. A table detailing the traffic queues is included in the **Appendix**.

Intersection #1 - South Boulder Road and Main Street Intersection: This signalized intersection has excessive queues. The eastbound queues are anticipated to back up past Centennial Drive. Westbound queues can reach Steele Street. Northbound queues can exceed 500 feet but are rarely anticipated to impact the private driveway to the south of the signal.

Train crossing events will increase these anticipated queues.

The City's proposed future pedestrian underpass of South Boulder Road should allow for better signal timing at this intersection. It is recommended that the City update the corridor's signal timing plans every five years. The future pedestrian underpass will increase mainline efficiency by eliminating pedestrian signal calls.

Intersection #2 - South Boulder Road and Front Street Intersection: Intersection queues are anticipated to be less than two vehicles. The queues are accommodated by existing infrastructure.

Intersection #3 - South Boulder Road and Cannon Circle intersection: This intersection is currently experiencing a 75 feet northbound queue and 250 feet southbound queues. With Coal Creek Village's conversion of this access to ¾ movement, the left turn is restricted and all queues are anticipated to be less than two vehicles.

Intersection #4 - South Boulder Road and SH 42 intersection: Existing conditions at this signal are currently experiencing left turn movement volumes that exceed the intersection's capacity.

Currently, eastbound queues reach 350 feet. In the future, it is anticipated that the queues could reach 750 feet. The westbound left queue is anticipated to reach approximately 550 feet.

The northbound queue is anticipated to reach 500 feet during evening peak traffic. Southbound queues are anticipated to reach 500 feet during the morning peak hour.

The *Future 42* plan depicts intersection improvements that include northbound and eastbound channelized right turn lanes that will improve operations at the intersection.

Intersection #5 - SH 42 and Cannon Circle intersection: All queues are anticipated to be less than one vehicle.

Intersection #6 - SH 42 and Griffith Street intersection: This is a stop-controlled, full-movement intersection. The eastbound queue reaches five vehicles during the evening peak hour.

Signalization of the SH 42 and Griffith Street intersection will improve the side street queues. The added mainline delay on SH 42 will create a queue of 275 feet for the northbound left turn during the evening peak hour. Dependent upon the signal timing implemented when the signal is constructed, the queue associated with the Louisville Sports Complex could reach 250 feet.

Intersection #7 – Griffith Street and Cannon Street intersection: With all scenarios, the northbound queue is anticipated to be less than one vehicle.

Intersection #8 – Griffith Street and Front Street intersection: The southbound queue is anticipated to be minimal.

Intersection #9 – Griffith Street and Main Street intersection: The southbound left turn can anticipate a queue of less than one vehicle in normal scenarios. During school pick up and drop off or train crossings, the queues can be anticipated to be longer. Refer to the additional train analysis in **Section 6.7**.

Intersection #10 – Front Street and Harper Street intersection: There is no queueing at this movement, as it operates as a through movement with no stop-control.

Intersection #11 – SH 42 and Harper Street intersection: Under current conditions, queues are anticipated for the eastbound left movement. With the Future 42 access restriction implemented, the eastbound queue is anticipated to be less than one vehicle.

6.3 Site Design and Traffic Circulation Evaluation

The proposed street configuration for Coal Creek Village provides good internal circulation and alternate routes to access adjacent arterial streets. Access restrictions will require that drivers wanting to go west on South Boulder Road or north on SH 42 may need to adjust their travel routes, as left turns out of the site are prohibited onto these two roadways.

Front Street Emergency/Pedestrian Access: Coal Creek Village will provide restricted emergency/pedestrian access from the site to Front Street. No public vehicular access will be allowed.

Cannon Circle Access: Cannon Circle will provide two of the accesses to the development. Cannon Circle is platted as an L-shaped City street. The north-south leg intersects South Boulder Road one block west of SH 42. The east-west leg intersects SH 42 one block south of South Boulder Road.

Canon Circle approaching SH 42 may require access restriction to the adjacent lot. There is a potential corner clearance problem with an existing driveway. The driveway on Cannon Circle to 1110 E South Boulder Road is about 20 feet south of the stop bar. If there are two or more northbound queued up at the stop sign, the southbound left turn into the driveway will be blocked. Someone waiting to make the left turn into the driveway could cause a backup that extends into the eastbound through lanes on South Boulder Road.

The City may want to implement a countermeasure. One option is to install a "Do Not Block Driveway" sign and appropriate lane markings. Another option is to construct a raised median on Cannon Circle, making the driveway a right-in/right-out access. This intersection may have movements restricted in the future at the direction of the City.

Northbound left turns onto South Boulder Road: The City is considering the restriction of the left turns from the side streets at the South Boulder Road and Cannon Circle intersection as mentioned in the *South Boulder Road Corridor Evaluation*. Per the analysis included in this report, McDowell Engineering recommends that the left turn and through movements are restricted at Cannon Street at the time of Coal Creek Village buildout. This can be accomplished with the construction of a raised center median at the intersection. The City is considering keeping the full movement access at this intersection and implementing the ¾ movement access when required by traffic operations in the future.

6.4 Turn Lane Requirements

The need for auxiliary turn lanes was assessed per the *State of Colorado State Highway Access Code*[10] *(Access Code)* for CDOT's SH 42. The City of Louisville *Design and Construction Standards* does not have turn lane requirements, so the *Access Code* requirements were compared to the 95th Percentile Queue lengths for the Year 2050 total traffic conditions and current site geometric constraints for the turning movements that are not on the State Highway system. Refer to **Table 11** below for the auxiliary turn lane recommendations and details.

[10] State of Colorado State Highway Access Code, 2002.

Table 11 - Auxiliary Turn Lane Requirements [1]

#	Intersection	Mvmt	Accel or Decel	Posted Speed Limit (MPH)	Road Jurisdiction/ CDOT Class	SHAC Trigger Volume (VPH)	Year 2024 Existing			Year 2026 BG			Year 2045 BG			Year 2026 Total			Year 2045 Total			Existing Turn Lane	Trigger Year & Condition
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT		
1	S. Boulder Road & Main Street	EBR	D	45	Local	N/A	109	99	87	112	106	94	111	102	90	112	106	94	111	102	90	120' + 90' Taper	95th Percentile Queue < 35'. Existing is adequate.
		WBL	D	45	Local	N/A	75	69	67	75	69	67	75	69	67	75	69	67	75	69	67	290' + 40' Bay Taper	95th Percentile Queue < 30'. Existing is adequate.
		NBL	D	25	Local	N/A	65	87	57	81	98	68	67	89	59	81	98	68	67	89	59	115' Lane	Queues of 205'. Approximately blocks 1 residential driveway.
		NBR	D	25	Local	N/A	95	162	93	95	162	93	95	162	93	108	189	106	113	194	107	115' + 75' Taper	Queues of 205'. Approximately blocks 1 residential driveway.
2	S. Boulder Road & Front Street	EBL	D		Local	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	
		EBR	D	45	Local	N/A	0	1	3	0	1	3	0	1	3	24	53	28	34	63	30	50' + 75' Taper	Assume NR-B Equivalent. 73vph. 75' storage + 10' lane @ 13.5:1 (135' taper). Need to extend turn lane.
		WBL	D	45	Local	N/A	0	2	4	0	2	4	0	2	4	7	16	11	16	30	16	90' + 75' Taper	Assume NR-B Equivalent. 30vph. 50' storage + 10' lane @ 13.5:1 (135' taper) Constrained with adjacent access turn lane. Existing bay taper acceptable.
		WBR	D	45	Local	N/A	5	5	4	5	5	4	5	5	4	5	5	4	5	5	4	None	Private Access not applicable to this project.
		NBL	D		Local	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	
		NBR	D	20	Local	N/A	0	3	5	0	3	5	0	3	5	48	50	34	40	64	36	None	NB Front Street constrained to NBR movements. Lane is continuous, no decel lane needed.
		NBR	A	45	Local	N/A	0	3	5	0	3	5	0	3	5	48	50	34	40	64	36	None	Assume NR-B Equivalent. 64vph. No safety/operational concerns, therefore accel lanes is not required.
		SBL	D		Local	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	
		SBR	D	20	Local	N/A	11	5	1	11	5	1	11	5	1	11	5	1	11	5	1		Private Access not applicable to this project.
3	S. Boulder Road & Cannon Circle	EBL	D		Local	N/A	21	48	28	21	48	28	21	48	28	21	48	28	21	48	28	90' + 65' Taper	Project to construct median extension to restrict to 3/4 movement. EBL at private access not applicable to this project.
		EBR	D		Local	N/A	0	27	15	0	27	15	0	27	15	9	45	26	12	47	27	None	Assume NR-B Equivalent. 49vph. 50' storage + 10' lane @ 13.5:1 (135' taper). Need to construct turn lane.
		WBL	D		Local	N/A	6	18	34	6	18	34	8	21	34	17	40	44	31	62	52	75' + 75' Taper	Assume NR-B Equivalent. 62vph. 55' storage + 10' lane @ 13.5:1 (135' taper) Constrained with adjacent access turn lane. Existing bay taper acceptable.
		WBR	D		Local	N/A	8	12	12	8	12	12	8	12	12	8	12	12	8	12	12	None	Private Access not applicable to this project.
		NBL	D		Local	N/A	0	2	8	0	2	8	0	2	8	0	0	0	0	0	0	None	Project to construct median extension to restrict to 3/4 movement. NBL to be removed in total traffic conditions.
		NBR	D		Local	N/A	1	23	13	1	23	13	2	24	21	45	65	48	38	80	58	None	Project to construct median extension to restrict to 3/4 movement. NB Cannon Circle is constrained to NBR movements. Lane is continuous, no decel lane needed.
		SBL	D		Local	N/A	8	21	23	8	21	23	8	21	23	0	0	0	0	0	0	45' Lane	Project to construct median extension to restrict to 3/4 movement. SBL to be removed in total traffic conditions.
		SBR	D		Local	N/A	28	45	56	28	45	56	28	45	56	36	66	82	36	66	82	45' Lane	Assume NR-B Equivalent. 82vph. No safety/operational concerns, therefore accel lanes is not required.
4	Courtesy Road (SH42) & S Boulder Road	EBL	D	45	Local	N/A	281	554	372	288	568	382	369	727	492	312	591	397	389	757	508	160' Dual	95th percentile queue >766'. Existing queue length exceeds current storage capacity. EBL lanes are constrained from back to back left turns of adjacent intersection.
		EBR	D	45	Local	N/A	145	163	99	149	167	102	190	214	130	175	193	118	212	247	147	None	435' decel including 13.5:1 taper. Proposed with Future 42 Plan implementation.
		EBR	A	45	NR-A	> 50	145	163	99	149	167	102	190	214	130	175	193	118	212	247	147	None	247vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated in Future 42 Plan.
		WBL	D	45	Local	N/A	250	336	236	261	355	252	332	453	322	261	355	252	332	453	322	220' Dual	95th percentile queue >362'. Existing queue length may exceed current storage capacity. WBL lanes are constrained from back to back left turns of adjacent intersection.
		WBR	D	45	Local	N/A	149	197	132	153	202	135	195	258	173	153	202	135	195	258	173	Continuous Channelized	WBR Lane is a continuous right turn lane for multiple accesses. 435' decel including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		WBR	A	45	NR-A	> 50	149	197	132	153	202	135	195	258	173	153	202	135	195	258	173	None	258vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		NBL	D	45	NR-A	> 10	171	125	154	175	128	158	226	167	202	177	132	160	244	199	216	220' Dual	244vph. 435' decel + 245' storage including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		NBR	D	45	NR-A	> 25	190	245	190	198	255	199	258	328	253	198	255	199	258	328	253	None	435' decel including 13.5:1 taper. Proposed with Future 42 Plan implementation.
		NBR	A	45	NR-A	> 50	190	245	190	198	255	199	258	328	253	198	255	199	258	328	253	None	328vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		SBL	D	45	NR-A	> 10	125	135	107	128	139	110	164	177	140	128	139	110	164	177	140	185' Dual	177vph. 435' decel + 180' storage including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		SBR	D	45	NR-A	> 25	420	307	253	431	315	260	551	403	332	440	333	268	563	423	341	300' Channelized	564vph. 435' decel including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		SBR	A	45	Local	N/A	420	307	253	431	315	260	551	403	332	440	333	268	563	423	341	None	Assume NR-B Equivalent. 564vph. To be coordinated with Future 42 Plan implementation.
5	Courtesy Road (SH42) & Cannon Circle	EBL	D	20	Local	N/A	1	1	8	1	1	8	0	0	0	1	1	8	0	0	0	None	Project to construct median extension to restrict to 3/4 movement. Future 42 Plan will restrict to RIRO movements only. EBL to be removed with project construction.
		EBR	D	20	Local	N/A	0	6	1	0	6	1	0	6	1	17	19	10	13	26	11	None	Project to construct median extension to restrict to 3/4 movement. EB Cannon Circle is constrained to EBR movements. Lane is continuous, no decel lane needed.
		EBR	A	45	NR-A	> 50	0	6	1	0	6	1	0	6	1	17	19	10	13	26	11	None	26vph. Does not meet Access Code requirements for construction of an accel lane.
		NBL	D	45	NR-A	> 10	2	3	0	2	3	0	0	0	0	13	26	11	0	0	0	135' + 100' Taper	NBL to remain until Future 42 Plan implementation. 26vph. 435' decel including 13.5:1 taper. Turn lane extension to be coordinated with CDOT due to back to back left turns at the Louisville Sports Complex access. NBL will be restricted with Future 42 Plan.
		SBR	D	45	NR-A	> 25	1	9	10	1	9	10	1	9	10	5	19	15	8	21	16	None	21vph. Does not meet Access Code requirements for construction of a decel lane.

Table 12 - Auxiliary Turn Lane Requirements (continued) [1]

#	Intersection	Mvmt	Accel or Decel	Posted Speed Limit (MPH)	Road Jurisdiction/ CDOT Class	SHAC Trigger Volume (VPH)	Year 2024 Existing			Year 2026 BG			Year 2045 BG			Year 2026 Total			Year 2045 Total			Existing Turn Lane	Trigger Year & Condition
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT		
6	Courtesy Road (SH42) & Griffith Street	EBL	D	25	Local	N/A	15	7	10	19	11	14	29	17	20	19	11	14	29	17	20	None	In the short term the anticipated 95th percentile queue length is 75'. Future 42 Plan implementation in the future will signalize this intersection. A future EBL turn should have 50' of storage + taper to contain the 95th percentile queue with the signal. EBL construction to be coordinated with the Future 42 plan implementation.
		EBR	D	25	Local	N/A	54	39	21	54	39	21	54	39	21	54	39	21	54	39	21	None	Future 42 Plan implementation in the future will signalize this intersection. A future EBTR to be coordinated with the Future 42 plan implementation.
		EBR	A	45	NR-A	> 50	54	39	21	54	39	21	54	39	21	54	39	21	54	39	21	None	77vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
		WBL	D	45	Local	N/A	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	None	Private Access not applicable to this project.
		WBR	D	45	Local	N/A	0	0	6	0	0	6	0	0	6	0	0	6	0	0	6	50' Lane	Private Access not applicable to this project.
		WBR	A	45	NR-A	> 50	0	0	6	0	0	6	0	0	6	0	0	6	0	0	6	None	Private Access not applicable to this project.
		NBL	D	45	NR-A	> 10	37	19	21	37	19	21	37	19	21	37	19	21	37	19	21	225' + 150' Taper	In the short term the anticipated 95th percentile queue length is 25'. Future 42 Plan implementation in the future will signalize this intersection. A future NBL turn should have 435' of decel + 45' of storage including a 13.5:1 taper. EBL construction to be coordinated with the Future 42 plan implementation.
		NBR	D	45	NR-A	> 25	4	2	43	4	2	43	4	2	43	4	2	43	4	2	43	None	Existing volumes require the construction of a NBR turn lane of 435' length including a 13.5:1 taper. Private access not applicable to this project.
		NBR	A	25	Local	N/A	4	2	43	4	2	43	4	2	43	4	2	43	4	2	43		
		SBL	D	45	NR-A	> 10	5	1	11	5	1	11	5	1	11	5	1	11	5	1	11	505' + 135' Taper	In the short term the anticipated 95th percentile queue length is 25'. Future 42 Plan implementation in the future will signalize this intersection. A future SBL turn should have 435' of decel + 200' of storage including a 13.5:1 taper. SBL construction to be coordinated with the Future 42 plan implementation. Private access not applicable to this project.
		SBR	D	45	NR-A	> 25	81	117	38	83	123	44	83	123	44	94	133	50	91	137	50	175' (Continuous)	137vph. 435' decel including 13.5:1 taper. Turn lane design to be coordinated with CDOT due to adjacent accesses. Future SBR design to be coordinated with the Future 42 plan implementation.
		SBR	A	25	Local	N/A	81	117	38	83	123	44	83	123	44	94	133	50	91	137	50		
7	Griffith Street & Cannon Street	EBL	D	25	Local	N/A	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	None	Volume does not meet requirements for construction of a decel lane.
		EBR	D	25	Local	N/A	7	10	8	13	26	24	12	22	20	13	26	24	12	22	20	None	Volume does not meet requirements for construction of a decel lane.
		WBL	D	25	Local	N/A	12	21	9	14	27	15	14	27	15	14	27	15	14	27	15	None	Volume does not meet requirements for construction of a decel lane.
		WBR	D	25	Local	N/A	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	None	Volume does not meet requirements for construction of a decel lane.
		NBL	D	20	Local	N/A	10	11	6	32	28	23	19	19	14	32	28	23	19	19	14	None	Volume does not meet requirements for construction of a decel lane.
		NBR	D	20	Local	N/A	5	1	6	9	5	10	19	11	16	9	5	10	19	11	16	None	Volume does not meet requirements for construction of a decel lane.
		SBL	D	20	Local	N/A	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	None	Volume does not meet requirements for construction of a decel lane.
		SBR	D	20	Local	N/A	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	None	Volume does not meet requirements for construction of a decel lane.
8	Griffith Street & Front Street	EBL	D	25	Local	N/A	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6	None	Volume does not meet requirements for construction of a decel lane.
		EBR	D	25	Local	N/A	2	6	3	2	6	3	2	6	3	2	6	3	2	6	3	None	Volume does not meet requirements for construction of a decel lane.
		WBL	D	25	Local	N/A	3	5	1	3	5	1	3	5	1	3	5	1	3	5	1	None	Volume does not meet requirements for construction of a decel lane.
		WBR	D	25	Local	N/A	1	0	3	1	0	3	1	0	3	1	0	3	1	0	3	None	Volume does not meet requirements for construction of a decel lane.
		NBL	D	20	Local	N/A	6	2	8	6	2	8	6	2	8	6	2	8	6	2	8	None	Volume does not meet requirements for construction of a decel lane.
		NBR	D	20	Local	N/A	3	1	0	3	1	0	3	1	0	3	1	0	3	1	0	None	Volume does not meet requirements for construction of a decel lane.
		SBL	D	20	Local	N/A	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	None	Volume does not meet requirements for construction of a decel lane.
		SBR	D	20	Local	N/A	5	3	4	5	3	4	5	3	4	5	3	4	5	3	4	None	Volume does not meet requirements for construction of a decel lane.
9	Griffith St & Main St	WBL	D	25	Local	N/A	35	74	51	42	80	57	42	80	57	53	90	63	50	94	63	None	Volume does not meet requirements for construction of a decel lane.
		WBR	D	25	Local	N/A	57	46	25	73	57	36	59	48	27	73	57	36	59	48	27	None	Volume does not meet requirements for construction of a decel lane.
		NBR	D	25	Local	N/A	57	31	38	60	39	46	60	39	46	60	39	46	60	39	46	None	Volume does not meet requirements for construction of a decel lane.
		SBL	D	25	Local	N/A	18	32	11	21	39	18	20	35	14	21	39	18	20	35	14	None	Volume does not meet requirements for construction of a decel lane.
10	Front St & Harper St	WBL	D	25	Local	N/A	6	6	4	6	6	4	6	6	4	6	6	4	6	6	4	None	Volume does not meet requirements for construction of a decel lane.
		WBR	D	25	Local	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
		NBR	D	25	Local	N/A	3	7	9	3	7	9	3	7	9	3	7	9	3	7	9	None	Volume does not meet requirements for construction of a decel lane.
		SBL	D	25	Local	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
11	Courtesy Road (SH42) & Harper Street	EBL	D	20	Local	N/A	7	26	38	7	26	38	0	0	0	7	26	38	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
		EBR	D	20	Local	N/A	12	61	11	12	61	11	19	87	49	12	61	11	19	87	49	None	Volume does not meet requirements for construction of a decel lane.
		EBR	A	45	NR-A	> 50	12	61	11	12	61	11	19	87	49	12	61	11	19	87	49	None	87vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with the Future 42 plan implementation.
		NBL	D	45	NR-A	> 10	7	7	6	7	7	6	0	0	0	7	7	6	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
		SBR	D	45	NR-A	> 25	2	8	6	2	8	6	2	8	6	2	8	6	2	8	6	None	Volume does not meet requirements for construction of a decel lane.

[1]Based upon *State Highway Access Code* requirements for an NR-A roadway with posted speed of 45mph.

Triggered by State Highway Access Code Volumes

Triggered by State Highway Access Code Safety and Operations

Intersection #1 - South Boulder Road and Main Street Intersection: This existing signalized intersection has adequate eastbound right and westbound left turn lanes for normal operations through Year 2045 total traffic operations. The northbound movement on Main Street can be anticipated to queue up to over 200' at the signal. This queue is anticipated to block approximately one residential driveway during peak traffic operations.

During railroad crossings at this intersection, longer queues occur. It takes a few minutes for the queues to dissipate.

These conditions occur with or without the addition of the Coal Creek Village project-generated traffic.

Intersection #2 - South Boulder Road and Front Street Intersection: Mainline South Boulder Road operates at an equivalent classification as a CDOT NRB roadway. It has a posted speed limit of 45mph.

With the development of Coal Creek Village, the eastbound right turn lane needs to be extended to include 75' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane. No acceleration lane is required for this movement onto South Boulder Road.

Intersection #3 - South Boulder Road and Cannon Circle intersection: With the construction of Coal Creek Village, this access will be further restricted from to a ¾ movement access, prohibiting the northbound and southbound through and left turn movements.

Mainline South Boulder Road operates at an equivalent classification as a CDOT NRB roadway. It has a posted speed limit of 45mph.

With the development of Coal Creek Village, an eastbound right turn lane needs to be constructed to include 50' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access. The 95th percentile queue for this movement is less than the available storage length + taper length. Therefore, no changes are recommended to the westbound left deceleration lanes.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane.

Intersection #4 - South Boulder Road and SH 42 intersection: This is a full-movement, signalized intersection. The *Future 42* plan depicts intersection improvements that

include the construction of channelized northbound and eastbound right turn lanes. The Year 2045 total traffic scenario is modeled assuming the westbound and southbound right turn lanes are constructed. Even with these future improvements, this intersection has movements that are anticipated to operate at a failing LOS F for both Year 2026 and Year 2045 background and total traffic conditions.

The existing eastbound and westbound left turn lane queues exceed the available capacity. Both of the median islands are constrained by a back-to-back left turn lane at the adjacent access.

The northbound and southbound left turn lanes also need to be extended to accommodate the existing queue lengths. All of the turn lane and intersection improvements should be coordinated with the implementation of the City's *Future 42* plan.

Intersection #5 - SH 42 and Cannon Circle intersection: This is a full-movement "T" intersection. With the buildout of Coal Creek Village, this intersection will be restricted to a ¾ movement by extending the existing center median in SH 42.

The eastbound movement will be restricted to right turn only movements. Therefore, no deceleration lane is needed for this movement.

The northbound left turn movement will remain until the *Future 42* plan is implemented. Per the *Access Code*, this movement should have a deceleration lane that is 435' in length, including a 13.5:1 taper. Any modifications to the turn lane need to be coordinated with CDOT, as the movement is temporary and the associated median is back-to-back with the southbound left turn lane into the Louisville Sports Complex.

The southbound right turn lane is not required per CDOT's *Access Code* based upon the anticipated traffic volumes at this access.

Intersection #6 - SH 42 and Griffith Street intersection: This is a full-movement intersection. It is planned to be signalized with the implementation of the *Future 42* plan. Upon signalization, it is anticipated that separate eastbound and westbound left turn lanes will need to be constructed. The existing southbound right turn lane should remain. The northbound left turn lane is anticipated to require 435' of deceleration length with 45' of storage. The southbound left turn lane is anticipated to require 435' of deceleration length with 50' of storage. Additional length may be required for the traffic queues associated with the Louisville Sports Complex. These improvements are required with or without the addition of Coal Creek Village's project-generated traffic.

Intersection #7 – Griffith Street and Cannon Street intersection: This is a full-movement intersection with stop-control on the north and south legs. No additional turn lanes are required.

Intersection #8 – Griffith Street and Front Street intersection: This is a full-movement intersection with stop-control on the north and south legs. No additional turn lanes are required.

Intersection of Griffith Street and the BNSF Railroad: This at-grade railroad crossing sees multiple trains crossings per day, with each impacting the crossing for three to five minutes at a time. During the crossing, traffic queues on Griffith Street back up in either direction. Refer to **Section 6.7** for analysis of the crossing impacts.

Intersection #9 – Griffith Street and Main Street intersection: This is a full-movement "T" intersection. The east leg is stop-controlled. This is a full-movement intersection with stop-control on the north and south legs. No additional turn lanes are required.

Intersection #10 – Front Street and Harper Street intersection: This is a free-flowing intersection. No modifications to the current public street configuration are anticipated. The developer will construct a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is permitted.

Intersection #11 – SH 42 and Harper Street intersection: The existing volume of eastbound right turns from Harper Street onto SH 42 exceeds the *Access Code*'s requirement to construct an acceleration lane for this movement. With the implementation of the *Future 42* Plan, this volume is anticipated to increase because current traffic making the eastbound left movement will likely make a right turn instead. Coal Creek Village's site traffic is not anticipated to impact this movement.

At a minimum, the construction of an acceleration lane should be incorporated into the implementation of Future 42 plans.

6.5 SH 42 and Cannon Circle State Highway Access Permit

Per Section 2.6(3) of the *Access Code*, a new access permit is required by CDOT when the traffic volume is anticipated to increase by 20%. The additional site traffic associated with the proposed Coal Creek Village project is anticipated to approximately triple traffic on the Cannon Circle Access. Therefore, a new State Highway Access Permit will be required for this intersection.

6.6 Louisville Middle School

Louisville Middle School is located directly west of the Griffith Street and Main Street intersection. Middle school students are not old enough to drive themselves to school. The school day runs from 8:45am to 3:45pm. Wednesday's schedule runs from 9:45am to 3:45pm. Main Street experiences high traffic congestion during peak dropoff and pickup periods. The Boulder Valley School District has published a

Louisville Middle School Travel Map14 encouraging students to walk within a three-block and ½ mile radius of the school. This map is included in the Appendix. This traffic impacts traffic queues on Griffith Street. Hug n' Go Lanes are located on the south and west sides of the school.

The recommended improvements at the intersection of Griffith Street and Front Street should assist with school queues impacting Griffith Street. The pedestrian crosswalk will facilitate pedestrian access across Griffith Street. The 'Do Not Block Intersection' signing and striping improvments will also assist with Front Street egress onto Griffith Street.

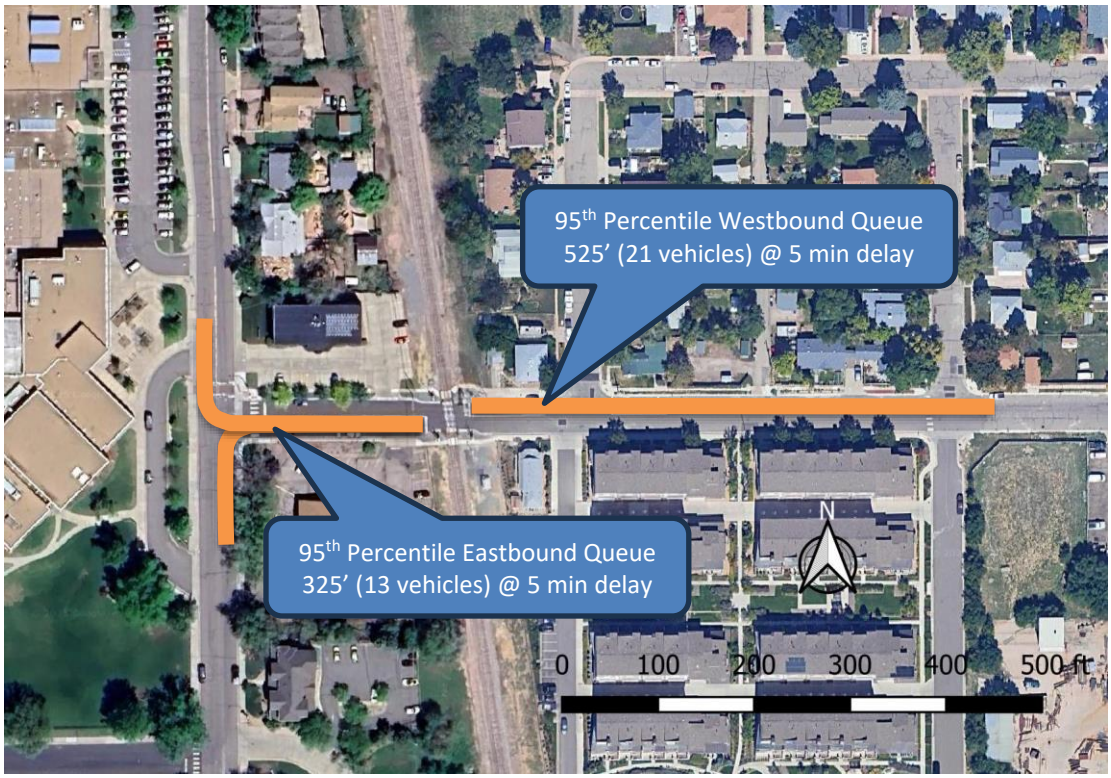
6.7 Restricted Front Street Emergency/Pedestrian Access

A proposed restricted access will connect Coal Creek Village to Front Street in the Little Italy neighborhood. This access will be designed to restrict public vehicular access, while allowing emergency vehicles, bicycles, and pedestrian traffic. The design will be coordinated with the City of Louisville. Refer to the site plan in **Figure 2**.

6.8 Griffith Street Queuing Analysis for Railroad

The railroad that runs parallel to Main Street between Main Street and Front Street is anticipated to have delays between three and five minutes when trains are crossing Griffith Street. A queuing analysis was performed on Griffith Street at the railroad crossing.

Figure 19: Anticipated Queue Lengths for Railroad Operations



Both 50th percentile and 95th percentile queues were calculated using a cumulative Poisson distribution. Detailed calculations are available in the **Appendix**. **Table 13** and **Table 14**. summarize the queuing calculations for all the scenarios assuming a 3 minute or 5 minute railroad delay.

The maximum anticipated 50th and 95th percentile queue lengths occur during the Total 2026 PM Peak hour scenario. **Figure 19** shows the 95th percentile queue lengths with a 5 minute delay for this scenario. These queues are 525' for the westbound and 325' for the eastbound. It was assumed that each vehicle occupies 25' in the queue, therefore, the 525' westbound queue is anticipated to contain 21 vehicles and the 325' eastbound queue is anticipated to contain 13 vehicles.

Table 13: Queuing Summary (3 Minute Railroad Crossing Delay)

Scenario	Sum of (50th Percentile) Queue Length (ft.)		Sum of (95th Percentile) Queue Length (ft.)	
	EB	WB	EB	WB
Background 2026 AM	100	150	200	250
Background 2026 PM	100	175	175	275
Background 2026 SAT	75	100	150	200
Background 2045 AM	100	125	200	225
Background 2045 PM	100	150	175	275
Background 2045 SAT	75	100	150	200
Total 2026 AM	100	150	200	275
Total 2026 PM	100	175	175	300
Total 2026 SAT	75	125	150	225
Total 2045 AM	100	125	200	250
Total 2045 PM	100	175	175	300
Total 2045 SAT	75	100	150	200

Table 14: Queuing Summary (5 Minute Railroad Crossing Delay)

Scenario	Sum of (50th Percentile) Queue Length (ft.)		Sum of (95th Percentile) Queue Length (ft.)	
	EB	WB	EB	WB
Background 2026 AM	175	225	275	375
Background 2026 PM	150	275	275	425
Background 2026 SAT	125	200	225	325
Background 2045 AM	175	200	275	350
Background 2045 PM	150	250	250	400
Background 2045 SAT	125	175	225	300
Total 2026 AM	175	250	275	400
Total 2026 PM	150	300	275	450
Total 2026 SAT	125	200	225	325
Total 2045 AM	175	225	275	350
Total 2045 PM	150	300	250	450
Total 2045 SAT	125	175	225	300

Note: Highlighted Line represents the longest anticipated queue

It is anticipated that the addition of development-related traffic will increase the 95th Percentile queue lengths by a maximum of 3 vehicles (75') per 3 minute delay. When the railroad delay is 5 minutes, the 95th Percentile queue lengths are anticipated to be increased by approximately 5 vehicles (125').

7.0 Recommendations and Conclusions

Transportation infrastructure recommendations associated with the construction of the Coal Creek Village project are summarized below.

Restricted Front Street Emergency/Pedestrian Access:

A proposed restricted access will connect Coal Creek Village to Front Street in the Little Italy neighborhood. This access will be designed to restrict public vehicular access, while allowing emergency vehicles, bicycles, and pedestrian traffic. The design will be coordinated with the City of Louisville. Intersection #2 - South Boulder Road and Front Street Intersection: With the development of Coal Creek Village, the eastbound right turn lane needs to be extended to include 75' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane. No acceleration lane is required for this movement onto South Boulder Road.

Intersection #3 - South Boulder Road and Cannon Circle intersection: With the construction of Coal Creek Village, this access will be further restricted to a ¾ movement access, prohibiting the northbound and southbound through and left turn movements by extending the raised center median.

With the development of Coal Creek Village, an eastbound right turn lane needs to be constructed to include 50' of storage and a 13.5:1 taper to accommodate the anticipated site-generated traffic. The westbound left turn lane is constrained by the back-to-back turn lane to the adjacent access. The 95th percentile queue for this movement is less than the available storage length + taper length. Therefore, no changes are recommended to the westbound left deceleration lanes.

The northbound movement is restricted to right turn movements. Therefore, the northbound movement out of the site does not require a separate turn lane.

Intersection #5 - SH 42 and Cannon Circle intersection: With the construction of Coal Creek Village, this intersection will be restricted to a ¾ movement by extending the existing center median in SH 42.

The eastbound movement will be restricted to right turn only movements. Therefore, no deceleration lane is needed for this movement.

Intersection #8 – Griffith Street and Front Street intersection: This is a full-movement intersection with stop-control on the north and south legs. No additional turn lanes are required.

Intersection of Griffith Street and the BNSF Railroad: This at-grade railroad crossing sees multiple trains crossings per day, with each impacting the crossing for three to five minutes at a time. During the crossing, traffic queues on Griffith Street back up in either direction. As described above, it is recommended that the City considers adding signing and striping to the intersection of Griffith Street and Front Street with "Do not block intersection" to allow for ingress and egress movements at the Griffith Street and Front Street intersection during train crossings. Intersection #10 – Front Street and Harper Street intersection with the Front Street Connection: This is a free-flowing intersection. The developer will construct a restricted access that will allow emergency vehicles, bicycles, and pedestrian traffic. No public vehicular access is permitted. The design will be coordinated with the City of Louisville.

Intersection #11 – SH 42 and Harper Street intersection: The existing volume of eastbound right turns from Harper Street onto SH 42 exceeds the *Access Code*'s requirement to construct an acceleration lane for this movement. With the implementation of the *Future 42* Plan, this volume is anticipated to increase because current traffic making the eastbound left movement will likely make a right turn instead. Coal Creek Village's site traffic is not anticipated to impact this movement. At a minimum, the construction of an acceleration lane should be incorporated into the implementation of Future 42 plans.

8.0 Appendix

Reference Documents

1. *CDOT Online Traffic Information System.* Colorado Department of Transportation, https://dtdapps.coloradodot.info/otis
2. *2015 Assigned All Day Model Volumes* and *2040 Assigned All Day model Volumes,* Denver Regional Council of Governments, https://drcog.org/services-and-resources/data-maps-and-modeling/travel-modeling
3. *Highway Capacity Manual.* Transportation Research Board, 2010.
4. *11th Edition Trip Generation Manual*. Institute of Transportation Engineers, 2021.
5. *Trip Generation Handbook, 3rd Edition*. Institute of Transportation Engineers, 2017.
6. *Trip Generation Handbook*, 2nd Edition. Institute of Transportation Engineers, 2004.
7. *State of Colorado, State Highway Access Code, Volume 2,* Code of Colorado Regulations 601-1, March 2002.
8. *Design and Construction Standards, City of Louisville, Department of Public Works, Engineering Division, 1994.*
9. *Future 42* (SH 42 Corridor Study). City of Louisville, December 2022.
10. *City of Louisville Transportation Master Plan*. City of Louisville, 2019.
11. *South Boulder Road Corridor Evaluation*. City of Louisville and FHU, 2022.
12. *Delo Boom Traffic Impact Study*. Kimley Horn, September 2024.
13. *Louisville South Boulder Road Connectivity Plan.* City of Louisville, 2019.
14. *Louisville Middle School Travel Map.* Boulder Valley School District, 2024.
15. *DRCOG South Boulder Road Corridor Study.* DRCOG, 2024

Included Documents

Appendix A: Traffic Study Scoping Form and City Staff's Comments

Appendix B: Site Plan (24" x 36" pdf)

Appendix C: Traffic Counts

Appendix D: Background Growth Rate Calculations per DRCOG

Appendix E: Internal Reduction Calculations

Appendix F: Signal Timing Plans

- SH 42 and South Boulder Road
- Main Street and South Boulder Road

Appendix G: *Future 42* Excerpt of Preferred South Boulder Road and SH 42 Design

Appendix H: *Future 42* Excerpt of Preferred SH 42 and Griffith Street Design

Appendix I: *City of Louisville Transportation Master Plan* Excerpt of South Boulder Road Corridor Improvements and Commercial Driveway

Appendix J: *Louisville South Boulder Road Connectivity Plan* Excerpt of South Boulder Road and Main Street Future Pedestrian Underpass

Appendix K: Additional Figures

- Figure AP01: Year 2024 Existing Traffic
- Figure AP02: Year 2026 Background Traffic (Delo Boom Development)
- Figure AP03: Year 2045 Background Traffic (Delo Boom Development)
- Figure AP04: Year 2045 Background Adjust (Int #5 & #6 Redistribution)
- Figure AP05: Background Adjust for Total (Int #3 Redistribution)

Appendix L: Synchro Modeling Reports

Appendix M: Louisville TMP Pages

Appendix N: Railroad Queuing Calculations

Appendix O: Louisville Middle School Travel Map

Appendix P: Intersection Traffic Queue Table

Appendix A: Traffic Study Scoping Form

Traffic Study Scoping Form

Contact Information	
Consultant Name:	McDowell Engineering
Tele:	970-623-0788
E-mail:	kari@mcdowelleng.com
Developer/Owner Name:	Jason Markel, Markel Homes

Project Information (*Attach proposed site plan.*)								
Project Name:	Coal Creek Station							
Project Location:	1000, 1030, 1032, 1034, 1040 E. South Boulder Road, Louisville, CO							
Project Description: Application type (rezoning, subdivision), acreage, new or re-development, etc.	Mixed Use Redevelopment							
Existing Land Uses	ITE Code	#units or Size	Proposed Land Uses	ITE Code	#units or Size	Proposed Land Uses	ITE Code	#units or Size
Restaurant	930	428sf	Low Rise Multifamily	220	188du			
			Retail Plaza	822	13,534sf			
Please attach Trip Generation Summary table for large or mixed use projects.								

Assumptions				
Study Horizons	Current Year: 2024	Buildout Year: 2025	Long Term Year: 2045	
Study Area Boundaries	North: South Boulder Road	South: Griffith Street		
(Attach map if needed.)	East: Courtesy Road	West: Main Street		
Intersections to be Evaluated	1. S. Boulder Rd. & Main St.	6. Courtesy Rd. & Griffith St.		
(Attach map if needed.)	2. S. Boulder Rd. & Front St.	7. Griffith St. & Cannon St.		
	3. S. Boulder Rd. & Cannon Cir.	8. Griffith St. & Front St.		
	4. S. Boulder Rd. & Courtesy Rd.	9. Griffith St. & Main St.		
	5. Courtesy Rd. & Cannon Cir.	10. Front St. & Harper St.		
Trip Distribution	*See attached sketch.*			
Trip Reductions*	Internal Capture	Use: See attached. %	Pass By	Use: N/A %
	Multimoda	Use: 5 %		Use: %
**Include in Trip Generation table if provided. Submit calculations based upon ITE's* Trip Generation Handbook.				

Assumptions (continued)			
Anticipated Future Traffic Growth Rates *(Describe methodology.)*	See attached graphic with DRCOG projections. Find Annual Growth Rate for 2015-2040 model	Study Time Periods *(Check all that apply.)*	■ AM (7-9) ■ PM (4-6) ■ SAT (noon) ☐ Other:
Other Factors (Proposed/assumed transportation improvements, other studies, nearby proposed developments, etc.)	1. Include analyses with and without a Front Street connection. 2. Include Delo Bloom TIS from 2/2024 in background analysis. 3. From the previous TIS, change Cannon Circle/Courtesy Road to a 3/4 movement in Year 2025. 4. A matrix of the intersection control(s) for each scenario is included. 5. Address cut through traffic caused by the inability to turn left out of the site. 6. Include objective analysis for the directional distribution assumptions. 7. Use 1,000vpd for a residential street capacity based upon livability, not actual capacity.		
Analysis Methods & Issues *(Check all that apply.)*	☐ Synchro ☐ HCS ☐ aaSidra or Rodel ☐ Intersections ☐ Roadway Sections ☐ Signal Warrants ☐ Safety/Sight Distance ☐ Queuing & Storage ☐ CDOT (Access Permit, etc.) ☐ Identify Bicycle, Pedestrian & Transit Accomodations ☐ TDM ☐ Neighborhood Impacts ☐ Other:		

Attachments, Notes, & Other Assumptions:

Signed: Kari McDowell Schroeder (Applicant or Consultant) Print Name: Kari McDowell Schroeder (Applicant or Consultant) Date: 2/26/2025	Review Agency: Department: Signed: Print Name: Date:

McDOWELL ENGINEERING

Table 1 - Coal Creek Station
Project Trip Generation
Estimated Project-Generated Traffic[1]

PROJECT NUMBER: M1663
PREPARED BY: KJS
DATE: 2025-02-26
REVISED:

ITE Code	Units [2]		Eq. Coef	ITE Trip Generation Equation[3] Avg. Weekday	AM Peak Hour	PM Peak Hour	Sat. Peak Hour	Average Weekday Trips (vpd)	Morning Peak Hour Inbound % Trips	Morning Peak Hour Inbound Trips (vph)	Morning Peak Hour Outbound % Trips	Morning Peak Hour Outbound Trips (vph)	Evening Peak Hour Inbound % Trips	Evening Peak Hour Inbound Trips (vph)	Evening Peak Hour Outbound % Trips	Evening Peak Hour Outbound Trips (vph)	Saturday Peak Hour Inbound % Trips	Saturday Peak Hour Inbound Trips (vph)	Saturday Peak Hour Outbound % Trips	Saturday Peak Hour Outbound Trips (vph)
Existing Land Use																				
#930 - Fast Casual Restaurant	0.43	ksf	Type a= b=	Rate 97.14	Rate 5.71	Rate 18.57	Rate 32.64	42	63%	2	37%	1	62%	5	38%	4	55%	8	45%	7
Multi-Modal Reduction		*-5%*						*-2*		*0*		*0*		*0*		*0*		*0*		*0*
Existing External Restaurant Vehicular Trips								**40**		**2**		**1**		**5**		**4**		**8**		**7**
Internal Capture Reduction[4]								-17		-1		0		-1		-1		-2		-2
External Restaurant Vehicular Trips with Buildout of Coal Creek Station								**23**		**1**		**1**		**4**		**3**		**6**		**5**
										2				***7***				***11***		
Proposed Residential Land Use																				
#220 - Multifamily Housing (Low-Rise)	188	DU	Type a= b=	A 6.41 75.31	A 0.35 28.13	A 0.42 34.78	Rate 0.41	1,280	24%	23	76%	71	62%	71	38%	43	51%	39	49%	38
Multi-Modal Reduction		*-5%*						*-64*		*-1*		*-4*		*-4*		*-2*		*-2*		*-2*
Vehicular Trips								**1,216**		**22**		**67**		**67**		**41**		**37**		**36**
Internal Capture Reduction[4]								-80		-3		-3		-10		-9		-6		-5
Project External Residential Vehicular Trips								**1,136**		**19**		**64**		**57**		**32**		**31**		**31**
										83				***89***				***62***		
Proposed Commercial Land Use																				
#822 - Retail Plaza[5]	13.53	kSF	Type a= b=	A 42.20 229.68	Rate 7.60	Rate 13.24	Rate 6.57	801	50%	51	50%	51	54%	97	46%	82	51%	45	49%	44
Multi-Modal Reduction		*-5%*						*-40*		*-3*		*-3*		*-5*		*-4*		*-2*		*-2*
Vehicular Trips								**761**		**48**		**48**		**92**		**78**		**43**		**42**
Internal Capture Reduction[4]								-87		-3		-4		-9		-10		-5		-7
Project External Commercial Vehicular Trips								**674**		**45**		**44**		**83**		**68**		**38**		**35**
										89				***151***				***73***		
Project Trip Generation Summary																				
Existing External Restaurant Vehicular Trips								**40**		**2**		**1**		**5**		**4**		**8**		**7**
External Restaurant Vehicular Trips with Buildout of Coal Creek Station								**23**		**1**		**1**		**4**		**3**		**6**		**5**
										2				***7***				***11***		
Project External Residential Vehicular Trips								**1,136**		**19**		**64**		**57**		**32**		**31**		**31**
										83				***89***				***62***		
Project External Commercial Vehicular Trips								**674**		**45**		**44**		**83**		**68**		**38**		**35**
										89				***151***				***73***		
Project Total New Vehicular Trips (Restaurant's new internal capture + residential + commercial)								**1,793**		**63**		**108**		**139**		**99**		**67**		**64**
										171				***238***				***131***		
Project Total Vehicular Trips (Including Existing Restaurant)								**1,833**		**109**		**109**		**144**		**103**		**75**		**71**
										218				***247***				***146***		

Notes:

[1] Values obtained from *Trip Generation, 11th Edition,* Institute of Transportation Engineers, September 2021.

[2] vpd = vehicle trips per day, vph = vehicle trips per hour, DU = Dwelling Units, kSF = 1,000 Square Feet

[3] Fitted curve equations from ITE Land Uses - Equation Type A is T = a * X + b, Equation Type B is Ln(T) = a * Ln(X) + b, Rate is T = a * X

[4] Internal capture reductions were obtained from the *ITE Trip Generation Handbook* , Second Edition, June 2004. See calculations in Appendix.

[5] The ITE Trip Generation Manual did not have available data for the directional distribution of the Saturday peak hour. Therefore, the distribution from mid-rise multifamily housing was used.

Multi-Use Trip Generation Calculation

Analyst: KJS

Date: 2/26/2025

Name of Dvlpt.: Coal Creek Station

Time Period: Avg Weekday

LAND USE A

ITE LU Code #822 Retail Plaza

Size 13.5 KSF

	Total	Internal	External
Enter	381	41	340
Exit	380	48	332
Total	761	89	672
%	100%	12%	88%

Exit to External 332

Enter from External 340

30% 114 *Demand*

6 *Balanced*

28% 6 *Demand*

28% 107 *Demand*

11% 42 *Demand*

6 *Balanced*

30% 6 *Demand*

42 *Balanced*

33% 201 *Demand*

9% 34 *Demand*

34 *Balanced*

38% 231 *Demand*

LAND USE B

ITE LU Code #930 Fast Casual Restaurant

Size 430 SF

	Total	Internal	External
Enter	21	8	13
Exit	21	9	12
Total	42	17	25
%	100%	40%	60%

Exit to External 12

Enter from External 13

Demand 9% *Balanced* 2 2 *Demand* 38% 231

Demand 11% *Balanced* 2 2 *Demand* 33% 201

LAND USE C

ITE LU Code #220 Multifamily Housing

Size 188 DU

	Total	Internal	External
Enter	608	44	564
Exit	608	36	572
Total	1216	80	1136
%	100%	7%	93%

Exit to External 564

Enter from External 572

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	340	13	564	917	
Exit	332	12	572	916	
Total	672	25	1136	1833	
Single Use Trip Gen.	761	42	1216	2019	7.7%

McDOWELL ENGINEERING LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook*, Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS
Date: 2/26/2025

Name of Dvlpt.: Coal Creek Station
Time Period: AM Peak

LAND USE A

ITE LU Code #822 Retail Plaza
Size 13.5 KSF

	Total	Internal	External
Enter	48	3	45
Exit	48	4	44
Total	96	7	89
%	100%	7%	93%

Exit to External 44
Enter from External 45

29% 14 *Demand*
1 *Balanced*
31% 1 *Demand*

31% 15 *Demand*
0 *Balanced*
29% 0 *Demand*

7% 3 *Demand*
3 *Balanced*
37% 8 *Demand*

5% 2 *Demand*
2 *Balanced*
34% 23 *Demand*

LAND USE B

ITE LU Code #930 Fast Casual Restaurant
Size 430 SF

	Total	Internal	External
Enter	2	1	1
Exit	1	0	1
Total	3	1	2
%	100%	33%	67%

Exit to External 1
Enter from External 1

5% *Demand* 0 *Balanced* 0 *Demand* 34% 23
7% *Demand* 0 *Balanced* 0 *Demand* 37% 8

LAND USE C

ITE LU Code #220 Multifamily Housing
Size 188 DU

	Total	Internal	External
Enter	22	3	19
Exit	67	3	64
Total	89	6	83
%	100%	7%	93%

Exit to External 19
Enter from External 64

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	45	1	19	65	
Exit	44	1	64	109	
Total	89	2	83	174	
Single Use Trip Gen.	96	3	89	188	7.6%

McDowell Engineering, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS
Date: 2/26/2025

Name of Dvlpt.: Coal Creek Station
Time Period: PM Peak

LAND USE A

ITE LU Code #822 Retail Plaza
Size 13.5 kSF

	Total	Internal	External
Enter	92	9	83
Exit	78	10	68
Total	170	19	151
%	100%	11%	89%

Exit to External 68
83 *Enter from External*

20% 16 *Demand*
1 *Balanced*
20% 1 *Demand*

20% 18 *Demand*
1 *Balanced*
20% 1 *Demand*

12% 9 *Demand*
9 *Balanced*
31% 21 *Demand*

9% 8 *Demand*
8 *Balanced*
53% 22 *Demand*

LAND USE B

ITE LU Code #930 Fast Casual Restaurant
Size 430 SF

	Total	Internal	External
Enter	5	1	4
Exit	4	1	3
Total	9	2	7
%	100%	22%	78%

Exit to External 3
4 *Enter from External*

Demand 9% 0 *Balanced* 0 *Demand* 53% 22
Demand 12% 0 *Balanced* 0 *Demand* 31% 21

LAND USE C

ITE LU Code #220 Multifamily Housing
Size 188 DU

	Total	Internal	External
Enter	67	10	57
Exit	41	9	32
Total	108	19	89
%	100%	18%	82%

Exit to External 57
32 *Enter from External*

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	83	4	57	144	
Exit	68	3	32	103	
Total	151	7	89	247	
Single Use Trip Gen.	170	9	108	287	17.9%

McDowell Engineering, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS
Date: 2/26/2025

Name of Dvlpt.: Coal Creek Station
Time Period: SAT Peak

LAND USE A

ITE LU Code #822 Retail Plaza
Size 13.5 kSF

	Total	Internal	External
Enter	43	5	38
Exit	42	7	35
Total	85	12	73
%	100%	14%	86%

Exit to External 35
38 *Enter from External*

20% 8 *Demand*
2 *Balanced*
20% 2 *Demand*

20% 9 *Demand*
1 *Balanced*
20% 1 *Demand*

12% 5 *Demand*
5 *Balanced*
31% 11 *Demand*

9% 4 *Demand*
4 *Balanced*
53% 19 *Demand*

LAND USE B

ITE LU Code #930 Fast Casual Restaurant
Size 430 SF

	Total	Internal	External
Enter	8	2	6
Exit	7	2	5
Total	15	4	11
%	100%	27%	73%

Exit to External 5
6 *Enter from External*

Demand 9% 1 *Balanced* 1 *Demand* 53% 19
Demand 12% 1 *Balanced* 1 *Demand* 31% 11

LAND USE C

ITE LU Code #220 Multifamily Housing
Size 188 DU

	Total	Internal	External
Enter	37	6	31
Exit	36	5	31
Total	73	11	62
%	100%	15%	85%

Exit to External 31
31 *Enter from External*

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	38	6	31	75	
Exit	35	5	31	71	
Total	73	11	62	146	
Single Use Trip Gen.	85	15	73	173	17.0%

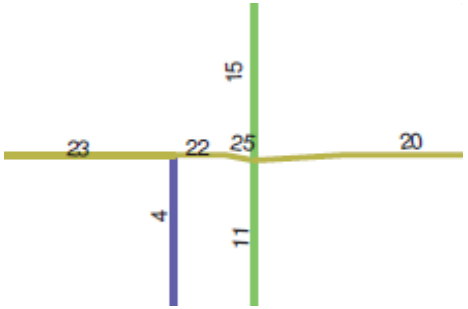
McDowell Engineering, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

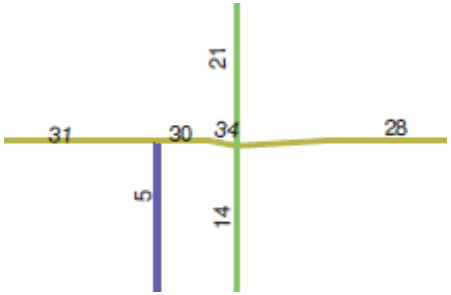
Growth Rate Calculator

Scenario					
Current Year	2015	2015	2015	2015	2015
Current Traffic	23.00	22.00	20.00	15.00	11.00
Future Year	2040	2040	2040	2040	2040
Future Traffic	31.00	30.00	28.00	21.00	14.00
Growth Rate/Year	**1.20%**	**1.25%**	**1.35%**	**1.35%**	**0.97%**
	west leg 1	west leg 2	east leg 1	north leg 1	south leg 1

2015



2040

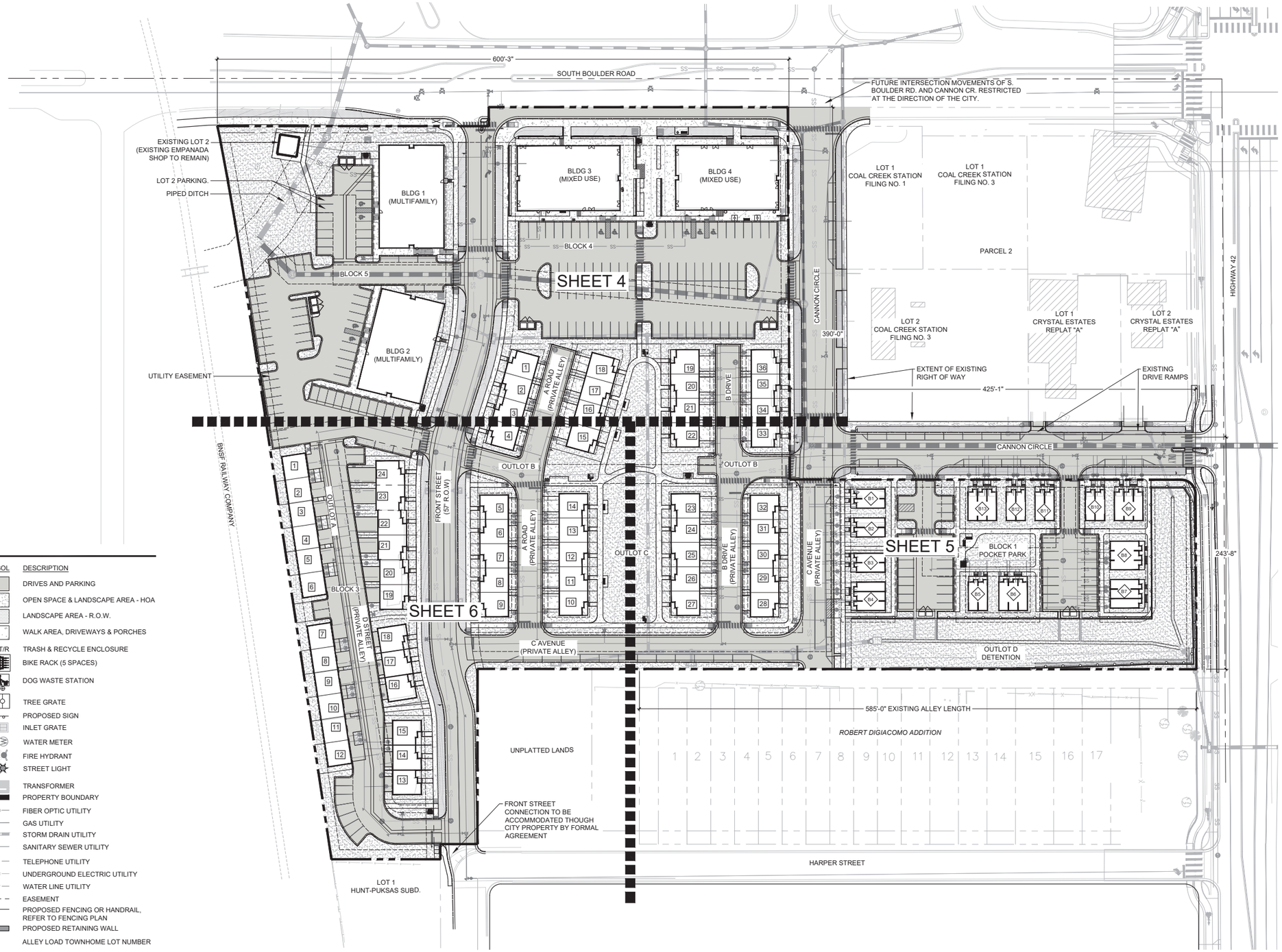


Intersection Control(s) by Scenario

#	Intersection	Year 2024 Existing	Year 2025 BG	Year 2045 BG	Year 2025 Total	Year 2045 Total	Year 2025 Total - No Front St. Connection	Year 2045 Total - No Front St. Connection
1	Main Street & S. Boulder Rd	Signal	Signal	Signal	Signal	Signal	Signal	Signal
2	Front St & S. Boulder Rd	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement
3	Cannon Circle & S. Boulder Rd	Full Movement	Full Movement	Full Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement
4	Courtesy Rd & S. Boulder Rd	Signal - Exist	Signal - Exist	Signal - Future 42 Conditions	Signal - Exist	Signal - Future 42 Conditions	Signal - Exist	Signal - Future 42 Conditions
5	Cannon Circle & Courtesy Rd. (SH 42)	Full Movement	Full Movement	RIRO[3]	3/4 Movement	RIRO[3]	3/4 Movement	RIRO[3]
6	Griffith St. & Courtesy Rd. (SH42)	Full Movement	Full Movement	Signal	Full Movement	Signal	Full Movement	Signal
7	Griffith St. & Cannon St.	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
8	Griffith St. & Front St.	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
9	Griffith St. & Main St.	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement	Full Movement
10	Front St. & Harper St.	Full Movement[1]	Full Movement[1]	Full Movement[1]	Full Movement[2]	Full Movement[2]	Full Movement[1]	Full Movement[1]

Notes: [1]Not Stop Controlled (Free Flowing)
[2]Westbound Stop Controlled
[3]RIRO = Right-In-Right-Out

Appendix B: Site Plan



LEGEND

SYMBOL	DESCRIPTION
	DRIVES AND PARKING
	OPEN SPACE & LANDSCAPE AREA - HOA
	LANDSCAPE AREA - R.O.W.
	WALK AREA, DRIVEWAYS & PORCHES
T/R	TRASH & RECYCLE ENCLOSURE
	BIKE RACK (5 SPACES)
	DOG WASTE STATION
	TREE GRATE
	PROPOSED SIGN
	INLET GRATE
	WATER METER
	FIRE HYDRANT
	STREET LIGHT
	TRANSFORMER
	PROPERTY BOUNDARY
FO	FIBER OPTIC UTILITY
G	GAS UTILITY
	STORM DRAIN UTILITY
SS	SANITARY SEWER UTILITY
T	TELEPHONE UTILITY
UE	UNDERGROUND ELECTRIC UTILITY
W	WATER LINE UTILITY
	EASEMENT
	PROPOSED FENCING OR HANDRAIL, REFER TO FENCING PLAN
	PROPOSED RETAINING WALL
#	ALLEY LOAD TOWNHOME LOT NUMBER
B#	MICRO TOWNHOME BUILDING NUMBER
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
E.A.E.	EMERGENCY ACCESS EASEMENT
U.S.M.E	UTILITY, SIDEWALK, AND MAINTENANCE EASEMENT
E.U.E	EXCLUSIVE UTILITY EASEMENT

NOTE:
+ CONCEPTUAL IMPROVEMENTS FOR HIGHWAY 42 SHOWN. DESIGN OF HIGHWAY 42 IMPROVEMENTS BY OTHERS.

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:

ripleydesign
LANDSCAPE ARCHITECTURE, LAND PLANNING
419 Canyon Ave. Suite 200 Fort Collins, CO 80521
phone 970.224.5828 | fax 970.225.6657 | www.ripleydesigninc.com

PLANNER / LANDSCAPE ARCHITECT

RIPLEY DESIGN INC.
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ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Joel Seamons
420 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P. 303.651.6626

NORTH SCALE: 1"=50'-0" (0 25 50 100)

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	06/17/2022
4	PRELIMINARY PUD RD 4	12/23/2022
5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	05/14/2024

REVISIONS

No.	DESCRIPTION	DATE

SITE PLAN

SEAL:

ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT No.:	R20-030
DRAWN BY:	
REVIEWED BY:	

DRAWING NUMBER:

Plotted By: Megan McGregor **Layout:** S3 SITE PLAN **Printed On:** 4/2/2024 9:27 AM **File Name:** SITE PLAN.dwg

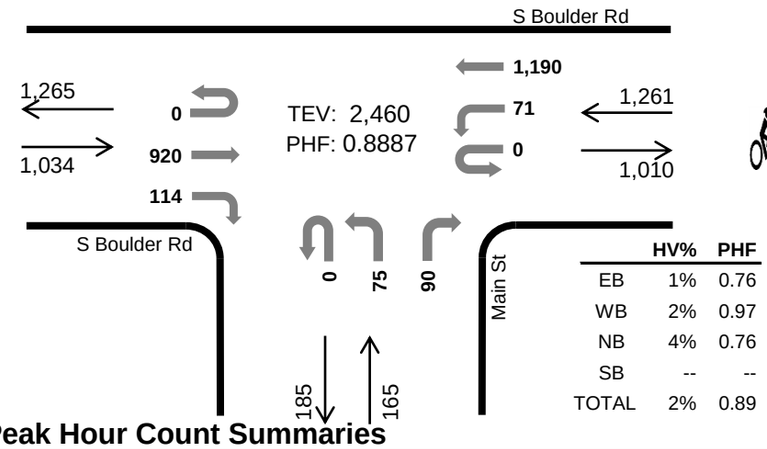
Appendix C: Traffic Counts

Main St
S Boulder Rd

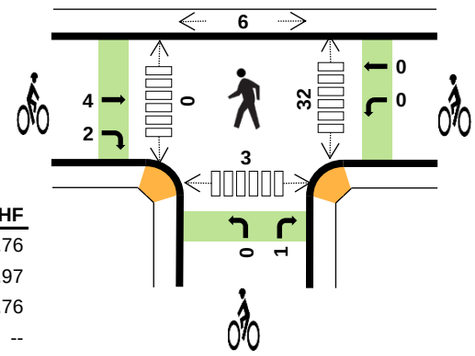
N

Peak Hour

Date:	**11/5/2024**
Count Period:	**7:00 AM to 9:00 AM**
Peak Hour:	**8:00 AM to 9:00 AM**



	HV%	PHF
EB	1%	0.76
WB	2%	0.97
NB	4%	0.76
SB	--	--
TOTAL	2%	0.89



Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	226	18	0	13	299	0	0	18	0	20	0	0	0	0	594	0
8:15 AM		0	0	316	22	0	18	293	0	0	15	0	28	0	0	0	0	692	0
8:30 AM		0	0	175	56	0	27	297	0	0	22	0	32	0	0	0	0	609	0
8:45 AM		0	0	203	18	0	13	301	0	0	20	0	10	0	0	0	0	565	2,460
Pk Hr	All	0	0	920	114	0	71	1,190	0	0	75	0	90	0	0	0	0	2,460	
	HV	0	0	13	2	0	2	22	0	0	2	0	5	0	0	0	0	46	
	HV%	-	-	1%	2%	-	3%	2%	-	-	3%	-	6%	-	-	-	-	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	1	7	2	0	*10*	1	0	0	0	*1*	2	0	1	2	*5*
8:15 AM	6	5	3	0	*14*	2	0	1	0	*3*	17	0	2	0	*19*
8:30 AM	6	3	1	0	*10*	2	0	0	0	*2*	10	0	2	0	*12*
8:45 AM	2	9	1	0	*12*	1	0	0	0	*1*	3	0	1	1	*5*
Peak Hour	15	24	7	0	*46*	6	0	1	0	*7*	32	0	6	3	*41*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	71	1	0	3	138	0	0	2	0	17	0	0	0	0	232	0
7:15 AM	0	0	141	4	0	8	172	0	0	8	0	6	0	0	0	0	339	0
7:30 AM	0	0	167	15	0	12	277	0	0	12	0	18	0	0	0	0	501	0
7:45 AM	0	0	176	13	0	17	281	0	0	10	0	15	0	0	0	0	512	1,584
8:00 AM	**0**	**0**	**226**	**18**	**0**	**13**	**299**	**0**	**0**	**18**	**0**	**20**	**0**	**0**	**0**	**0**	**594**	**1,946**
8:15 AM	**0**	**0**	**316**	**22**	**0**	**18**	**293**	**0**	**0**	**15**	**0**	**28**	**0**	**0**	**0**	**0**	**692**	**2,299**
8:30 AM	**0**	**0**	**175**	**56**	**0**	**27**	**297**	**0**	**0**	**22**	**0**	**32**	**0**	**0**	**0**	**0**	**609**	**2,407**
8:45 AM	**0**	**0**	**203**	**18**	**0**	**13**	**301**	**0**	**0**	**20**	**0**	**10**	**0**	**0**	**0**	**0**	**565**	**2,460**
Count Total	0	0	1,475	147	0	111	2,058	0	0	107	0	146	0	0	0	0	4,044	
Pk Hr All	**0**	**0**	**920**	**114**	**0**	**71**	**1,190**	**0**	**0**	**75**	**0**	**90**	**0**	**0**	**0**	**0**	**2,460**	
Pk Hr HV	**0**	**0**	**13**	**2**	**0**	**2**	**22**	**0**	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**46**	
Pk Hr HV%	**-**	**-**	**1%**	**2%**	**-**	**3%**	**2%**	**-**	**-**	**3%**	**-**	**6%**	**-**	**-**	**-**	**-**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	2	2	1	0	*5*	0	0	0	0	*0*	3	0	3	0	*6*
7:15 AM	4	9	0	0	*13*	0	0	0	0	*0*	4	0	3	0	*7*
7:30 AM	5	6	1	0	*12*	0	0	0	0	*0*	4	0	1	2	*7*
7:45 AM	3	6	0	0	*9*	0	0	0	0	*0*	4	0	2	2	*8*
8:00 AM	**1**	**7**	**2**	**0**	**10**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**5**
8:15 AM	**6**	**5**	**3**	**0**	**14**	**2**	**0**	**1**	**0**	**3**	**17**	**0**	**2**	**0**	**19**
8:30 AM	**6**	**3**	**1**	**0**	**10**	**2**	**0**	**0**	**0**	**2**	**10**	**0**	**2**	**0**	**12**
8:45 AM	**2**	**9**	**1**	**0**	**12**	**1**	**0**	**0**	**0**	**1**	**3**	**0**	**1**	**1**	**5**
Count Total	29	47	9	0	*85*	6	0	1	0	*7*	47	0	15	7	*69*
Peak Hour	**15**	**24**	**7**	**0**	***46***	**6**	**0**	**1**	**0**	***7***	**32**	**0**	**6**	**3**	**41**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	2	0	0	0	2	0	0	0	0	1	0	0	0	0	5	0
7:15 AM	0	0	4	0	0	1	8	0	0	0	0	0	0	0	0	0	13	0
7:30 AM	0	0	5	0	0	0	6	0	0	0	0	1	0	0	0	0	12	0
7:45 AM	0	0	3	0	0	1	5	0	0	0	0	0	0	0	0	0	9	39
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**7**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**44**
8:15 AM	**0**	**0**	**5**	**1**	**0**	**1**	**4**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**14**	**45**
8:30 AM	**0**	**0**	**5**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**43**
8:45 AM	**0**	**0**	**2**	**0**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**12**	**46**
Count Total	0	0	27	2	0	4	43	0	0	2	0	7	0	0	0	0	85	
Pk Hr Heavy	**0**	**0**	**13**	**2**	**0**	**2**	**22**	**0**	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**46**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
8:15 AM	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**4**
8:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**6**
8:45 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**
Count Total	0	0	4	2	0	0	0	0	0	0	0	1	0	0	0	0	7	
Pk Hr Bike	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	

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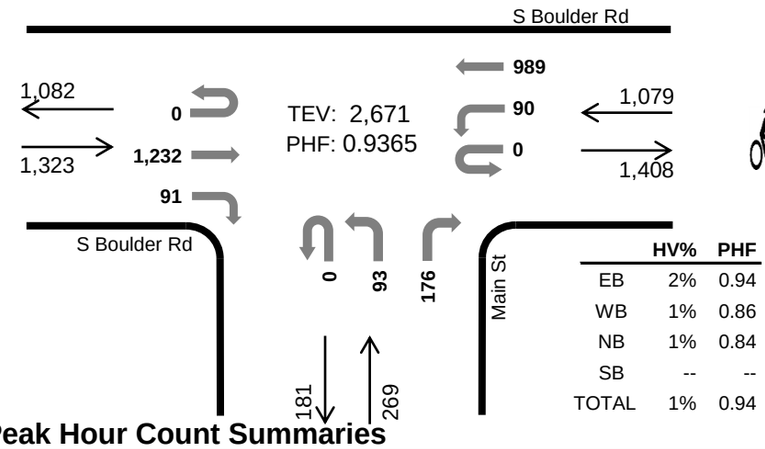
Main St
S Boulder Rd

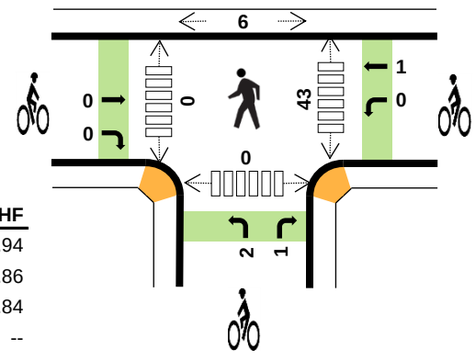
N

Peak Hour

Date:	**11/5/2024**
Count Period:	**4:00 PM to 6:00 PM**
Peak Hour:	**4:30 PM to 5:30 PM**



	HV%	PHF
EB	2%	0.94
WB	1%	0.86
NB	1%	0.84
SB	--	--
TOTAL	1%	0.94



Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	0	294	27	0	17	230	0	0	27	0	45	0	0	0	0	640	0
4:45 PM		0	0	327	24	0	18	239	0	0	26	0	47	0	0	0	0	681	0
5:00 PM		0	0	294	24	0	29	286	0	0	25	0	55	0	0	0	0	713	0
5:15 PM		0	0	317	16	0	26	234	0	0	15	0	29	0	0	0	0	637	2,671
Pk Hr	All	0	0	1,232	91	0	90	989	0	0	93	0	176	0	0	0	0	2,671	
	HV	0	0	20	0	0	2	6	0	0	1	0	3	0	0	0	0	32	
	HV%	-	-	2%	0%	-	2%	1%	-	-	1%	-	2%	-	-	-	-	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	9	3	1	0	*13*	0	0	2	0	*2*	9	0	2	0	*11*
4:45 PM	5	1	1	0	*7*	0	0	0	0	*0*	16	0	1	0	*17*
5:00 PM	2	1	2	0	*5*	0	0	0	0	*0*	11	0	2	0	*13*
5:15 PM	4	3	0	0	*7*	0	1	1	0	*2*	7	0	1	0	*8*
Peak Hour	20	8	4	0	*32*	0	1	3	0	*4*	43	0	6	0	*49*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	355	28	0	18	251	0	0	21	0	40	0	0	0	0	713	0
4:15 PM	0	0	252	20	0	16	257	0	0	13	0	30	0	0	0	0	588	0
4:30 PM	**0**	**0**	**294**	**27**	**0**	**17**	**230**	**0**	**0**	**27**	**0**	**45**	**0**	**0**	**0**	**0**	**640**	**0**
4:45 PM	**0**	**0**	**327**	**24**	**0**	**18**	**239**	**0**	**0**	**26**	**0**	**47**	**0**	**0**	**0**	**0**	**681**	**2,622**
5:00 PM	**0**	**0**	**294**	**24**	**0**	**29**	**286**	**0**	**0**	**25**	**0**	**55**	**0**	**0**	**0**	**0**	**713**	**2,622**
5:15 PM	**0**	**0**	**317**	**16**	**0**	**26**	**234**	**0**	**0**	**15**	**0**	**29**	**0**	**0**	**0**	**0**	**637**	**2,671**
5:30 PM	0	0	291	19	0	9	237	0	0	9	0	28	0	0	0	0	593	2,624
5:45 PM	0	0	269	24	0	16	223	0	0	14	0	26	0	0	0	0	572	2,515
Count Total	0	0	2,399	182	0	149	1,957	0	0	150	0	300	0	0	0	0	5,137	
Pk Hr All	**0**	**0**	**1,232**	**91**	**0**	**90**	**989**	**0**	**0**	**93**	**0**	**176**	**0**	**0**	**0**	**0**	**2,671**	
Pk Hr HV	**0**	**0**	**20**	**0**	**0**	**2**	**6**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**32**	
Pk Hr HV%	**-**	**-**	**2%**	**0%**	**-**	**2%**	**1%**	**-**	**-**	**1%**	**-**	**2%**	**-**	**-**	**-**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	2	4	1	0	*7*	0	0	1	0	*1*	5	0	1	1	*7*
4:15 PM	6	3	1	0	*10*	0	0	0	0	*0*	8	0	2	0	*10*
4:30 PM	**9**	**3**	**1**	**0**	**13**	**0**	**0**	**2**	**0**	**2**	**9**	**0**	**2**	**0**	**11**
4:45 PM	**5**	**1**	**1**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**1**	**0**	**17**
5:00 PM	**2**	**1**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**2**	**0**	**13**
5:15 PM	**4**	**3**	**0**	**0**	**7**	**0**	**1**	**1**	**0**	**2**	**7**	**0**	**1**	**0**	**8**
5:30 PM	2	1	0	0	*3*	0	0	0	0	*0*	5	0	2	0	*7*
5:45 PM	2	2	1	0	*5*	0	0	0	0	*0*	5	0	1	0	*6*
Count Total	32	18	7	0	*57*	0	1	4	0	*5*	66	0	12	1	*79*
Peak Hour	**20**	**8**	**4**	**0**	***32***	**0**	**1**	**3**	**0**	***4***	**43**	**0**	**6**	**0**	**49**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	0	4	0	0	0	0	1	0	0	0	0	7	0
4:15 PM	0	0	5	1	0	1	2	0	0	0	0	1	0	0	0	0	10	0
4:30 PM	**0**	**0**	**9**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**
4:45 PM	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**37**
5:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**5**	**35**
5:15 PM	**0**	**0**	**4**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**32**
5:30 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	22
5:45 PM	0	0	1	1	0	1	1	0	0	0	0	1	0	0	0	0	5	20
Count Total	0	0	30	2	0	4	14	0	0	1	0	6	0	0	0	0	57	
Pk Hr Heavy	**0**	**0**	**20**	**0**	**0**	**2**	**6**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**32**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**4**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	1	0	0	3	0	1	0	0	0	0	5	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	

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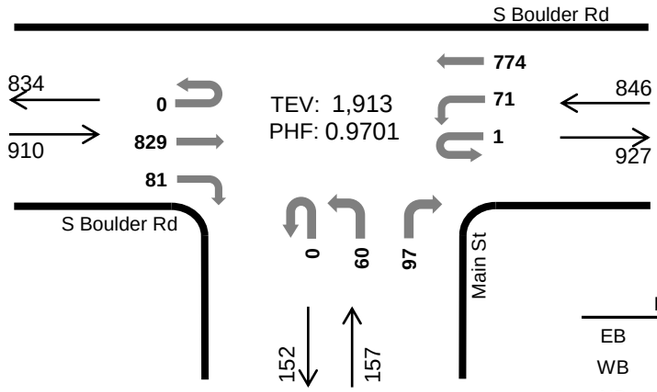
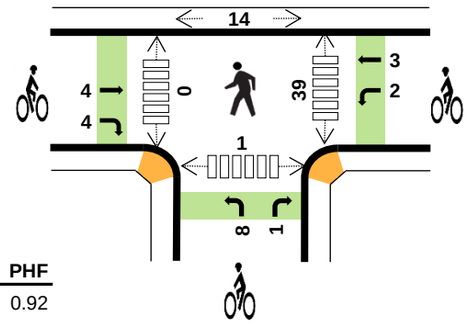
Main St
S Boulder Rd

N

Peak Hour

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM





	HV%	PHF
EB	1%	0.92
WB	1%	0.90
NB	2%	0.74
SB	--	--
TOTAL	1%	0.97

Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:15 AM		0	0	206	15	1	17	173	0	0	16	0	26	0	0	0	0	454	0
11:30 AM		0	0	198	19	0	23	211	0	0	14	0	19	0	0	0	0	484	0
11:45 AM		0	0	219	28	0	20	197	0	0	8	0	21	0	0	0	0	493	0
12:00 PM		0	0	206	19	0	11	193	0	0	22	0	31	0	0	0	0	482	1,913
Pk Hr	All	0	0	829	81	1	71	774	0	0	60	0	97	0	0	0	0	1,913	
	HV	0	0	11	1	0	4	6	0	0	0	0	3	0	0	0	0	25	
	HV%	-	-	1%	1%	0%	6%	1%	-	-	0%	-	3%	-	-	-	-	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:15 AM	2	7	1	0	*10*	3	0	3	0	*6*	12	0	2	0	*14*
11:30 AM	3	0	1	0	*4*	0	3	0	0	*3*	4	0	3	1	*8*
11:45 AM	5	2	0	0	*7*	2	0	5	0	*7*	9	0	3	0	*12*
12:00 PM	2	1	1	0	*4*	3	2	1	0	*6*	14	0	6	0	*20*
Peak Hour	12	10	3	0	*25*	8	5	9	0	*22*	39	0	14	1	*54*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	164	7	0	24	195	0	0	15	0	29	0	0	0	0	434	0
11:15 AM	**0**	**0**	**206**	**15**	**1**	**17**	**173**	**0**	**0**	**16**	**0**	**26**	**0**	**0**	**0**	**0**	**454**	**0**
11:30 AM	**0**	**0**	**198**	**19**	**0**	**23**	**211**	**0**	**0**	**14**	**0**	**19**	**0**	**0**	**0**	**0**	**484**	**0**
11:45 AM	**0**	**0**	**219**	**28**	**0**	**20**	**197**	**0**	**0**	**8**	**0**	**21**	**0**	**0**	**0**	**0**	**493**	**1,865**
12:00 PM	**0**	**0**	**206**	**19**	**0**	**11**	**193**	**0**	**0**	**22**	**0**	**31**	**0**	**0**	**0**	**0**	**482**	**1,913**
12:15 PM	0	0	188	21	0	13	166	0	0	13	0	22	0	0	0	0	423	1,882
12:30 PM	0	0	183	17	2	14	181	0	0	14	0	26	0	0	0	0	437	1,835
12:45 PM	0	0	194	17	1	20	191	0	0	23	0	28	0	0	0	0	474	1,816
Count Total	0	0	1,558	143	4	142	1,507	0	0	125	0	202	0	0	0	0	3,681	
Pk Hr All	**0**	**0**	**829**	**81**	**1**	**71**	**774**	**0**	**0**	**60**	**0**	**97**	**0**	**0**	**0**	**0**	**1,913**	
Pk Hr HV	**0**	**0**	**11**	**1**	**0**	**4**	**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**25**	
Pk Hr HV%	**-**	**-**	**1%**	**1%**	**0%**	**6%**	**1%**	**-**	**-**	**0%**	**-**	**3%**	**-**	**-**	**-**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	4	1	0	*5*	0	0	0	0	*0*	4	0	2	0	*6*
11:15 AM	**2**	**7**	**1**	**0**	**10**	**3**	**0**	**3**	**0**	**6**	**12**	**0**	**2**	**0**	**14**
11:30 AM	**3**	**0**	**1**	**0**	**4**	**0**	**3**	**0**	**0**	**3**	**4**	**0**	**3**	**1**	**8**
11:45 AM	**5**	**2**	**0**	**0**	**7**	**2**	**0**	**5**	**0**	**7**	**9**	**0**	**3**	**0**	**12**
12:00 PM	**2**	**1**	**1**	**0**	**4**	**3**	**2**	**1**	**0**	**6**	**14**	**0**	**6**	**0**	**20**
12:15 PM	1	1	0	0	*2*	0	0	0	0	*0*	6	0	3	0	*9*
12:30 PM	4	0	1	0	*5*	4	1	0	0	*5*	14	0	2	0	*16*
12:45 PM	1	3	0	0	*4*	3	0	1	0	*4*	9	0	3	0	*12*
Count Total	18	18	5	0	*41*	15	6	10	0	*31*	72	0	24	1	*97*
Peak Hour	**12**	**10**	**3**	**0**	***25***	**8**	**5**	**9**	**0**	***22***	**39**	**0**	**14**	**1**	**54**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	5	0
11:15 AM	**0**	**0**	**2**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**0**
11:30 AM	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**0**
11:45 AM	**0**	**0**	**4**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**26**
12:00 PM	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**25**
12:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	17
12:30 PM	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	5	18
12:45 PM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	4	15
Count Total	0	0	17	1	0	5	13	0	0	0	0	5	0	0	0	0	41	
Pk Hr Heavy	**0**	**0**	**11**	**1**	**0**	**4**	**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**25**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Main St				n/a				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**
11:45 AM	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**16**
12:00 PM	**0**	**0**	**1**	**2**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**22**
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
12:30 PM	0	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	5	18
12:45 PM	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	4	15
Count Total	0	0	9	6	0	2	4	0	0	8	0	2	0	0	0	0	31	
Pk Hr Bike	**0**	**0**	**4**	**4**	**0**	**2**	**3**	**0**	**0**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**22**	

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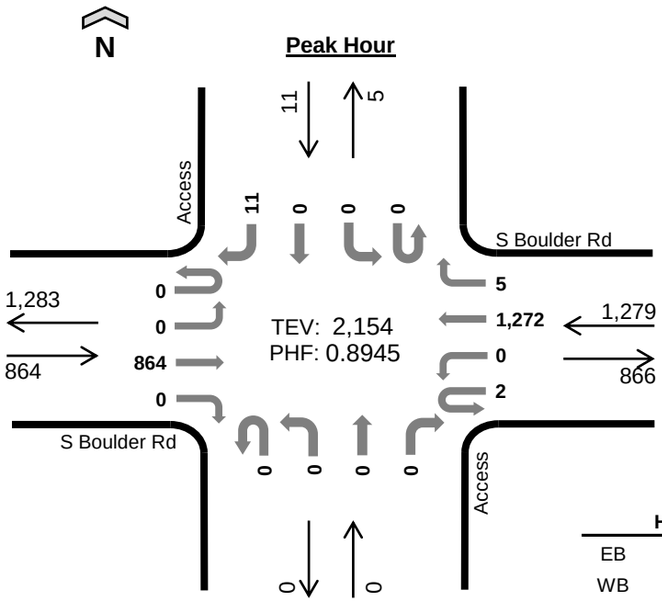
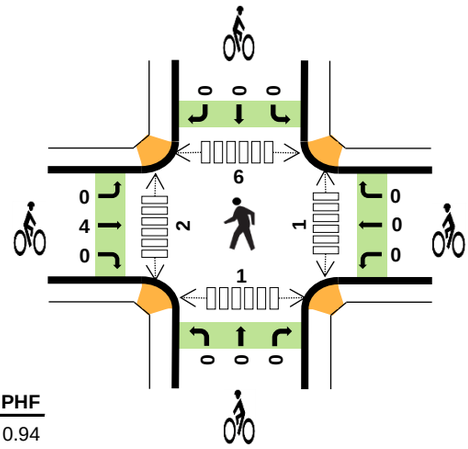
Access
S Boulder Rd

Date: 11/12/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV%	PHF
EB	2%	0.94
WB	2%	0.87
NB	--	--
SB	0%	0.55
TOTAL	2%	0.89

Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	0	201	0	2	0	292	2	0	0	0	0	0	0	0	4	501	0
8:00 AM		0	0	204	0	0	0	310	1	0	0	0	0	0	0	0	0	515	0
8:15 AM		0	0	228	0	0	0	303	0	0	0	0	0	0	0	0	5	536	0
8:30 AM		0	0	231	0	0	0	367	2	0	0	0	0	0	0	0	2	602	2,154
Pk Hr	All	0	0	864	0	2	0	1,272	5	0	0	0	0	0	0	0	11	2,154	
	HV	0	0	17	0	0	0	31	0	0	0	0	0	0	0	0	0	48	
	HV%	-	-	2%	-	0%	-	2%	0%	-	-	-	-	-	-	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:45 AM	5	8	0	0	*13*	0	0	0	0	*0*	0	0	1	0	*1*
8:00 AM	1	4	0	0	*5*	1	0	0	0	*1*	0	0	1	0	*1*
8:15 AM	4	12	0	0	*16*	2	0	0	0	*2*	1	1	2	0	*4*
8:30 AM	7	7	0	0	*14*	1	0	0	0	*1*	0	1	2	1	*4*
Peak Hour	17	31	0	0	*48*	4	0	0	0	*4*	1	2	6	1	*10*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	81	0	0	0	127	0	0	0	0	1	0	0	0	0	209	0
7:15 AM	0	0	136	0	0	0	177	1	0	0	0	0	0	0	0	0	314	0
7:30 AM	0	0	148	0	0	0	283	0	0	0	0	0	0	0	0	2	433	0
7:45 AM	**0**	**0**	**201**	**0**	**2**	**0**	**292**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**501**	**1,457**
8:00 AM	**0**	**0**	**204**	**0**	**0**	**0**	**310**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**515**	**1,763**
8:15 AM	**0**	**0**	**228**	**0**	**0**	**0**	**303**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**536**	**1,985**
8:30 AM	**0**	**0**	**231**	**0**	**0**	**0**	**367**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**602**	**2,154**
8:45 AM	0	0	188	0	1	1	298	3	0	0	0	0	0	0	0	2	493	2,146
Count Total	0	0	1,417	0	3	1	2,157	9	0	0	0	1	0	0	0	15	3,603	
Pk Hr All	**0**	**0**	**864**	**0**	**2**	**0**	**1,272**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**2,154**	
Pk Hr HV	**0**	**0**	**17**	**0**	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	
Pk Hr HV%	**-**	**-**	**2%**	**-**	**0%**	**-**	**2%**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	3	5	0	0	*8*	1	0	0	0	*1*	0	0	1	1	*2*
7:15 AM	2	9	0	0	*11*	1	0	0	0	*1*	0	0	1	0	*1*
7:30 AM	6	6	0	0	*12*	0	0	0	0	*0*	0	0	1	0	*1*
7:45 AM	**5**	**8**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
8:00 AM	**1**	**4**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
8:15 AM	**4**	**12**	**0**	**0**	**16**	**2**	**0**	**0**	**0**	**2**	**1**	**1**	**2**	**0**	**4**
8:30 AM	**7**	**7**	**0**	**0**	**14**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**2**	**1**	**4**
8:45 AM	2	6	0	0	*8*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	30	57	0	0	*87*	6	0	0	0	*6*	1	2	10	2	*15*
Peak Hour	**17**	**31**	**0**	**0**	***48***	**4**	**0**	**0**	**0**	***4***	**1**	**2**	**6**	**1**	**10**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	0
7:15 AM	0	0	2	0	0	0	9	0	0	0	0	0	0	0	0	0	11	0
7:30 AM	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	12	0
7:45 AM	**0**	**0**	**5**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**44**
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**41**
8:15 AM	**0**	**0**	**4**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**46**
8:30 AM	**0**	**0**	**7**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**48**
8:45 AM	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	8	43
Count Total	0	0	30	0	0	0	57	0	0	0	0	0	0	0	0	0	87	
Pk Hr Heavy	**0**	**0**	**17**	**0**	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**
8:30 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Pk Hr Bike	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	

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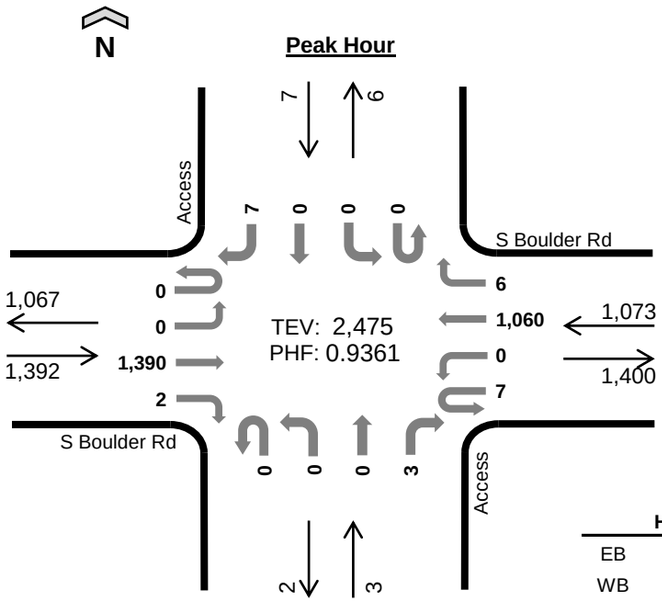
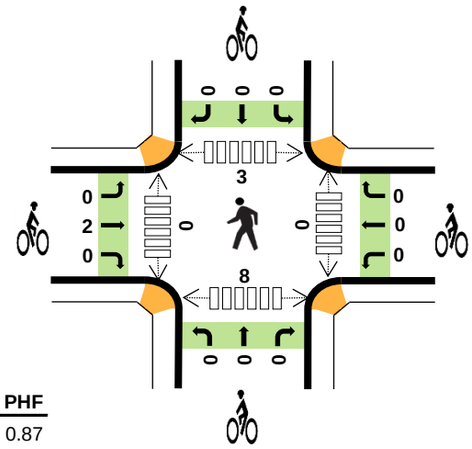
Access
S Boulder Rd

Date: 11/12/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV%	PHF
EB	2%	0.87
WB	1%	0.94
NB	33%	0.38
SB	0%	0.44
TOTAL	2%	0.94

Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM		0	0	318	1	1	0	283	0	0	0	0	1	0	0	0	2	606	0
4:30 PM		0	0	293	0	2	0	264	2	0	0	0	0	0	0	0	0	561	0
4:45 PM		0	0	400	0	1	0	256	3	0	0	0	0	0	0	0	1	661	0
5:00 PM		0	0	379	1	3	0	257	1	0	0	0	2	0	0	0	4	647	2,475
Pk Hr	All	0	0	1,390	2	7	0	1,060	6	0	0	0	3	0	0	0	7	2,475	
	HV	0	0	34	0	0	0	9	0	0	0	0	1	0	0	0	0	44	
	HV%	-	-	2%	0%	0%	-	1%	0%	-	-	-	33%	-	-	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:15 PM	16	1	0	0	*17*	1	0	0	0	*1*	0	0	1	3	*4*
4:30 PM	11	2	0	0	*13*	1	0	0	0	*1*	0	0	1	0	*1*
4:45 PM	5	1	0	0	*6*	0	0	0	0	*0*	0	0	1	0	*1*
5:00 PM	2	5	1	0	*8*	0	0	0	0	*0*	0	0	0	5	*5*
Peak Hour	34	9	1	0	*44*	2	0	0	0	*2*	0	0	3	8	*11*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	352	0	0	2	238	0	0	0	0	2	0	0	0	2	596	0
4:15 PM	**0**	**0**	**318**	**1**	**1**	**0**	**283**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**606**	**0**
4:30 PM	**0**	**0**	**293**	**0**	**2**	**0**	**264**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**561**	**0**
4:45 PM	**0**	**0**	**400**	**0**	**1**	**0**	**256**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**661**	**2,424**
5:00 PM	**0**	**0**	**379**	**1**	**3**	**0**	**257**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**647**	**2,475**
5:15 PM	0	0	331	3	0	0	250	0	0	0	0	3	0	0	0	0	587	2,456
5:30 PM	0	0	294	0	0	0	231	0	0	0	0	0	0	0	0	2	527	2,422
5:45 PM	0	0	261	1	0	0	208	3	0	0	0	0	0	0	0	4	477	2,238
Count Total	0	0	2,628	6	7	2	1,987	9	0	0	0	8	0	0	0	15	4,662	
Pk Hr All	**0**	**0**	**1,390**	**2**	**7**	**0**	**1,060**	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**7**	**2,475**	
Pk Hr HV	**0**	**0**	**34**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**44**	
Pk Hr HV%	**-**	**-**	**2%**	**0%**	**0%**	**-**	**1%**	**0%**	**-**	**-**	**-**	**33%**	**-**	**-**	**-**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	11	6	0	0	*17*	0	1	0	0	*1*	1	1	1	0	*3*
4:15 PM	**16**	**1**	**0**	**0**	**17**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**3**	**4**
4:30 PM	**11**	**2**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
4:45 PM	**5**	**1**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
5:00 PM	**2**	**5**	**1**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**5**
5:15 PM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	1	*1*
5:30 PM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	1	0	*1*
5:45 PM	3	3	0	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	52	21	1	0	*74*	2	1	0	0	*3*	1	1	5	9	*16*
Peak Hour	**34**	**9**	**1**	**0**	***44***	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**3**	**8**	**11**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	11	0	0	0	6	0	0	0	0	0	0	0	0	0	17	0
4:15 PM	**0**	**0**	**16**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**
4:30 PM	**0**	**0**	**11**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**
4:45 PM	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**53**
5:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**8**	**44**
5:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	30
5:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	21
5:45 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	21
Count Total	0	0	52	0	0	0	21	0	0	0	0	1	0	0	0	0	74	
Pk Hr Heavy	**0**	**0**	**34**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**44**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:30 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	
Pk Hr Bike	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

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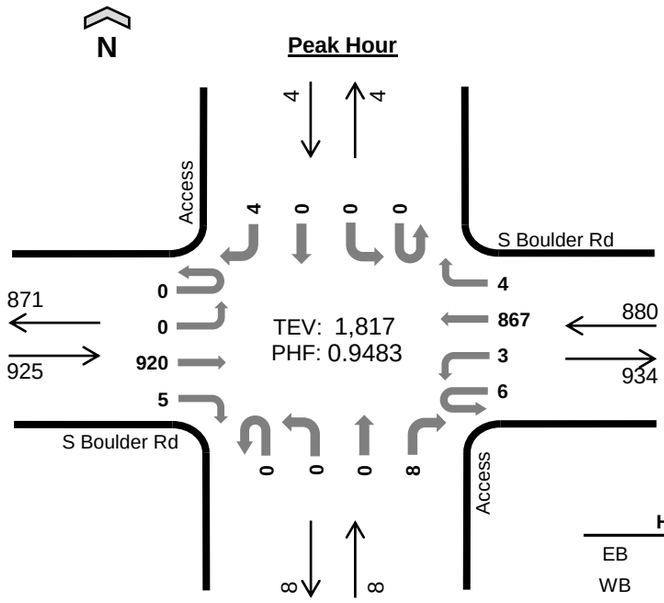
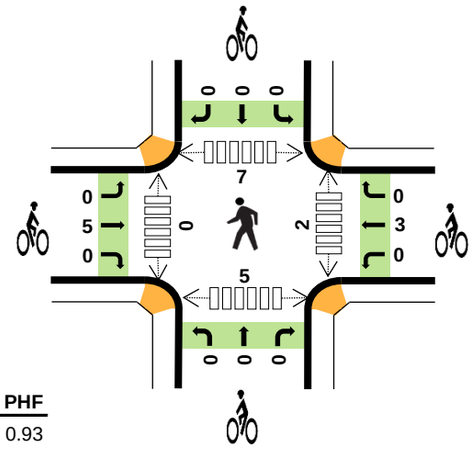
Access
S Boulder Rd

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM





	HV%	PHF
EB	2%	0.93
WB	1%	0.90
NB	0%	0.50
SB	0%	0.25
TOTAL	1%	0.95

Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd Eastbound UT	LT	TH	RT	S Boulder Rd Westbound UT	LT	TH	RT	Access Northbound UT	LT	TH	RT	Access Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
11:15 AM		0	0	246	3	3	0	193	1	0	0	0	4	0	0	0	4	454	0
11:30 AM		0	0	205	1	0	2	242	0	0	0	0	2	0	0	0	0	452	0
11:45 AM		0	0	247	0	2	1	225	3	0	0	0	1	0	0	0	0	479	0
12:00 PM		0	0	222	1	1	0	207	0	0	0	0	1	0	0	0	0	432	1,817
Pk Hr	All	0	0	920	5	6	3	867	4	0	0	0	8	0	0	0	4	1,817	
	HV	0	0	14	0	0	0	10	0	0	0	0	0	0	0	0	0	24	
	HV%	-	-	2%	0%	0%	0%	1%	0%	-	-	-	0%	-	-	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
11:15 AM	3	7	0	0	*10*	2	0	0	0	*2*	0	0	2	0	*2*
11:30 AM	4	0	0	0	*4*	0	3	0	0	*3*	0	0	0	2	*2*
11:45 AM	4	2	0	0	*6*	1	0	0	0	*1*	0	0	4	1	*5*
12:00 PM	3	1	0	0	*4*	2	0	0	0	*2*	2	0	1	2	*5*
Peak Hour	14	10	0	0	*24*	5	3	0	0	*8*	2	0	7	5	*14*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	182	3	2	1	225	1	0	0	0	2	0	0	0	1	417	0
11:15 AM	**0**	**0**	**246**	**3**	**3**	**0**	**193**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**4**	**454**	**0**
11:30 AM	**0**	**0**	**205**	**1**	**0**	**2**	**242**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**452**	**0**
11:45 AM	**0**	**0**	**247**	**0**	**2**	**1**	**225**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**479**	**1,802**
12:00 PM	**0**	**0**	**222**	**1**	**1**	**0**	**207**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**432**	**1,817**
12:15 PM	0	0	221	1	0	1	184	1	0	0	0	1	0	0	0	1	410	1,773
12:30 PM	0	0	206	0	0	1	232	1	0	0	0	2	0	0	0	3	445	1,766
12:45 PM	0	0	222	1	0	1	207	1	0	0	0	0	0	0	0	0	432	1,719
Count Total	0	0	1,751	10	8	7	1,715	8	0	0	0	13	0	0	0	9	3,521	
Pk Hr All	**0**	**0**	**920**	**5**	**6**	**3**	**867**	**4**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**4**	**1,817**	
Pk Hr HV	**0**	**0**	**14**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	
Pk Hr HV%	**-**	**-**	**2%**	**0%**	**0%**	**0%**	**1%**	**0%**	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	1	4	0	0	*5*	0	0	0	0	*0*	0	0	1	0	*1*
11:15 AM	**3**	**7**	**0**	**0**	**10**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**	**2**
11:30 AM	**4**	**0**	**0**	**0**	**4**	**0**	**3**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**2**
11:45 AM	**4**	**2**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**1**	**5**
12:00 PM	**3**	**1**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**2**	**2**	**0**	**1**	**2**	**5**
12:15 PM	1	2	0	0	*3*	1	0	0	0	*1*	0	0	1	0	*1*
12:30 PM	5	1	0	0	*6*	2	1	0	0	*3*	0	0	3	0	*3*
12:45 PM	1	2	0	0	*3*	3	0	0	0	*3*	0	0	1	0	*1*
Count Total	22	19	0	0	*41*	11	4	0	0	*15*	2	0	13	5	*20*
Peak Hour	**14**	**10**	**0**	**0**	***24***	**5**	**3**	**0**	**0**	***8***	**2**	**0**	**7**	**5**	**14**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
11:15 AM	**0**	**0**	**3**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**
11:30 AM	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**
11:45 AM	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**25**
12:00 PM	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**24**
12:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	17
12:30 PM	0	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	6	19
12:45 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	16
Count Total	0	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0	41	
Pk Hr Heavy	**0**	**0**	**14**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Access				Access				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**
11:45 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**6**
12:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
12:30 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	7
12:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9
Count Total	0	0	11	0	0	0	4	0	0	0	0	0	0	0	0	0	15	
Pk Hr Bike	**0**	**0**	**5**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	

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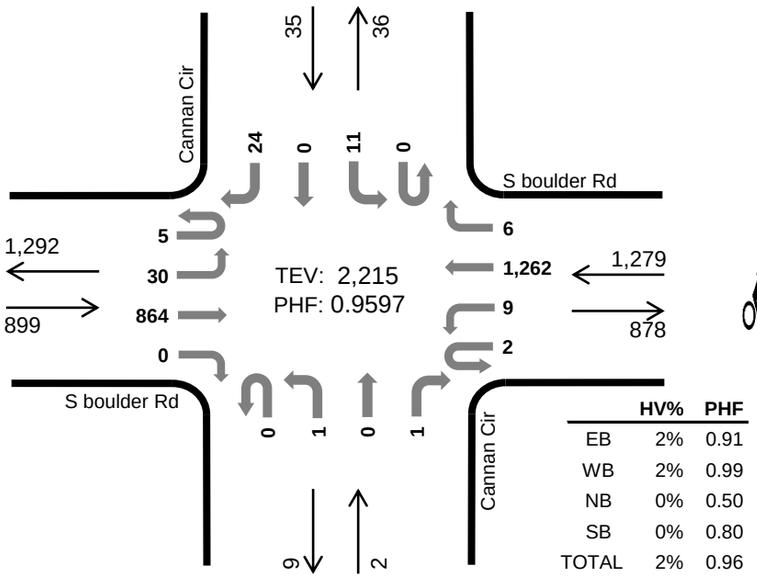
Cannan Cir
S boulder Rd

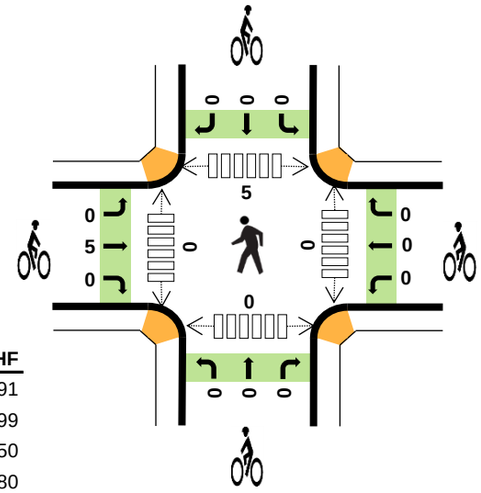
Date: 11/5/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

N

Peak Hour



	HV%	PHF
EB	2%	0.91
WB	2%	0.99
NB	0%	0.50
SB	0%	0.80
TOTAL	2%	0.96



Peak Hour Count Summaries

Peak Hour Interval Start		S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		1	3	239	0	0	1	314	2	0	0	0	0	0	5	0	5	570	0
8:15 AM		2	6	239	0	0	0	321	1	0	0	0	0	0	0	0	8	577	0
8:30 AM		1	6	199	0	1	3	315	2	0	0	0	1	0	1	0	5	534	0
8:45 AM		1	15	187	0	1	5	312	1	0	1	0	0	0	5	0	6	534	2,215
Pk Hr	All	5	30	864	0	2	9	1,262	6	0	1	0	1	0	11	0	24	2,215	
	HV	0	0	20	0	0	1	21	0	0	0	0	0	0	0	0	0	42	
	HV%	0%	0%	2%	-	0%	11%	2%	0%	-	0%	-	0%	-	0%	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	3	5	0	0	*8*	1	0	0	0	*1*	0	0	2	0	*2*
8:15 AM	7	4	0	0	*11*	2	0	0	0	*2*	0	0	0	0	*0*
8:30 AM	4	3	0	0	*7*	2	0	0	0	*2*	0	0	0	0	*0*
8:45 AM	6	10	0	0	*16*	0	0	0	0	*0*	0	0	3	0	*3*
Peak Hour	20	22	0	0	*42*	5	0	0	0	*5*	0	0	5	0	*5*

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Count Summaries - All Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	1	4	87	0	0	0	139	1	0	0	0	1	0	6	0	12	251	0
7:15 AM	1	3	135	0	0	0	174	2	0	0	0	0	0	2	0	7	324	0
7:30 AM	2	3	173	0	1	2	273	1	0	0	0	0	0	3	0	5	463	0
7:45 AM	2	6	176	0	0	2	299	3	0	0	0	0	0	2	0	10	500	1,538
8:00 AM	**1**	**3**	**239**	**0**	**0**	**1**	**314**	**2**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**5**	**570**	**1,857**
8:15 AM	**2**	**6**	**239**	**0**	**0**	**0**	**321**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**577**	**2,110**
8:30 AM	**1**	**6**	**199**	**0**	**1**	**3**	**315**	**2**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**5**	**534**	**2,181**
8:45 AM	**1**	**15**	**187**	**0**	**1**	**5**	**312**	**1**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**6**	**534**	**2,215**
Count Total	11	46	1,435	0	3	13	2,147	13	0	1	0	2	0	24	0	58	3,753	
Pk Hr All	**5**	**30**	**864**	**0**	**2**	**9**	**1,262**	**6**	**0**	**1**	**0**	**1**	**0**	**11**	**0**	**24**	**2,215**	
Pk Hr HV	**0**	**0**	**20**	**0**	**0**	**1**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**42**	
Pk Hr HV%	**0%**	**0%**	**2%**	**-**	**0%**	**11%**	**2%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	3	3	0	0	*6*	0	0	0	0	*0*	0	1	0	0	*1*
7:15 AM	3	9	0	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	6	0	0	0	*6*	0	0	0	0	*0*	0	0	2	1	*3*
7:45 AM	3	5	0	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**3**	**5**	**0**	**0**	**8**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**2**
8:15 AM	**7**	**4**	**0**	**0**	**11**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**4**	**3**	**0**	**0**	**7**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**6**	**10**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**
Count Total	35	39	0	0	*74*	5	0	0	0	*5*	0	1	7	1	*9*
Peak Hour	**20**	**22**	**0**	**0**	***42***	**5**	**0**	**0**	**0**	***5***	**0**	**0**	**5**	**0**	**5**

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Count Summaries - Heavy Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
7:15 AM	0	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	12	0
7:30 AM	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
7:45 AM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	32
8:00 AM	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**34**
8:15 AM	**0**	**0**	**7**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**33**
8:30 AM	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**34**
8:45 AM	**0**	**0**	**6**	**0**	**0**	**1**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**42**
Count Total	0	0	35	0	0	1	38	0	0	0	0	0	0	0	0	0	74	
Pk Hr Heavy	**0**	**0**	**20**	**0**	**0**	**1**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**42**	

Count Summaries - Bikes

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
8:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**
8:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**5**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
Count Total	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Pk Hr Bike	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	

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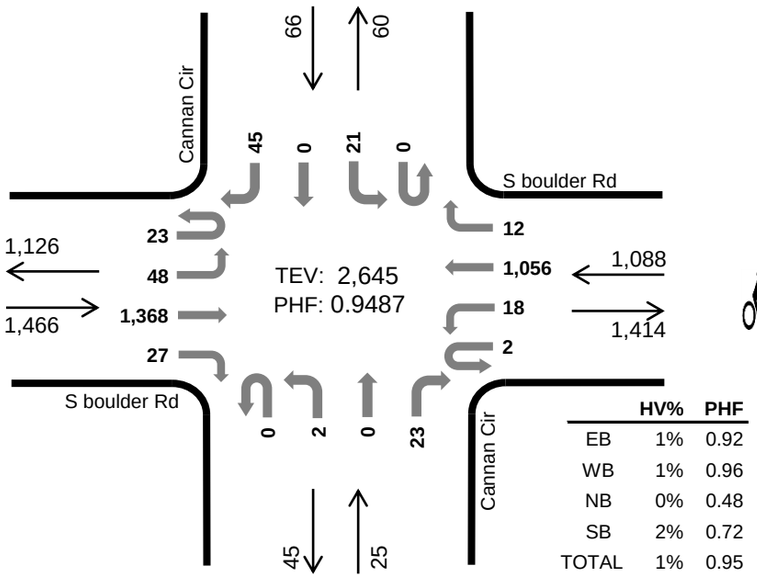
Cannan Cir
S boulder Rd

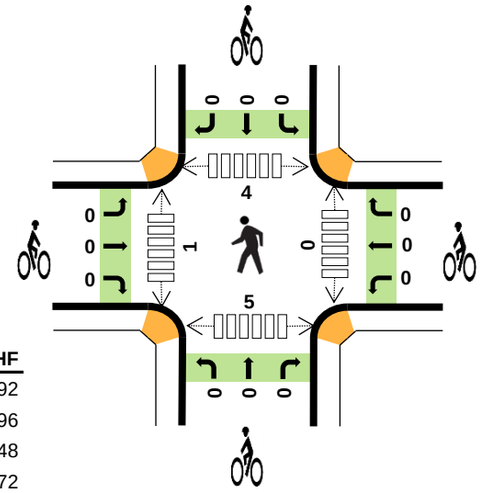
Date: 11/5/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

N

Peak Hour



	HV%	PHF
EB	1%	0.92
WB	1%	0.96
NB	0%	0.48
SB	2%	0.72
TOTAL	1%	0.95



Peak Hour Count Summaries

Peak Hour Interval Start		S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		2	15	372	10	0	8	261	4	0	1	0	3	0	2	0	19	697	0
4:15 PM		5	8	339	8	0	2	280	1	0	1	0	12	0	7	0	6	669	0
4:30 PM		10	11	325	4	0	3	256	5	0	0	0	3	0	5	0	4	626	0
4:45 PM		6	14	332	5	2	5	259	2	0	0	0	5	0	7	0	16	653	2,645
Pk Hr	All	23	48	1,368	27	2	18	1,056	12	0	2	0	23	0	21	0	45	2,645	
	HV	0	0	21	0	0	0	10	0	0	0	0	0	0	0	0	1	32	
	HV%	0%	0%	2%	0%	0%	0%	1%	0%	-	0%	-	0%	-	0%	-	2%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	4	3	0	1	*8*	0	0	0	0	*0*	0	0	1	2	*3*
4:15 PM	6	3	0	0	*9*	0	0	0	0	*0*	0	0	1	0	*1*
4:30 PM	7	3	0	0	*10*	0	0	0	0	*0*	0	0	1	1	*2*
4:45 PM	4	1	0	0	*5*	0	0	0	0	*0*	0	1	1	2	*4*
Peak Hour	21	10	0	1	*32*	0	0	0	0	*0*	0	1	4	5	*10*

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Count Summaries - All Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**2**	**15**	**372**	**10**	**0**	**8**	**261**	**4**	**0**	**1**	**0**	**3**	**0**	**2**	**0**	**19**	**697**	0
4:15 PM	**5**	**8**	**339**	**8**	**0**	**2**	**280**	**1**	**0**	**1**	**0**	**12**	**0**	**7**	**0**	**6**	**669**	**0**
4:30 PM	**10**	**11**	**325**	**4**	**0**	**3**	**256**	**5**	**0**	**0**	**0**	**3**	**0**	**5**	**0**	**4**	**626**	**0**
4:45 PM	**6**	**14**	**332**	**5**	**2**	**5**	**259**	**2**	**0**	**0**	**0**	**5**	**0**	**7**	**0**	**16**	**653**	**2,645**
5:00 PM	10	21	326	5	1	3	286	9	0	0	1	3	0	6	0	14	685	2,633
5:15 PM	4	9	311	3	1	2	250	5	0	3	0	3	0	5	0	24	620	2,584
5:30 PM	7	3	311	5	0	0	236	3	0	2	0	0	0	7	0	6	580	2,538
5:45 PM	4	13	260	0	0	2	212	5	0	1	0	1	0	5	0	14	517	2,402
Count Total	48	94	2,576	40	4	25	2,040	34	0	8	1	30	0	44	0	103	5,047	
Pk Hr All	**23**	**48**	**1,368**	**27**	**2**	**18**	**1,056**	**12**	**0**	**2**	**0**	**23**	**0**	**21**	**0**	**45**	**2,645**	
Pk Hr HV	**0**	**0**	**21**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**32**	
Pk Hr HV%	**0%**	**0%**	**2%**	**0%**	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**2%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**4**	**3**	**0**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**3**
4:15 PM	**6**	**3**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
4:30 PM	**7**	**3**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
4:45 PM	**4**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**	**4**
5:00 PM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	1	*1*
5:15 PM	6	1	0	0	*7*	1	0	0	0	*1*	0	0	0	1	*1*
5:30 PM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	1	0	*1*
5:45 PM	3	1	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	34	15	0	1	*50*	1	0	0	0	*1*	0	1	5	7	*13*
Peak Hour	**21**	**10**	**0**	**1**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**4**	**5**	**10**

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Count Summaries - Heavy Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**8**	0
4:15 PM	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**
4:30 PM	**0**	**0**	**7**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**
4:45 PM	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**32**
5:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	27
5:15 PM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7	25
5:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	19
5:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	18
Count Total	0	0	34	0	0	0	15	0	0	0	0	0	0	0	0	1	50	
Pk Hr Heavy	**0**	**0**	**21**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**32**	

Count Summaries - Bikes

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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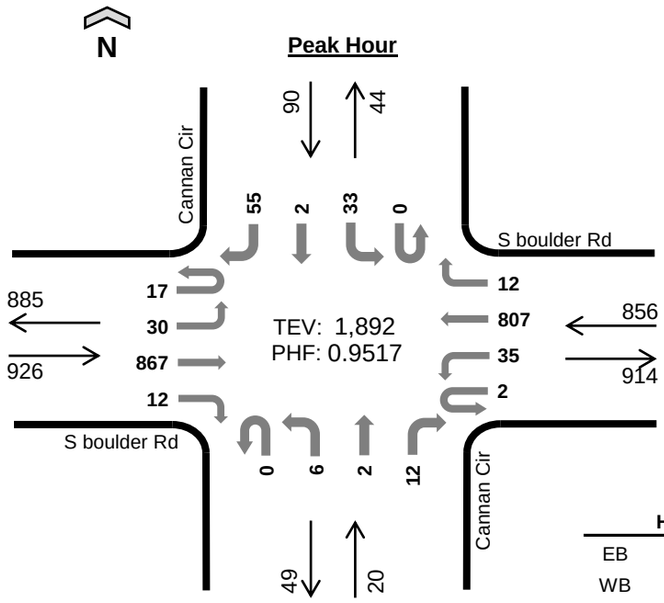
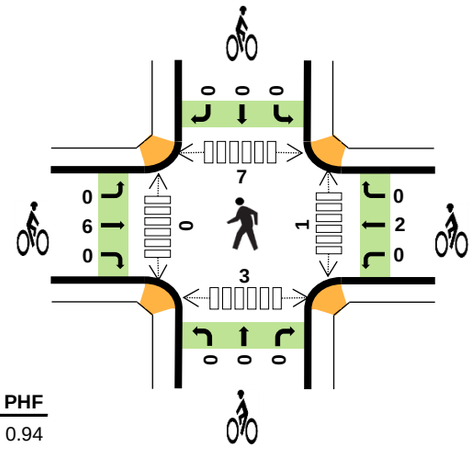
Cannan Cir
S boulder Rd

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM





	HV%	PHF
EB	1%	0.94
WB	1%	0.93
NB	0%	0.83
SB	0%	0.75
TOTAL	1%	0.95

Peak Hour Count Summaries

Peak Hour Interval Start		S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:15 AM		4	9	232	2	1	9	187	4	0	0	1	3	0	10	0	8	470	0
11:30 AM		6	6	193	0	0	8	219	4	0	2	0	3	0	12	1	17	471	0
11:45 AM		4	9	229	4	0	8	212	3	0	2	0	4	0	7	1	14	497	0
12:00 PM		3	6	213	6	1	10	189	1	0	2	1	2	0	4	0	16	454	1,892
Pk Hr	All	17	30	867	12	2	35	807	12	0	6	2	12	0	33	2	55	1,892	
	HV	0	0	13	0	0	0	10	0	0	0	0	0	0	0	0	0	23	
	HV%	0%	0%	1%	0%	0%	0%	1%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:15 AM	2	7	0	0	*9*	3	0	0	0	*3*	0	0	2	0	*2*
11:30 AM	4	0	0	0	*4*	0	2	0	0	*2*	1	0	1	1	*3*
11:45 AM	4	2	0	0	*6*	1	0	0	0	*1*	0	0	0	2	*2*
12:00 PM	3	1	0	0	*4*	2	0	0	0	*2*	0	0	4	0	*4*
Peak Hour	13	10	0	0	*23*	6	2	0	0	*8*	1	0	7	3	*11*

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Count Summaries - All Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	5	5	177	2	0	7	208	3	0	1	0	3	0	11	0	14	436	0
11:15 AM	**4**	**9**	**232**	**2**	**1**	**9**	**187**	**4**	**0**	**0**	**1**	**3**	**0**	**10**	**0**	**8**	**470**	**0**
11:30 AM	**6**	**6**	**193**	**0**	**0**	**8**	**219**	**4**	**0**	**2**	**0**	**3**	**0**	**12**	**1**	**17**	**471**	**0**
11:45 AM	**4**	**9**	**229**	**4**	**0**	**8**	**212**	**3**	**0**	**2**	**0**	**4**	**0**	**7**	**1**	**14**	**497**	**1,874**
12:00 PM	**3**	**6**	**213**	**6**	**1**	**10**	**189**	**1**	**0**	**2**	**1**	**2**	**0**	**4**	**0**	**16**	**454**	**1,892**
12:15 PM	2	7	205	5	0	8	176	4	0	2	0	4	0	0	1	9	423	1,845
12:30 PM	7	5	200	4	0	9	215	2	0	1	0	5	0	5	0	3	456	1,830
12:45 PM	2	7	205	2	1	8	199	5	0	3	0	6	0	2	0	8	448	1,781
Count Total	33	54	1,654	25	3	67	1,605	26	0	13	2	30	0	51	3	89	3,655	
Pk Hr All	**17**	**30**	**867**	**12**	**2**	**35**	**807**	**12**	**0**	**6**	**2**	**12**	**0**	**33**	**2**	**55**	**1,892**	
Pk Hr HV	**0**	**0**	**13**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	
Pk Hr HV%	**0%**	**0%**	**1%**	**0%**	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	1	4	0	0	*5*	1	0	0	0	*1*	0	0	1	1	*2*
11:15 AM	**2**	**7**	**0**	**0**	**9**	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**0**	**2**
11:30 AM	**4**	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**0**	**2**	**1**	**0**	**1**	**1**	**3**
11:45 AM	**4**	**2**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**
12:00 PM	**3**	**1**	**0**	**0**	**4**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**4**	**0**	**4**
12:15 PM	1	2	0	0	*3*	1	0	0	0	*1*	0	0	1	0	*1*
12:30 PM	6	1	0	0	*7*	2	0	0	0	*2*	0	0	3	0	*3*
12:45 PM	1	2	0	0	*3*	3	0	0	0	*3*	0	0	2	0	*2*
Count Total	22	19	0	0	*41*	13	2	0	0	*15*	1	0	14	4	*19*
Peak Hour	**13**	**10**	**0**	**0**	***23***	**6**	**2**	**0**	**0**	***8***	**1**	**0**	**7**	**3**	**11**

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Count Summaries - Heavy Vehicles

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
11:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**
11:30 AM	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**
11:45 AM	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**24**
12:00 PM	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**23**
12:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	17
12:30 PM	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7	20
12:45 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	17
Count Total	0	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0	41	
Pk Hr Heavy	**0**	**0**	**13**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	

Count Summaries - Bikes

Interval Start	S boulder Rd				S boulder Rd				Cannan Cir				Cannan Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
11:45 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**
12:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
12:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6
12:45 PM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	8
Count Total	0	0	12	1	0	0	2	0	0	0	0	0	0	0	0	0	15	
Pk Hr Bike	**0**	**0**	**6**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	

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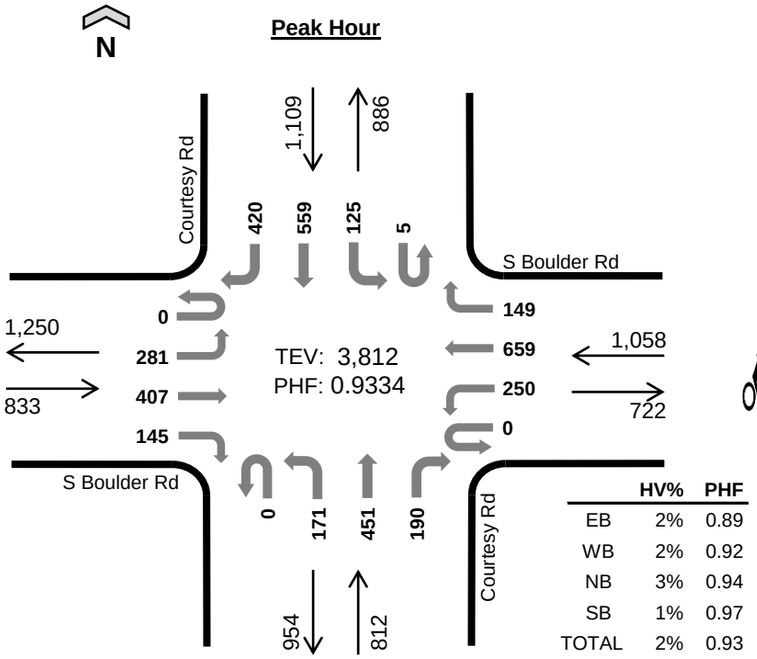
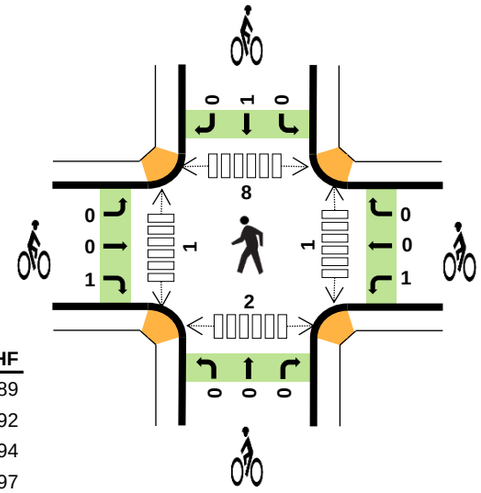
Courtesy Rd
S Boulder Rd

Date: 11/5/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour



	HV%	PHF
EB	2%	0.89
WB	2%	0.92
NB	3%	0.94
SB	1%	0.97
TOTAL	2%	0.93



Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd Eastbound UT	LT	TH	RT	S Boulder Rd Westbound UT	LT	TH	RT	Courtesy Rd Northbound UT	LT	TH	RT	Courtesy Rd Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
7:45 AM		0	56	87	37	0	58	177	24	0	39	99	43	1	14	161	91	887	0
8:00 AM		0	78	115	40	0	49	158	39	0	36	125	45	1	33	146	106	971	0
8:15 AM		0	72	122	38	0	78	173	38	0	55	100	60	2	64	115	104	1,021	0
8:30 AM		0	75	83	30	0	65	151	48	0	41	127	42	1	14	137	119	933	3,812
Pk Hr	All	0	281	407	145	0	250	659	149	0	171	451	190	5	125	559	420	3,812	
	HV	0	6	9	3	0	6	16	2	0	5	20	1	0	6	4	5	83	
	HV%	-	2%	2%	2%	-	2%	2%	1%	-	3%	4%	1%	0%	5%	1%	1%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
7:45 AM	3	8	4	4	*19*	0	0	0	0	*0*	0	0	3	1	*4*
8:00 AM	2	6	8	4	*20*	0	0	0	0	*0*	1	0	3	1	*5*
8:15 AM	8	6	3	4	*21*	0	0	0	1	*1*	0	0	0	0	*0*
8:30 AM	5	4	11	3	*23*	1	1	0	0	*2*	0	1	2	0	*3*
Peak Hour	18	24	26	15	*83*	1	1	0	1	*3*	1	1	8	2	*12*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	34	38	15	0	23	60	13	0	17	47	25	1	14	85	47	419	0
7:15 AM	0	30	93	28	0	42	118	21	0	24	53	26	0	21	120	54	630	0
7:30 AM	0	65	73	38	0	61	131	34	0	30	80	29	0	15	155	110	821	0
7:45 AM	**0**	**56**	**87**	**37**	**0**	**58**	**177**	**24**	**0**	**39**	**99**	**43**	**1**	**14**	**161**	**91**	**887**	**2,757**
8:00 AM	**0**	**78**	**115**	**40**	**0**	**49**	**158**	**39**	**0**	**36**	**125**	**45**	**1**	**33**	**146**	**106**	**971**	**3,309**
8:15 AM	**0**	**72**	**122**	**38**	**0**	**78**	**173**	**38**	**0**	**55**	**100**	**60**	**2**	**64**	**115**	**104**	**1,021**	**3,700**
8:30 AM	**0**	**75**	**83**	**30**	**0**	**65**	**151**	**48**	**0**	**41**	**127**	**42**	**1**	**14**	**137**	**119**	**933**	**3,812**
8:45 AM	0	57	98	39	0	56	162	26	1	65	104	40	1	19	123	96	887	3,812
Count Total	0	467	709	265	0	432	1,130	243	1	307	735	310	7	194	1,042	727	6,569	
Pk Hr All	**0**	**281**	**407**	**145**	**0**	**250**	**659**	**149**	**0**	**171**	**451**	**190**	**5**	**125**	**559**	**420**	**3,812**	
Pk Hr HV	**0**	**6**	**9**	**3**	**0**	**6**	**16**	**2**	**0**	**5**	**20**	**1**	**0**	**6**	**4**	**5**	**83**	
Pk Hr HV%	**-**	**2%**	**2%**	**2%**	**-**	**2%**	**2%**	**1%**	**-**	**3%**	**4%**	**1%**	**0%**	**5%**	**1%**	**1%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	4	4	2	4	*14*	0	0	0	1	*1*	0	0	1	0	*1*
7:15 AM	3	7	3	6	*19*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	6	6	5	5	*22*	0	0	0	0	*0*	0	0	2	0	*2*
7:45 AM	**3**	**8**	**4**	**4**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**4**
8:00 AM	**2**	**6**	**8**	**4**	**20**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**1**	**5**
8:15 AM	**8**	**6**	**3**	**4**	**21**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**5**	**4**	**11**	**3**	**23**	**1**	**1**	**0**	**0**	**2**	**0**	**1**	**2**	**0**	**3**
8:45 AM	3	9	8	3	*23*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	34	50	44	33	*161*	1	1	0	2	*4*	1	1	12	2	*16*
Peak Hour	**18**	**24**	**26**	**15**	***83***	**1**	**1**	**0**	**1**	***3***	**1**	**1**	**8**	**2**	**12**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	2	0	0	0	1	3	0	0	0	2	0	0	2	2	14	0
7:15 AM	0	0	3	0	0	1	6	0	0	0	3	0	0	0	2	4	19	0
7:30 AM	0	2	4	0	0	1	5	0	0	0	4	1	0	1	2	2	22	0
7:45 AM	**0**	**1**	**1**	**1**	**0**	**1**	**6**	**1**	**0**	**0**	**4**	**0**	**0**	**1**	**1**	**2**	**19**	**74**
8:00 AM	**0**	**1**	**0**	**1**	**0**	**1**	**5**	**0**	**0**	**2**	**5**	**1**	**0**	**2**	**1**	**1**	**20**	**80**
8:15 AM	**0**	**2**	**5**	**1**	**0**	**4**	**2**	**0**	**0**	**1**	**2**	**0**	**0**	**2**	**1**	**1**	**21**	**82**
8:30 AM	**0**	**2**	**3**	**0**	**0**	**0**	**3**	**1**	**0**	**2**	**9**	**0**	**0**	**1**	**1**	**1**	**23**	**83**
8:45 AM	0	0	3	0	0	4	3	2	0	3	5	0	0	0	2	1	23	87
Count Total	0	10	21	3	0	12	31	7	0	8	32	4	0	7	12	14	161	
Pk Hr Heavy	**0**	**6**	**9**	**3**	**0**	**6**	**16**	**2**	**0**	**5**	**20**	**1**	**0**	**6**	**4**	**5**	**83**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**
8:30 AM	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	4	
Pk Hr Bike	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	

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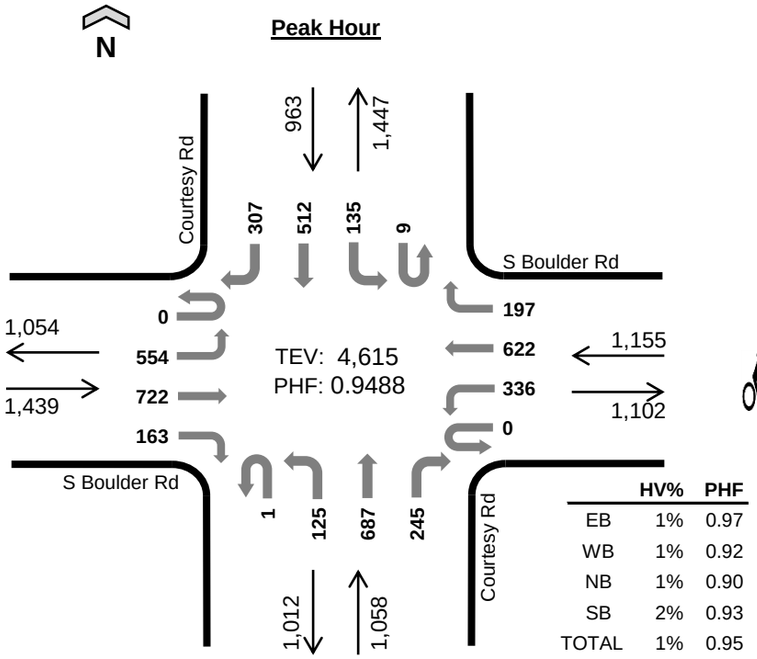
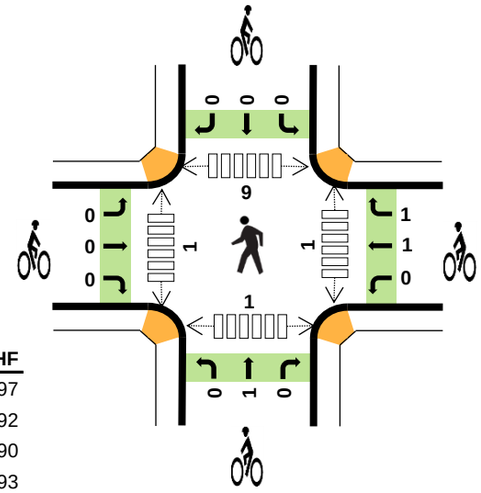
Courtesy Rd
S Boulder Rd

Date: 11/5/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

Peak Hour



	HV%	PHF
EB	1%	0.97
WB	1%	0.92
NB	1%	0.90
SB	2%	0.93
TOTAL	1%	0.95



Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd Eastbound UT	LT	TH	RT	S Boulder Rd Westbound UT	LT	TH	RT	Courtesy Rd Northbound UT	LT	TH	RT	Courtesy Rd Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
4:00 PM		0	140	182	49	0	95	160	57	0	29	173	57	3	35	135	66	1,181	0
4:15 PM		0	139	173	54	0	90	172	53	1	36	196	62	3	31	129	77	1,216	0
4:30 PM		0	133	200	24	0	86	130	43	0	32	166	59	2	35	114	74	1,098	0
4:45 PM		0	142	167	36	0	65	160	44	0	28	152	67	1	34	134	90	1,120	4,615
Pk Hr	All	0	554	722	163	0	336	622	197	1	125	687	245	9	135	512	307	4,615	
	HV	0	7	6	5	0	3	5	0	0	2	8	5	0	4	10	3	58	
	HV%	-	1%	1%	3%	-	1%	1%	0%	0%	2%	1%	2%	0%	3%	2%	1%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
4:00 PM	3	1	5	10	*19*	0	1	0	0	*1*	0	0	1	0	*1*
4:15 PM	5	1	4	4	*14*	0	0	0	0	*0*	0	0	2	0	*2*
4:30 PM	7	4	5	2	*18*	0	1	1	0	*2*	1	1	4	1	*7*
4:45 PM	3	2	1	1	*7*	0	0	0	0	*0*	0	0	2	0	*2*
Peak Hour	18	8	15	17	*58*	0	2	1	0	*3*	1	1	9	1	*12*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**140**	**182**	**49**	**0**	**95**	**160**	**57**	**0**	**29**	**173**	**57**	**3**	**35**	**135**	**66**	**1,181**	0
4:15 PM	**0**	**139**	**173**	**54**	**0**	**90**	**172**	**53**	**1**	**36**	**196**	**62**	**3**	**31**	**129**	**77**	**1,216**	**0**
4:30 PM	**0**	**133**	**200**	**24**	**0**	**86**	**130**	**43**	**0**	**32**	**166**	**59**	**2**	**35**	**114**	**74**	**1,098**	**0**
4:45 PM	**0**	**142**	**167**	**36**	**0**	**65**	**160**	**44**	**0**	**28**	**152**	**67**	**1**	**34**	**134**	**90**	**1,120**	**4,615**
5:00 PM	0	127	176	22	0	75	164	47	1	31	169	72	2	42	166	84	1,178	4,612
5:15 PM	1	121	143	38	0	63	137	38	0	30	163	58	2	64	109	70	1,037	4,433
5:30 PM	1	102	163	37	0	72	119	27	1	36	170	81	1	38	119	60	1,027	4,362
5:45 PM	0	107	126	36	0	63	138	19	0	22	126	68	1	49	116	50	921	4,163
Count Total	2	1,011	1,330	296	0	609	1,180	328	3	244	1,315	524	15	328	1,022	571	8,778	
Pk Hr All	**0**	**554**	**722**	**163**	**0**	**336**	**622**	**197**	**1**	**125**	**687**	**245**	**9**	**135**	**512**	**307**	**4,615**	
Pk Hr HV	**0**	**7**	**6**	**5**	**0**	**3**	**5**	**0**	**0**	**2**	**8**	**5**	**0**	**4**	**10**	**3**	**58**	
Pk Hr HV%	**-**	**1%**	**1%**	**3%**	**-**	**1%**	**1%**	**0%**	**0%**	**2%**	**1%**	**2%**	**0%**	**3%**	**2%**	**1%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**3**	**1**	**5**	**10**	**19**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
4:15 PM	**5**	**1**	**4**	**4**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
4:30 PM	**7**	**4**	**5**	**2**	**18**	**0**	**1**	**1**	**0**	**2**	**1**	**1**	**4**	**1**	**7**
4:45 PM	**3**	**2**	**1**	**1**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
5:00 PM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	1	1	*2*
5:15 PM	6	2	1	4	*13*	0	0	0	0	*0*	1	0	1	0	*2*
5:30 PM	3	1	2	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	3	2	1	1	*7*	0	0	0	0	*0*	0	1	1	0	*2*
Count Total	31	13	20	23	*87*	0	2	1	0	*3*	2	2	12	2	*18*
Peak Hour	**18**	**8**	**15**	**17**	***58***	**0**	**2**	**1**	**0**	***3***	**1**	**1**	**9**	**1**	**12**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**2**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**2**	**0**	**1**	**7**	**2**	**19**	0
4:15 PM	**0**	**1**	**1**	**3**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**2**	**0**	**1**	**2**	**1**	**14**	**0**
4:30 PM	**0**	**5**	**1**	**1**	**0**	**1**	**3**	**0**	**0**	**0**	**4**	**1**	**0**	**2**	**0**	**0**	**18**	**0**
4:45 PM	**0**	**1**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**7**	**58**
5:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	41
5:15 PM	0	2	1	3	0	0	1	1	0	0	1	0	0	0	2	2	13	40
5:30 PM	0	2	0	1	0	1	0	0	0	1	0	1	0	0	1	0	7	29
5:45 PM	0	0	1	2	0	1	1	0	0	0	1	0	0	0	1	0	7	29
Count Total	0	11	9	11	0	5	7	1	0	3	11	6	0	4	14	5	87	
Pk Hr Heavy	**0**	**7**	**6**	**5**	**0**	**3**	**5**	**0**	**0**	**2**	**8**	**5**	**0**	**4**	**10**	**3**	**58**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	3	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	

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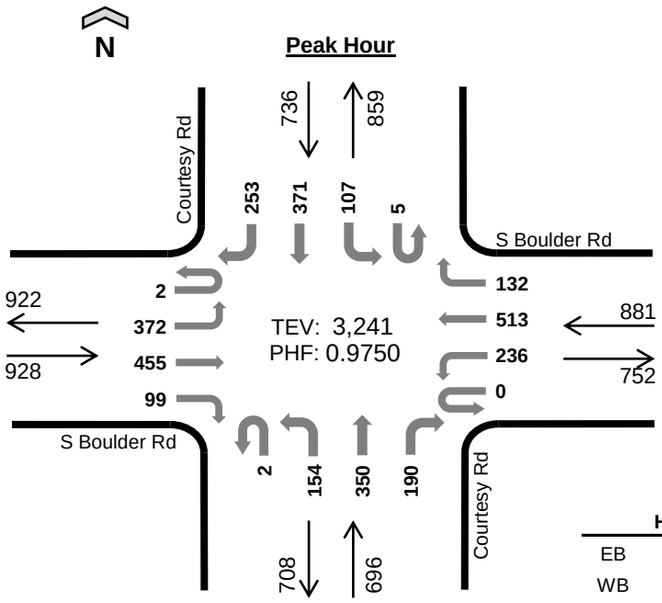
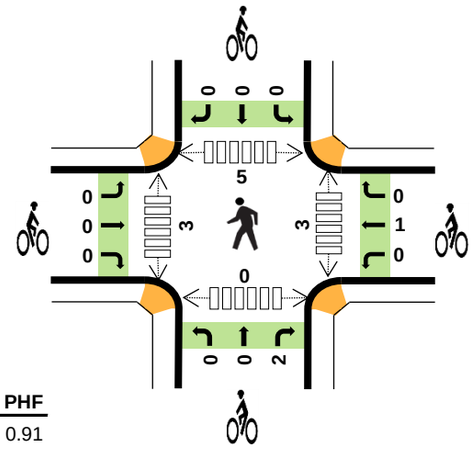
Courtesy Rd
S Boulder Rd

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:30 AM to 12:30 PM





	HV%	PHF
EB	1%	0.91
WB	1%	0.95
NB	1%	0.82
SB	1%	0.89
TOTAL	1%	0.98

Peak Hour Count Summaries

Peak Hour Interval Start		S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM		1	95	103	25	0	52	151	27	0	44	68	38	2	38	87	79	810	0
11:45 AM		1	102	122	29	0	59	134	34	1	37	75	54	0	25	88	59	820	0
12:00 PM		0	84	106	29	0	59	120	52	1	37	119	55	1	24	92	52	831	0
12:15 PM		0	91	124	16	0	66	108	19	0	36	88	43	2	20	104	63	780	3,241
Pk Hr	All	2	372	455	99	0	236	513	132	2	154	350	190	5	107	371	253	3,241	
	HV	0	4	7	0	0	3	4	1	0	0	4	4	0	1	4	2	34	
	HV%	0%	1%	2%	0%	-	1%	1%	1%	0%	0%	1%	2%	0%	1%	1%	1%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:30 AM	3	1	1	2	*7*	0	1	2	0	*3*	0	1	3	0	*4*
11:45 AM	5	2	4	0	*11*	0	0	0	0	*0*	3	0	0	0	*3*
12:00 PM	3	3	2	1	*9*	0	0	0	0	*0*	0	2	2	0	*4*
12:15 PM	0	2	1	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	11	8	8	7	*34*	0	1	2	0	*3*	3	3	5	0	*11*

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Count Summaries - All Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	103	89	32	0	38	118	20	0	37	75	71	1	23	115	84	806	0
11:15 AM	0	110	113	32	0	53	112	23	0	32	97	38	3	14	63	70	760	0
11:30 AM	**1**	**95**	**103**	**25**	**0**	**52**	**151**	**27**	**0**	**44**	**68**	**38**	**2**	**38**	**87**	**79**	**810**	**0**
11:45 AM	**1**	**102**	**122**	**29**	**0**	**59**	**134**	**34**	**1**	**37**	**75**	**54**	**0**	**25**	**88**	**59**	**820**	**3,196**
12:00 PM	**0**	**84**	**106**	**29**	**0**	**59**	**120**	**52**	**1**	**37**	**119**	**55**	**1**	**24**	**92**	**52**	**831**	**3,221**
12:15 PM	**0**	**91**	**124**	**16**	**0**	**66**	**108**	**19**	**0**	**36**	**88**	**43**	**2**	**20**	**104**	**63**	**780**	**3,241**
12:30 PM	0	78	95	27	0	66	117	25	0	32	92	48	1	22	120	73	796	3,227
12:45 PM	0	92	117	29	0	68	132	25	0	28	87	55	0	19	83	67	802	3,209
Count Total	2	755	869	219	0	461	992	225	2	283	701	402	10	185	752	547	6,405	
Pk Hr All	**2**	**372**	**455**	**99**	**0**	**236**	**513**	**132**	**2**	**154**	**350**	**190**	**5**	**107**	**371**	**253**	**3,241**	
Pk Hr HV	**0**	**4**	**7**	**0**	**0**	**3**	**4**	**1**	**0**	**0**	**4**	**4**	**0**	**1**	**4**	**2**	**34**	
Pk Hr HV%	**0%**	**1%**	**2%**	**0%**	**-**	**1%**	**1%**	**1%**	**0%**	**0%**	**1%**	**2%**	**0%**	**1%**	**1%**	**1%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	1	2	0	3	*6*	0	1	0	0	*1*	4	0	1	0	*5*
11:15 AM	1	4	1	3	*9*	1	0	1	0	*2*	0	1	2	0	*3*
11:30 AM	**3**	**1**	**1**	**2**	**7**	**0**	**1**	**2**	**0**	**3**	**0**	**1**	**3**	**0**	**4**
11:45 AM	**5**	**2**	**4**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**3**
12:00 PM	**3**	**3**	**2**	**1**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**4**
12:15 PM	**0**	**2**	**1**	**4**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:30 PM	2	2	0	3	*7*	0	0	0	1	*1*	1	0	0	0	*1*
12:45 PM	2	2	1	1	*6*	0	0	0	0	*0*	0	0	3	0	*3*
Count Total	17	18	10	17	*62*	1	2	3	1	*7*	8	4	11	0	*23*
Peak Hour	**11**	**8**	**8**	**7**	***34***	**0**	**1**	**2**	**0**	***3***	**3**	**3**	**5**	**0**	**11**

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Count Summaries - Heavy Vehicles

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	2	6	0
11:15 AM	0	0	1	0	0	0	4	0	0	1	0	0	0	0	1	2	9	0
11:30 AM	**0**	**1**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**7**	**0**
11:45 AM	**0**	**3**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**11**	**33**
12:00 PM	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**9**	**36**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**7**	**34**
12:30 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	1	2	0	7	34
12:45 PM	0	0	0	2	0	0	2	0	0	1	0	0	0	0	0	1	6	29
Count Total	0	5	10	2	0	3	14	1	0	2	4	4	0	2	8	7	62	
Pk Hr Heavy	**0**	**4**	**7**	**0**	**0**	**3**	**4**	**1**	**0**	**0**	**4**	**4**	**0**	**1**	**4**	**2**	**34**	

Count Summaries - Bikes

Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	0	0	2	0	0	0	0	3	0	0	0	1	7	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	

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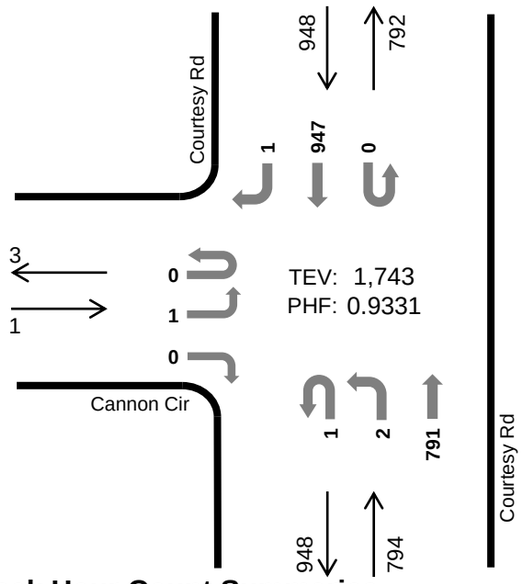
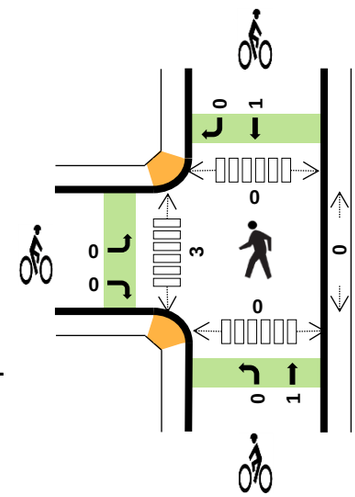
Courtesy Rd
Cannon Cir

Date: 11/5/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour



	HV%	PHF
EB	0%	0.25
WB	--	--
NB	3%	0.88
SB	1%	0.93
TOTAL	2%	0.93



Peak Hour Count Summaries

Peak Hour Interval Start		Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	0	0	0	0	0	0	0	1	0	187	0	0	0	255	0	443	0
8:00 AM		0	1	0	0	0	0	0	0	0	0	191	0	0	0	227	1	420	0
8:15 AM		0	0	0	0	0	0	0	0	0	1	224	0	0	0	242	0	467	0
8:30 AM		0	0	0	0	0	0	0	0	0	1	189	0	0	0	223	0	413	1,743
Pk Hr	All	0	1	0	0	0	0	0	0	1	2	791	0	0	0	947	1	1,743	
	HV	0	0	0	0	0	0	0	0	0	0	21	0	0	0	13	0	34	
	HV%	-	0%	-	-	-	-	-	-	0%	0%	3%	-	-	-	1%	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:45 AM	0	0	2	2	*4*	0	0	0	0	*0*	0	1	0	0	*1*
8:00 AM	0	0	7	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	0	3	5	*8*	0	0	0	1	*1*	0	1	0	0	*1*
8:30 AM	0	0	9	3	*12*	0	0	1	0	*1*	0	1	0	0	*1*
Peak Hour	0	0	21	13	*34*	0	0	1	1	*2*	0	3	0	0	*3*

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Count Summaries - All Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	1	88	0	0	0	122	0	211	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	108	0	0	0	194	0	302	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	137	0	0	0	238	0	375	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**187**	**0**	**0**	**0**	**255**	**0**	**443**	**1,331**
8:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**191**	**0**	**0**	**0**	**227**	**1**	**420**	**1,540**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**224**	**0**	**0**	**0**	**242**	**0**	**467**	**1,705**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**189**	**0**	**0**	**0**	**223**	**0**	**413**	**1,743**
8:45 AM	0	1	0	0	0	0	0	0	0	1	227	0	0	0	208	2	439	1,739
Count Total	0	2	0	0	0	0	0	0	1	4	1,351	0	0	0	1,709	3	3,070	
Pk Hr All	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**791**	**0**	**0**	**0**	**947**	**1**	**1,743**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**13**	**0**	**34**	
Pk Hr HV%	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**3%**	**-**	**-**	**-**	**1%**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	4	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	4	3	*7*	0	0	0	0	*0*	0	1	0	0	*1*
7:45 AM	**0**	**0**	**2**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
8:00 AM	**0**	**0**	**7**	**3**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**3**	**5**	**8**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**1**
8:30 AM	**0**	**0**	**9**	**3**	**12**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**1**
8:45 AM	0	0	11	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	42	26	*68*	0	0	1	1	*2*	0	4	0	0	*4*
Peak Hour	**0**	**0**	**21**	**13**	***34***	**0**	**0**	**1**	**1**	***2***	**0**	**3**	**0**	**0**	**3**

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Count Summaries - Heavy Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**4**	**22**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**3**	**0**	**10**	**27**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**8**	**29**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**3**	**0**	**12**	**34**
8:45 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	5	0	16	46
Count Total	0	0	0	0	0	0	0	0	0	0	42	0	0	0	26	0	68	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**13**	**0**	**34**	

Count Summaries - Bikes

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	

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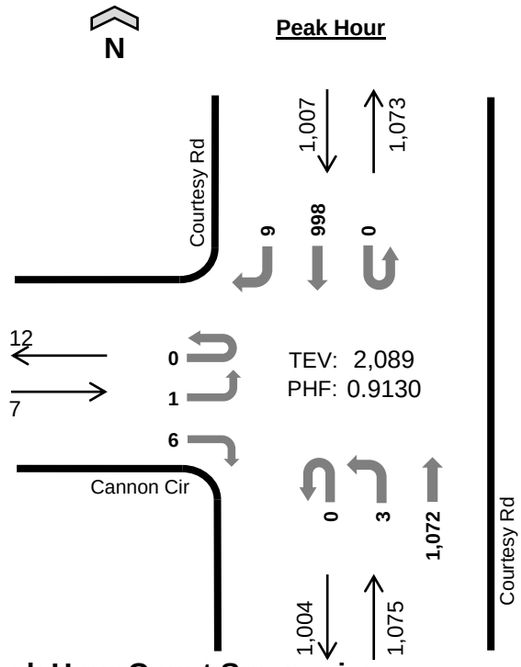
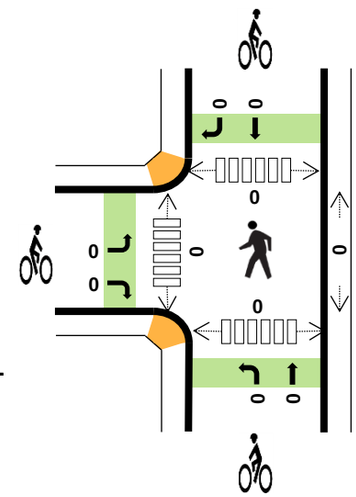
Courtesy Rd
Cannon Cir

Peak Hour

Date:	**11/5/2024**
Count Period:	**4:00 PM to 6:00 PM**
Peak Hour:	**4:00 PM to 5:00 PM**



	HV%	PHF
EB	0%	0.29
WB	--	--
NB	1%	0.92
SB	1%	0.92
TOTAL	1%	0.91



Peak Hour Count Summaries

Peak Hour Interval Start		Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	1	0	0	0	0	0	1	254	0	0	0	255	2	513	0
4:15 PM		0	1	0	5	0	0	0	0	0	0	292	0	0	0	272	2	572	0
4:30 PM		0	0	0	0	0	0	0	0	0	1	254	0	0	0	218	3	476	0
4:45 PM		0	0	0	0	0	0	0	0	0	1	272	0	0	0	253	2	528	2,089
Pk Hr	All	0	1	0	6	0	0	0	0	0	3	1,072	0	0	0	998	9	2,089	
	HV	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15	0	30	
	HV%	-	0%	-	0%	-	-	-	-	-	0%	1%	-	-	-	2%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	5	7	*12*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	4	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	5	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	15	15	*30*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**254**	**0**	**0**	**0**	**255**	**2**	**513**	0
4:15 PM	**0**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**292**	**0**	**0**	**0**	**272**	**2**	**572**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**254**	**0**	**0**	**0**	**218**	**3**	**476**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**272**	**0**	**0**	**0**	**253**	**2**	**528**	**2,089**
5:00 PM	0	2	0	5	0	0	0	0	0	1	253	0	0	0	235	1	497	2,073
5:15 PM	0	0	0	4	0	0	0	0	0	1	263	0	0	0	238	2	508	2,009
5:30 PM	0	1	0	5	0	0	0	0	0	1	277	0	0	0	210	3	497	2,030
5:45 PM	0	1	0	2	0	0	0	0	0	0	216	0	0	0	222	1	442	1,944
Count Total	0	5	0	22	0	0	0	0	0	6	2,081	0	0	0	1,903	16	4,033	
Pk Hr All	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**3**	**1,072**	**0**	**0**	**0**	**998**	**9**	**2,089**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**15**	**0**	**30**	
Pk Hr HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**1%**	**-**	**-**	**-**	**2%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**0**	**0**	**5**	**7**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**0**	**4**	**4**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**5**	**3**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	21	24	*45*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**15**	**15**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**7**	**0**	**12**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**4**	**0**	**8**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**3**	**0**	**8**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**30**
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	15
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	12
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	15
Count Total	0	0	0	0	0	0	0	0	0	0	21	0	0	0	24	0	45	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**15**	**0**	**30**	

Count Summaries - Bikes

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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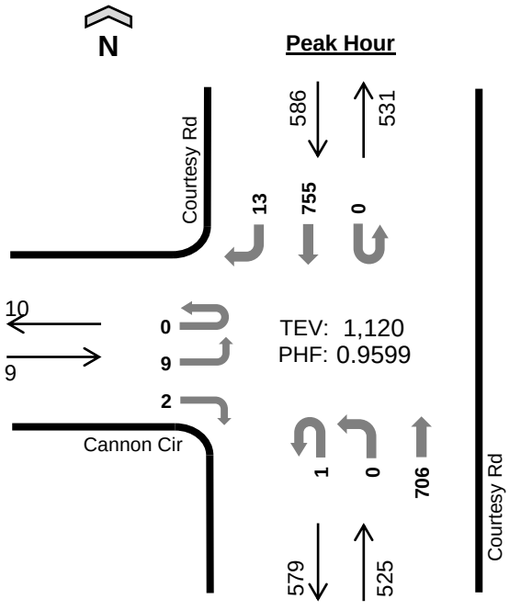
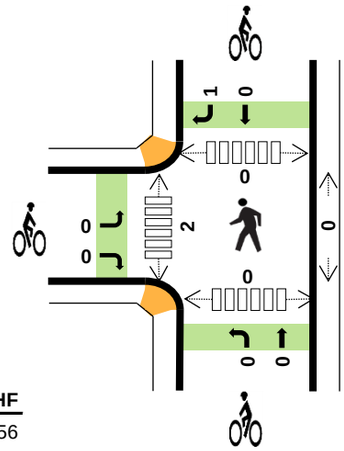
Courtesy Rd
Cannon Cir

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:45 AM to 12:45 PM





	HV%	PHF
EB	0%	0.56
WB	--	--
NB	1%	0.71
SB	1%	0.67
TOTAL	1%	0.96

Peak Hour Count Summaries

Peak Hour Interval Start		Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:45 AM		0	2	0	0	0	0	0	0	0	0	182	0	0	0	179	3	366	0
12:00 PM		0	2	0	0	0	0	0	0	0	0	175	0	0	0	176	1	354	0
12:15 PM		0	3	0	1	0	0	0	0	1	0	184	0	0	0	185	5	379	0
12:30 PM		0	2	0	1	0	0	0	0	0	0	165	0	0	0	215	4	387	1,486
Pk Hr	All	0	9	0	2	0	0	0	0	1	0	706	0	0	0	755	13	1,486	
	HV	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9	
	HV%	-	0%	-	0%	-	-	-	-	0%	-	1%	-	-	-	1%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:45 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:00 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	1	0	0	*1*
12:15 PM	0	0	2	2	*4*	0	0	0	1	*1*	0	1	0	0	*1*
12:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	5	4	*9*	0	0	0	1	*1*	0	2	0	0	*2*

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Count Summaries - All Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	1	0	3	0	0	0	0	1	1	195	0	0	0	174	0	375	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	161	0	0	0	171	1	333	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	148	0	0	0	155	1	305	0
11:45 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**182**	**0**	**0**	**0**	**179**	**3**	**366**	**1,379**
12:00 PM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**175**	**0**	**0**	**0**	**176**	**1**	**354**	**1,358**
12:15 PM	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**184**	**0**	**0**	**0**	**185**	**5**	**379**	**1,404**
12:30 PM	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**165**	**0**	**0**	**0**	**215**	**4**	**387**	**1,486**
12:45 PM	0	2	0	1	0	0	0	0	0	0	168	0	0	0	182	2	355	1,475
Count Total	0	13	0	6	0	0	0	0	2	1	1,378	0	0	0	1,437	17	2,854	
Pk Hr All	**0**	**9**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**706**	**0**	**0**	**0**	**755**	**13**	**1,486**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**4**	**0**	**9**	
Pk Hr HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**0%**	**-**	**1%**	**-**	**-**	**-**	**1%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	4	0	0	*4*
11:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	1	0	0	*1*
11:30 AM	0	0	1	1	*2*	0	0	2	0	*2*	0	1	0	0	*1*
11:45 AM	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 PM	**0**	**0**	**1**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
12:15 PM	**0**	**0**	**2**	**2**	**4**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**1**
12:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:45 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	8	9	*17*	0	0	2	1	*3*	0	8	0	0	*8*
Peak Hour	**0**	**0**	**5**	**4**	***9***	**0**	**0**	**0**	**1**	***1***	**0**	**2**	**0**	**0**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**7**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**3**	**9**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**4**	**11**
12:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	10
Count Total	0	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	17	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**4**	**0**	**9**	

Count Summaries - Bikes

Interval Start	Cannon Cir				n/a				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**3**
12:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	

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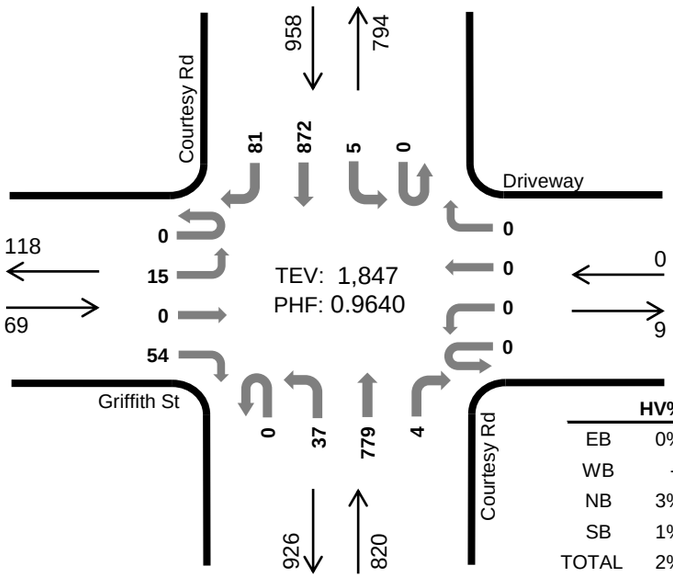
Courtesy Rd
Driveway

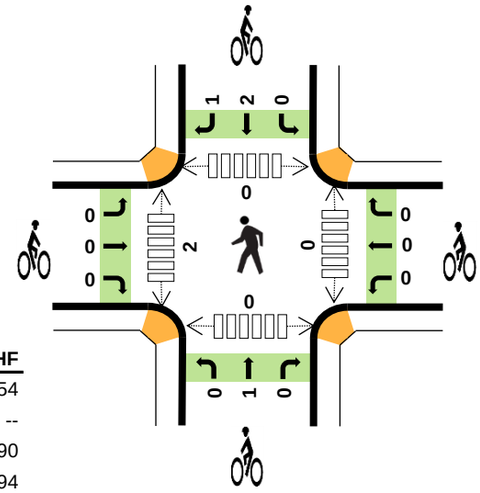
Date: 11/5/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

N

Peak Hour



	HV%	PHF
EB	0%	0.54
WB	--	--
NB	3%	0.90
SB	1%	0.94
TOTAL	2%	0.96



Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	2	0	5	0	0	0	0	0	7	168	1	0	1	236	19	439	0
8:00 AM		0	1	0	13	0	0	0	0	0	10	199	2	0	1	213	20	459	0
8:15 AM		0	2	0	14	0	0	0	0	0	11	217	1	0	2	212	20	479	0
8:30 AM		0	10	0	22	0	0	0	0	0	9	195	0	0	1	211	22	470	1,847
Pk Hr	All	0	15	0	54	0	0	0	0	0	37	779	4	0	5	872	81	1,847	
	HV	0	0	0	0	0	0	0	0	0	1	22	0	0	0	11	2	36	
	HV%	-	0%	-	0%	-	-	-	-	-	3%	3%	0%	-	0%	1%	2%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:45 AM	0	0	4	4	*8*	0	0	0	0	*0*	0	1	0	0	*1*
8:00 AM	0	0	7	3	*10*	0	0	0	0	*0*	0	1	0	0	*1*
8:15 AM	0	0	3	6	*9*	0	0	0	1	*1*	0	0	0	0	*0*
8:30 AM	0	0	9	0	*9*	0	0	1	2	*3*	0	0	0	0	*0*
Peak Hour	0	0	23	13	*36*	0	0	1	3	*4*	0	2	0	0	*2*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	4	0	1	0	0	0	4	84	0	0	1	127	1	223	0
7:15 AM	0	0	0	7	0	0	0	0	0	1	104	2	0	0	176	10	300	0
7:30 AM	0	2	1	5	0	0	1	0	0	4	129	2	0	0	240	15	399	0
7:45 AM	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**7**	**168**	**1**	**0**	**1**	**236**	**19**	**439**	**1,361**
8:00 AM	**0**	**1**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**10**	**199**	**2**	**0**	**1**	**213**	**20**	**459**	**1,597**
8:15 AM	**0**	**2**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**11**	**217**	**1**	**0**	**2**	**212**	**20**	**479**	**1,776**
8:30 AM	**0**	**10**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**9**	**195**	**0**	**0**	**1**	**211**	**22**	**470**	**1,847**
8:45 AM	0	1	0	7	0	0	0	0	0	3	210	3	0	1	196	16	437	1,845
Count Total	0	19	1	77	0	1	1	0	0	49	1,306	11	0	7	1,611	123	3,206	
Pk Hr All	**0**	**15**	**0**	**54**	**0**	**0**	**0**	**0**	**0**	**37**	**779**	**4**	**0**	**5**	**872**	**81**	**1,847**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**22**	**0**	**0**	**0**	**11**	**2**	**36**	
Pk Hr HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**3%**	**3%**	**0%**	**-**	**0%**	**1%**	**2%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	0	1	2	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	3	3	*6*	0	1	0	0	*1*	0	0	0	0	*0*
7:30 AM	0	0	4	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**4**	**4**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
8:00 AM	**0**	**0**	**7**	**3**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**3**	**6**	**9**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**0**	**9**	**0**	**9**	**0**	**0**	**1**	**2**	**3**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	7	5	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	1	39	26	*66*	0	1	1	3	*5*	0	2	0	0	*2*
Peak Hour	**0**	**0**	**23**	**13**	***36***	**0**	**0**	**1**	**3**	***4***	**0**	**2**	**0**	**0**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**3**	**1**	**8**	**26**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**3**	**0**	**10**	**31**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**1**	**9**	**34**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**9**	**36**
8:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	5	0	12	40
Count Total	0	0	0	0	0	1	0	0	0	1	37	1	0	0	24	2	66	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**22**	**0**	**0**	**0**	**11**	**2**	**36**	

Count Summaries - Bikes

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**3**	**4**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	1	5	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**1**	**4**	

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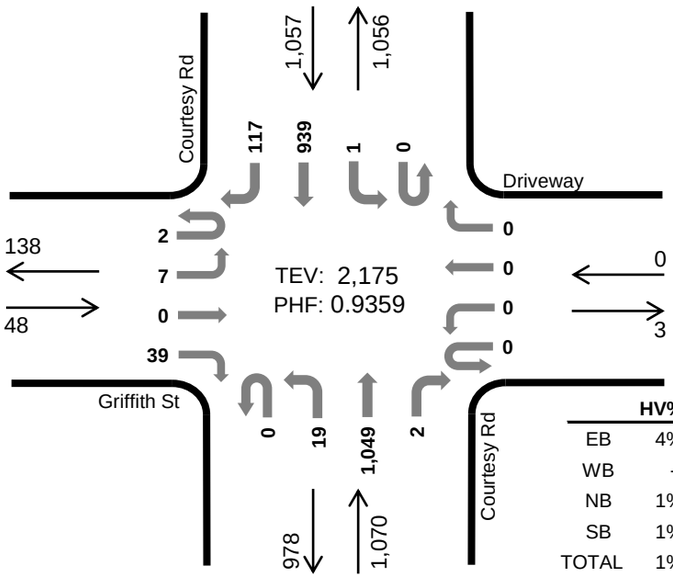
Courtesy Rd
Driveway

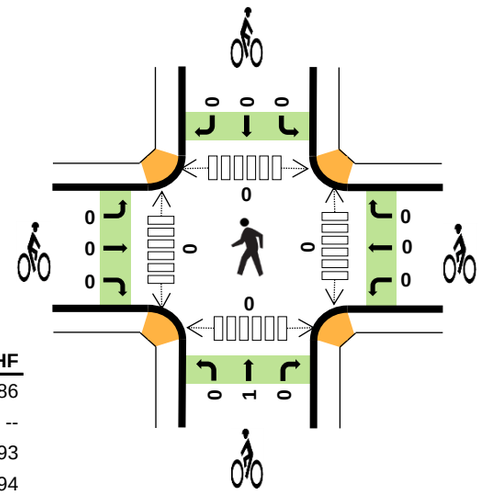
Date: 11/5/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

N

Peak Hour



	HV%	PHF
EB	4%	0.86
WB	--	--
NB	1%	0.93
SB	1%	0.94
TOTAL	1%	0.94



Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	0	12	0	0	0	0	0	5	259	1	0	0	253	27	559	0
4:15 PM		0	2	0	12	0	0	0	0	0	2	286	1	0	0	242	36	581	0
4:30 PM		0	1	0	5	0	0	0	0	0	6	245	0	0	0	216	24	497	0
4:45 PM		2	2	0	10	0	0	0	0	0	6	259	0	0	1	228	30	538	2,175
Pk Hr	All	2	7	0	39	0	0	0	0	0	19	1,049	2	0	1	939	117	2,175	
	HV	0	1	0	1	0	0	0	0	0	1	15	0	0	0	12	0	30	
	HV%	0%	14%	-	3%	-	-	-	-	-	5%	1%	0%	-	0%	1%	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	7	4	*12*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	1	0	2	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	5	3	*8*	0	0	1	0	*1*	0	0	0	0	*0*
4:45 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	2	0	16	12	*30*	0	0	1	0	*1*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**2**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**5**	**259**	**1**	**0**	**0**	**253**	**27**	**559**	0
4:15 PM	**0**	**2**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**2**	**286**	**1**	**0**	**0**	**242**	**36**	**581**	**0**
4:30 PM	**0**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**6**	**245**	**0**	**0**	**0**	**216**	**24**	**497**	**0**
4:45 PM	**2**	**2**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**6**	**259**	**0**	**0**	**1**	**228**	**30**	**538**	**2,175**
5:00 PM	0	2	0	7	0	0	0	0	0	4	250	1	0	0	247	26	537	2,153
5:15 PM	0	1	0	4	0	0	0	1	0	5	259	0	0	0	217	15	502	2,074
5:30 PM	0	4	1	3	0	0	0	0	0	6	260	0	0	0	219	15	508	2,085
5:45 PM	0	3	0	6	0	0	0	0	0	5	193	0	0	0	197	24	428	1,975
Count Total	2	17	1	59	0	0	0	1	0	39	2,011	3	0	1	1,819	197	4,150	
Pk Hr All	**2**	**7**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**19**	**1,049**	**2**	**0**	**1**	**939**	**117**	**2,175**	
Pk Hr HV	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**15**	**0**	**0**	**0**	**12**	**0**	**30**	
Pk Hr HV%	**0%**	**14%**	**-**	**3%**	**-**	**-**	**-**	**-**	**-**	**5%**	**1%**	**0%**	**-**	**0%**	**1%**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**1**	**0**	**7**	**4**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**1**	**0**	**2**	**4**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**5**	**3**	**8**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	*0*	2	0	0	1	*3*	0	0	0	0	*0*
5:15 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	2	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	0	18	24	*44*	2	0	1	1	*4*	0	0	0	0	*0*
Peak Hour	**2**	**0**	**16**	**12**	***30***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**4**	**0**	**12**	0
4:15 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**7**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**3**	**0**	**8**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	**30**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	15
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	13
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	14
Count Total	0	1	0	1	0	0	0	0	0	1	17	0	0	0	24	0	44	
Pk Hr Heavy	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**15**	**0**	**0**	**0**	**12**	**0**	**30**	

Count Summaries - Bikes

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	4	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	

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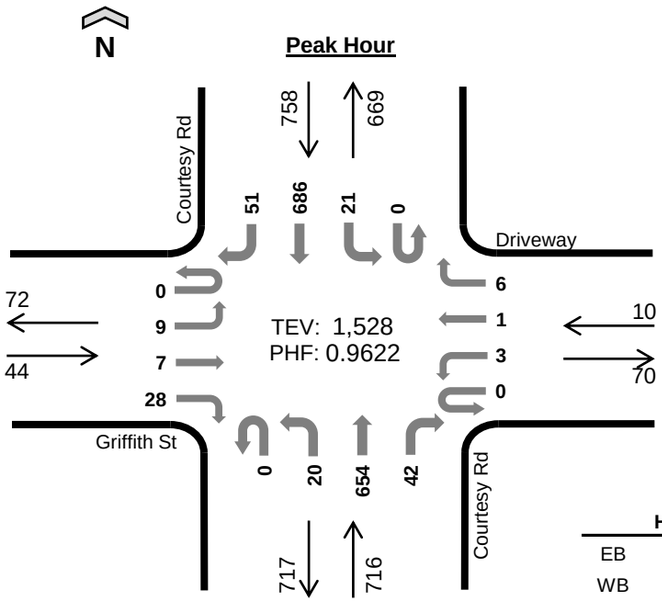
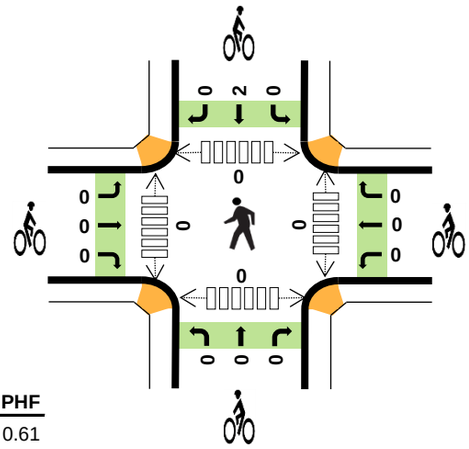
Courtesy Rd
Driveway

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 12:00 PM to 1:00 PM





	HV%	PHF
EB	0%	0.61
WB	0%	0.63
NB	0%	0.92
SB	1%	0.89
TOTAL	1%	0.96

Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM		0	5	1	11	0	0	1	3	0	7	167	13	0	4	168	11	391	0
12:15 PM		0	0	1	3	0	0	0	0	0	3	160	10	0	0	177	8	362	0
12:30 PM		0	2	4	12	0	1	0	2	0	6	147	9	0	12	191	11	397	0
12:45 PM		0	2	1	2	0	2	0	1	0	4	180	10	0	5	150	21	378	1,528
Pk Hr	All	0	9	7	28	0	3	1	6	0	20	654	42	0	21	686	51	1,528	
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	2	8	
	HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	4%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
12:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	0	1	2	*3*	0	0	0	1	*1*	0	0	0	0	*0*
12:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	0	1	1	*2*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	0	0	3	5	*8*	0	0	0	2	*2*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	6	3	3	0	1	0	2	0	3	187	3	0	6	182	8	404	0
11:15 AM	0	0	3	11	0	0	1	2	0	9	153	8	0	7	145	8	347	0
11:30 AM	0	0	3	4	0	0	0	3	0	5	154	9	0	4	148	8	338	0
11:45 AM	0	5	2	3	0	2	0	0	0	6	161	11	0	3	160	11	364	1,453
12:00 PM	**0**	**5**	**1**	**11**	**0**	**0**	**1**	**3**	**0**	**7**	**167**	**13**	**0**	**4**	**168**	**11**	**391**	**1,440**
12:15 PM	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**160**	**10**	**0**	**0**	**177**	**8**	**362**	**1,455**
12:30 PM	**0**	**2**	**4**	**12**	**0**	**1**	**0**	**2**	**0**	**6**	**147**	**9**	**0**	**12**	**191**	**11**	**397**	**1,514**
12:45 PM	**0**	**2**	**1**	**2**	**0**	**2**	**0**	**1**	**0**	**4**	**180**	**10**	**0**	**5**	**150**	**21**	**378**	**1,528**
Count Total	0	20	18	49	0	6	2	13	0	43	1,309	73	0	41	1,321	86	2,981	
Pk Hr All	**0**	**9**	**7**	**28**	**0**	**3**	**1**	**6**	**0**	**20**	**654**	**42**	**0**	**21**	**686**	**51**	**1,528**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**2**	**8**	
Pk Hr HV%	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**4%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	0	2	1	*3*	2	0	0	0	*2*	0	0	0	0	*0*
11:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	0	1	0	*1*	0	0	1	0	*1*	0	0	0	0	*0*
11:45 AM	0	0	4	1	*5*	0	0	0	0	*0*	0	1	0	0	*1*
12:00 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:15 PM	**0**	**0**	**1**	**2**	**3**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
12:30 PM	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:45 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	11	8	*19*	2	0	1	2	*5*	0	1	0	0	*1*
Peak Hour	**0**	**0**	**3**	**5**	***8***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	11
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**2**	**10**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**3**	**11**
12:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**11**
12:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**8**
Count Total	0	0	0	0	0	0	0	0	0	0	11	0	0	0	6	2	19	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**2**	**8**	

Count Summaries - Bikes

Interval Start	Griffith St				Driveway				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**2**
12:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
12:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**2**
Count Total	1	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	5	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	

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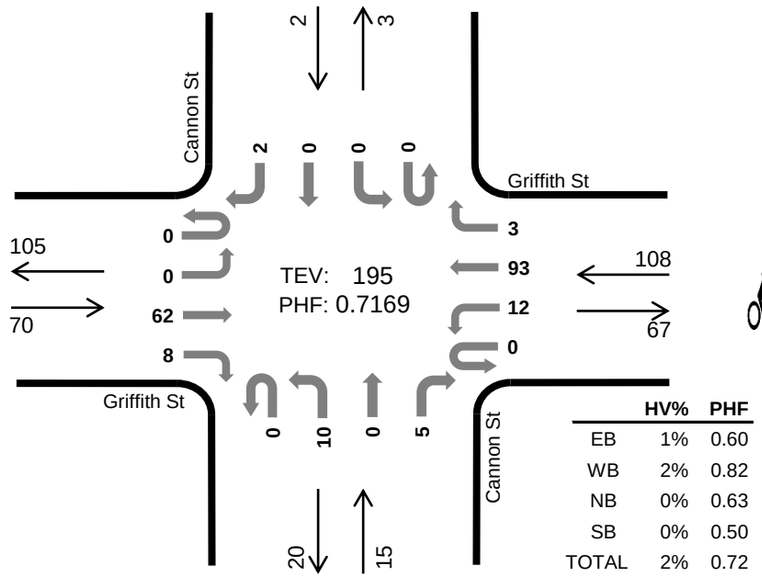
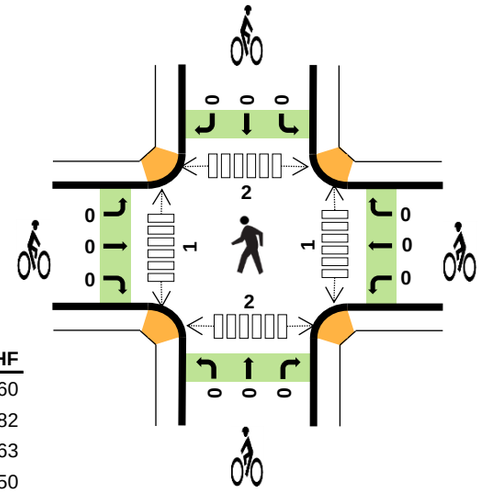
Cannon St
Griffith St

Peak Hour

Date: 11/5/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM



	HV%	PHF
EB	1%	0.60
WB	2%	0.82
NB	0%	0.63
SB	0%	0.50
TOTAL	2%	0.72



Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St Eastbound UT	LT	TH	RT	Griffith St Westbound UT	LT	TH	RT	Cannon St Northbound UT	LT	TH	RT	Cannon St Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
8:00 AM		0	0	16	1	0	2	22	0	0	3	0	0	0	0	0	0	44	0
8:15 AM		0	0	13	2	0	5	22	1	0	4	0	0	0	0	0	1	48	0
8:30 AM		0	0	27	2	0	3	29	1	0	2	0	4	0	0	0	0	68	0
8:45 AM		0	0	6	3	0	2	20	1	0	1	0	1	0	0	0	1	35	195
Pk Hr	All	0	0	62	8	0	12	93	3	0	10	0	5	0	0	0	2	195	
	HV	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3	
	HV%	-	-	0%	13%	-	0%	2%	0%	-	0%	-	0%	-	-	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
8:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	2	*2*
8:15 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	1	0	0	*1*
8:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	1	0	2	0	*3*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	2	0	0	*3*	0	0	0	0	*0*	1	1	2	2	*6*

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Count Summaries - All Vehicles

Interval Start	Griffith St Eastbound UT	LT	TH	RT	Griffith St Westbound UT	LT	TH	RT	Cannon St Northbound UT	LT	TH	RT	Cannon St Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
7:00 AM	0	0	5	1	0	0	7	0	0	1	0	1	0	0	0	0	15	0
7:15 AM	0	0	7	1	1	0	10	1	0	4	0	1	0	0	0	1	26	0
7:30 AM	0	0	7	2	0	1	16	0	0	0	0	1	0	0	0	0	27	0
7:45 AM	0	0	5	2	0	2	17	0	0	1	0	1	0	0	0	0	28	96
8:00 AM	**0**	**0**	**16**	**1**	**0**	**2**	**22**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**125**
8:15 AM	**0**	**0**	**13**	**2**	**0**	**5**	**22**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**48**	**147**
8:30 AM	**0**	**0**	**27**	**2**	**0**	**3**	**29**	**1**	**0**	**2**	**0**	**4**	**0**	**0**	**0**	**0**	**68**	**188**
8:45 AM	**0**	**0**	**6**	**3**	**0**	**2**	**20**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**35**	**195**
Count Total	0	0	86	14	1	15	143	4	0	16	0	9	0	0	0	3	291	
Pk Hr All	**0**	**0**	**62**	**8**	**0**	**12**	**93**	**3**	**0**	**10**	**0**	**5**	**0**	**0**	**0**	**2**	**195**	
Pk Hr HV	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	
Pk Hr HV%	**-**	**-**	**0%**	**13%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	1	*2*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
7:45 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	2	0	*2*
8:00 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
8:15 AM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
8:30 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**3**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	1	3	0	0	*4*	0	1	0	0	*1*	2	1	4	3	*10*
Peak Hour	**1**	**2**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**2**	**2**	**6**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:15 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
Count Total	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	4	
Pk Hr Heavy	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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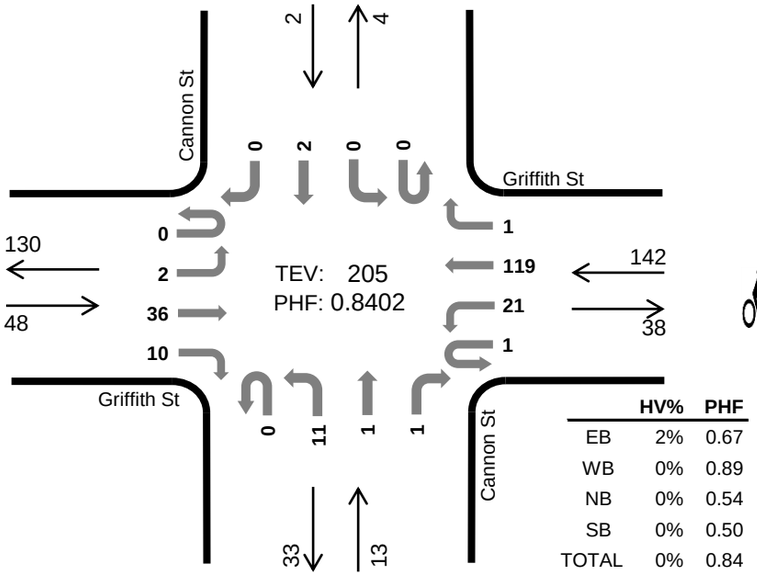
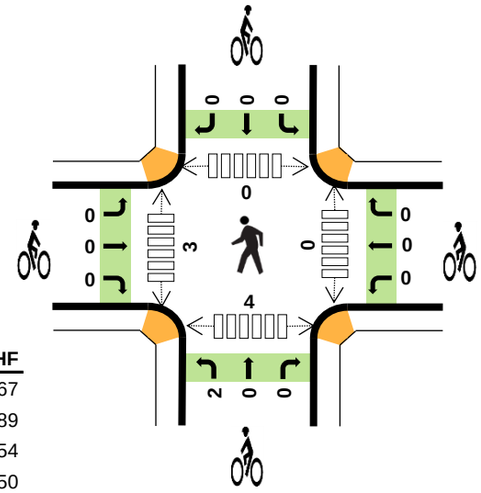
Cannon St
Griffith St

Peak Hour

Date: 11/5/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV%	PHF
EB	2%	0.67
WB	0%	0.89
NB	0%	0.54
SB	0%	0.50
TOTAL	0%	0.84



Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St Eastbound UT	LT	TH	RT	Griffith St Westbound UT	LT	TH	RT	Cannon St Northbound UT	LT	TH	RT	Cannon St Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
4:00 PM		0	2	13	3	0	2	28	0	0	0	0	0	0	0	1	0	49	0
4:15 PM		0	0	9	5	0	8	32	0	0	5	1	0	0	0	1	0	61	0
4:30 PM		0	0	5	2	0	7	25	1	0	2	0	1	0	0	0	0	43	0
4:45 PM		0	0	9	0	1	4	34	0	0	4	0	0	0	0	0	0	52	205
Pk Hr	All	0	2	36	10	1	21	119	1	0	11	1	1	0	0	2	0	205	
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	HV%	-	0%	3%	0%	0%	0%	0%	0%	-	0%	0%	0%	-	-	0%	-	0%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	2	*2*
4:30 PM	0	0	0	0	*0*	0	0	2	0	*2*	0	1	0	2	*3*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hour	1	0	0	0	*1*	0	0	2	0	*2*	0	3	0	4	*7*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**2**	**13**	**3**	**0**	**2**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**49**	0
4:15 PM	**0**	**0**	**9**	**5**	**0**	**8**	**32**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**1**	**0**	**61**	**0**
4:30 PM	**0**	**0**	**5**	**2**	**0**	**7**	**25**	**1**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**43**	**0**
4:45 PM	**0**	**0**	**9**	**0**	**1**	**4**	**34**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**205**
5:00 PM	0	0	5	2	0	3	26	0	0	3	0	0	0	1	0	1	41	197
5:15 PM	0	0	4	1	0	3	20	0	0	4	0	2	0	0	0	0	34	170
5:30 PM	0	0	5	3	0	3	17	0	0	5	1	1	0	1	0	0	36	163
5:45 PM	1	0	4	0	0	3	22	0	0	5	1	1	0	1	0	1	39	150
Count Total	1	2	54	16	1	33	204	1	0	28	3	5	0	3	2	2	355	
Pk Hr All	**0**	**2**	**36**	**10**	**1**	**21**	**119**	**1**	**0**	**11**	**1**	**1**	**0**	**0**	**2**	**0**	**205**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	
Pk Hr HV%	**-**	**0%**	**3%**	**0%**	**0%**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**-**	**0%**	**-**	**0%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**1**	**0**	**2**	**3**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
5:00 PM	0	0	0	0	*0*	2	0	0	0	*2*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
Count Total	1	0	0	0	*1*	2	0	2	0	*4*	0	3	0	5	*8*
Peak Hour	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**2**	**0**	***2***	**0**	**3**	**0**	**4**	**7**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	4	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

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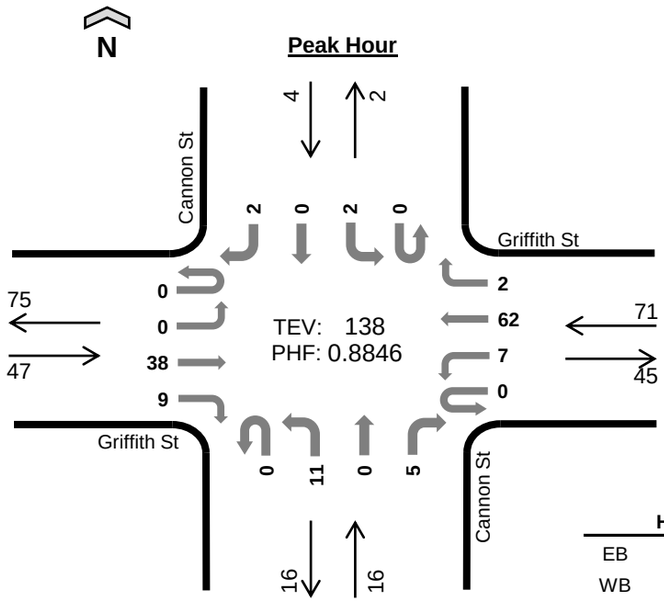
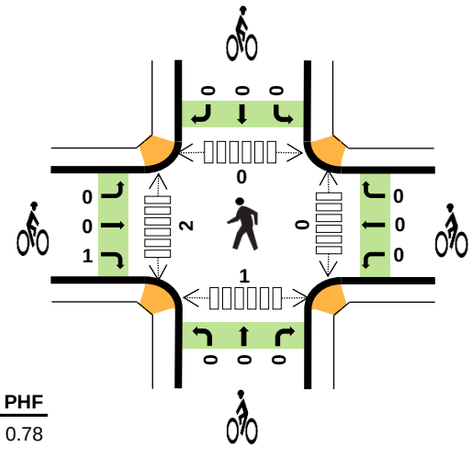
Cannon St
Griffith St

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM





	HV%	PHF
EB	0%	0.78
WB	1%	0.89
NB	0%	0.80
SB	0%	0.50
TOTAL	1%	0.88

Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:15 AM		0	0	13	2	0	1	15	1	0	5	0	0	0	1	0	1	39	0
11:30 AM		0	0	6	2	0	3	12	1	0	3	0	0	0	0	0	0	27	0
11:45 AM		0	0	8	2	0	3	15	0	0	1	0	3	0	0	0	1	33	0
12:00 PM		0	0	11	3	0	0	20	0	0	2	0	2	0	1	0	0	39	138
Pk Hr	All	0	0	38	9	0	7	62	2	0	11	0	5	0	2	0	2	138	
	HV	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
	HV%	-	-	0%	0%	-	0%	2%	0%	-	0%	-	0%	-	0%	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
11:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
11:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
12:00 PM	0	1	0	0	*1*	1	0	0	0	*1*	0	0	0	0	*0*
Peak Hour	0	1	0	0	*1*	1	0	0	0	*1*	0	2	0	1	*3*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	10	3	0	1	9	1	0	0	0	2	0	0	1	0	27	0
11:15 AM	**0**	**0**	**13**	**2**	**0**	**1**	**15**	**1**	**0**	**5**	**0**	**0**	**0**	**1**	**0**	**1**	**39**	**0**
11:30 AM	**0**	**0**	**6**	**2**	**0**	**3**	**12**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**
11:45 AM	**0**	**0**	**8**	**2**	**0**	**3**	**15**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**1**	**33**	**126**
12:00 PM	**0**	**0**	**11**	**3**	**0**	**0**	**20**	**0**	**0**	**2**	**0**	**2**	**0**	**1**	**0**	**0**	**39**	**138**
12:15 PM	0	0	6	1	0	3	10	0	0	0	0	1	0	0	0	0	21	120
12:30 PM	0	0	15	3	0	2	14	1	0	2	0	1	0	0	0	0	38	131
12:45 PM	0	0	6	2	0	6	19	0	0	1	0	1	0	0	0	2	37	135
Count Total	0	0	75	18	0	19	114	4	0	14	0	10	0	2	1	4	261	
Pk Hr All	**0**	**0**	**38**	**9**	**0**	**7**	**62**	**2**	**0**	**11**	**0**	**5**	**0**	**2**	**0**	**2**	**138**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	
Pk Hr HV%	**-**	**-**	**0%**	**0%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	0	0	0	*0*	0	0	1	0	*1*	0	2	1	0	*3*
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
12:00 PM	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
12:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	1	1	0	*2*
12:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
12:45 PM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
Count Total	0	2	0	0	*2*	1	1	1	0	*3*	0	5	3	1	*9*
Peak Hour	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***	**0**	**2**	**0**	**1**	**3**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Cannon St				Cannon St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
12:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
Count Total	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	3	
Pk Hr Bike	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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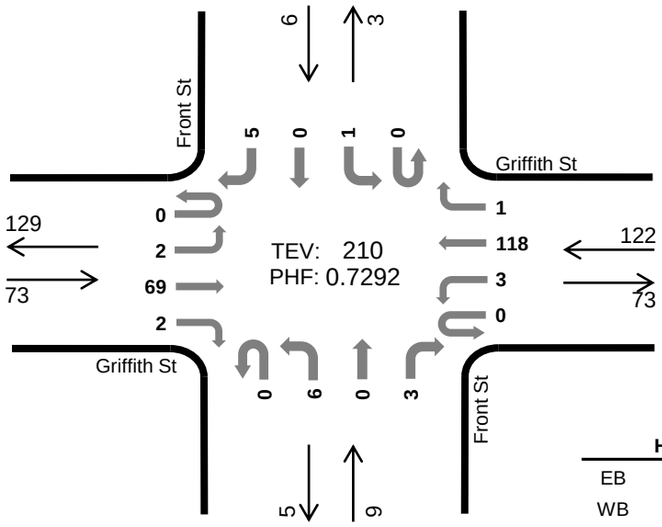
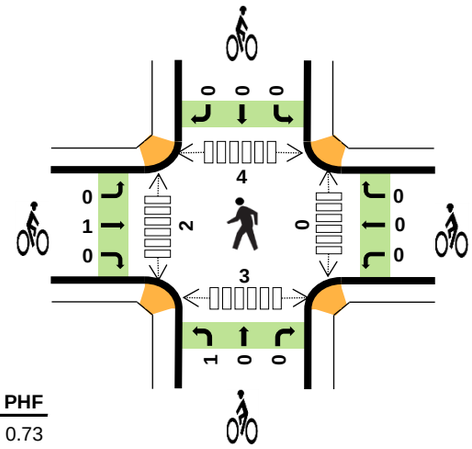
Front St
Griffith St

Date: 11/14/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

N

Peak Hour





	HV%	PHF
EB	0%	0.73
WB	2%	0.73
NB	0%	0.56
SB	0%	0.50
TOTAL	1%	0.73

Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St Eastbound UT	LT	TH	RT	Griffith St Westbound UT	LT	TH	RT	Front St Northbound UT	LT	TH	RT	Front St Southbound UT	LT	TH	RT	15-min Total	Rolling Hour Total
7:45 AM		0	1	15	0	0	1	25	0	0	3	0	1	0	0	0	0	46	0
8:00 AM		0	0	15	0	0	1	20	0	0	1	0	1	0	0	0	3	41	0
8:15 AM		0	0	16	1	0	0	32	1	0	0	0	1	0	0	0	0	51	0
8:30 AM		0	1	23	1	0	1	41	0	0	2	0	0	0	1	0	2	72	210
Pk Hr	All	0	2	69	2	0	3	118	1	0	6	0	3	0	1	0	5	210	
	HV	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	
	HV%	-	0%	0%	0%	-	33%	1%	0%	-	0%	-	0%	-	0%	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
7:45 AM	0	0	0	0	*0*	0	0	1	0	*1*	0	1	1	0	*2*
8:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	1	2	*3*
8:15 AM	0	0	0	0	*0*	1	0	0	0	*1*	0	0	1	0	*1*
8:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	1	1	1	*3*
Peak Hour	0	2	0	0	*2*	1	0	1	0	*2*	0	2	4	3	*9*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	7	0	0	0	4	0	0	4	0	0	0	0	0	0	15	0
7:15 AM	0	0	6	0	0	0	5	0	0	3	0	1	0	0	0	0	15	0
7:30 AM	0	0	7	0	0	0	15	0	0	5	0	0	0	0	0	1	28	0
7:45 AM	**0**	**1**	**15**	**0**	**0**	**1**	**25**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**46**	**104**
8:00 AM	**0**	**0**	**15**	**0**	**0**	**1**	**20**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**3**	**41**	**130**
8:15 AM	**0**	**0**	**16**	**1**	**0**	**0**	**32**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**51**	**166**
8:30 AM	**0**	**1**	**23**	**1**	**0**	**1**	**41**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**2**	**72**	**210**
8:45 AM	0	0	9	0	0	0	15	0	0	5	0	0	0	0	0	0	29	193
Count Total	0	2	98	2	0	3	157	1	0	23	0	4	0	1	0	6	297	
Pk Hr All	**0**	**2**	**69**	**2**	**0**	**3**	**118**	**1**	**0**	**6**	**0**	**3**	**0**	**1**	**0**	**5**	**210**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	
Pk Hr HV%	**-**	**0%**	**0%**	**0%**	**-**	**33%**	**1%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	1	*2*
7:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	1	0	0	*1*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**1**	**0**	**2**
8:00 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**3**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
8:30 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**3**
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	2	*2*
Count Total	0	3	0	0	*3*	1	0	1	0	*2*	0	4	4	7	*15*
Peak Hour	**0**	**2**	**0**	**0**	***2***	**1**	**0**	**1**	**0**	***2***	**0**	**2**	**4**	**3**	**9**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	
Pk Hr Bike	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

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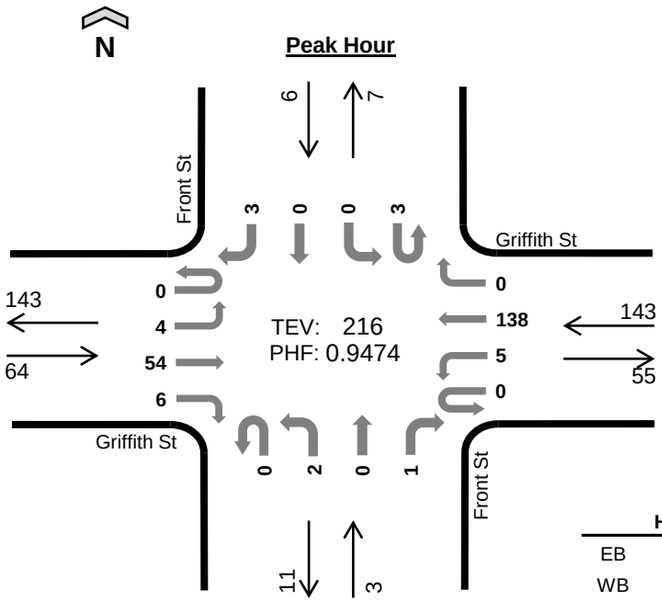
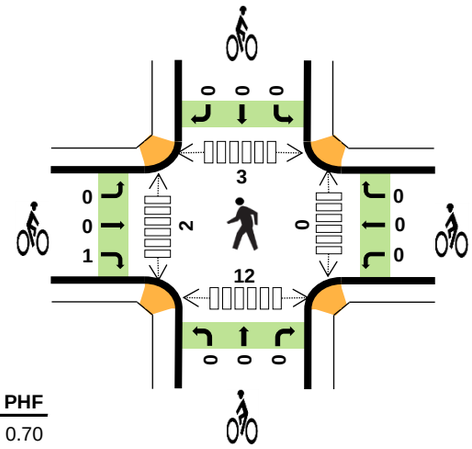
Front St
Griffith St

Date: 11/14/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	2%	0.70
WB	1%	0.94
NB	0%	0.38
SB	0%	0.50
TOTAL	1%	0.95

Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St Eastbound				Griffith St Westbound				Front St Northbound				Front St Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	18	3	0	1	32	0	0	1	0	0	0	0	0	0	57	0
4:15 PM		0	1	14	1	0	3	34	0	0	0	0	0	1	0	0	1	55	0
4:30 PM		0	1	7	1	0	1	37	0	0	1	0	1	2	0	0	1	52	0
4:45 PM		0	0	15	1	0	0	35	0	0	0	0	0	0	0	0	1	52	216
Pk Hr	All	0	4	54	6	0	5	138	0	0	2	0	1	3	0	0	3	216	
	HV	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	
	HV%	-	0%	2%	0%	-	0%	1%	-	-	0%	-	0%	0%	-	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
4:00 PM	1	0	0	0	*1*	1	0	0	0	*1*	0	0	0	3	*3*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	1	4	*7*
4:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	5	*7*
Peak Hour	1	1	0	0	*2*	1	0	0	0	*1*	0	2	3	12	*17*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**2**	**18**	**3**	**0**	**1**	**32**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**57**	0
4:15 PM	**0**	**1**	**14**	**1**	**0**	**3**	**34**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**55**	**0**
4:30 PM	**0**	**1**	**7**	**1**	**0**	**1**	**37**	**0**	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**1**	**52**	**0**
4:45 PM	**0**	**0**	**15**	**1**	**0**	**0**	**35**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**52**	**216**
5:00 PM	0	0	13	2	0	0	31	1	0	1	0	0	0	2	0	0	50	209
5:15 PM	0	1	6	4	0	1	30	2	0	2	0	1	0	0	0	2	49	203
5:30 PM	0	0	12	1	0	1	34	1	0	2	0	0	0	0	0	5	56	207
5:45 PM	0	1	7	2	0	0	30	0	0	2	0	0	0	0	0	1	43	198
Count Total	0	6	92	15	0	7	263	4	0	9	0	2	3	2	0	11	414	
Pk Hr All	**0**	**4**	**54**	**6**	**0**	**5**	**138**	**0**	**0**	**2**	**0**	**1**	**3**	**0**	**0**	**3**	**216**	
Pk Hr HV	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	
Pk Hr HV%	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**1%**	**-**	**-**	**0%**	**-**	**0%**	**0%**	**-**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
4:00 PM	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**3**
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**4**	**7**
4:30 PM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**5**	**7**
5:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	2	0	*2*
5:15 PM	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
5:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	1	*2*
Count Total	3	1	0	0	*4*	1	0	1	0	*2*	0	3	5	13	*21*
Peak Hour	**1**	**1**	**0**	**0**	***2***	**1**	**0**	**0**	**0**	***1***	**0**	**2**	**3**	**12**	**17**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
Pk Hr Heavy	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	
Pk Hr Bike	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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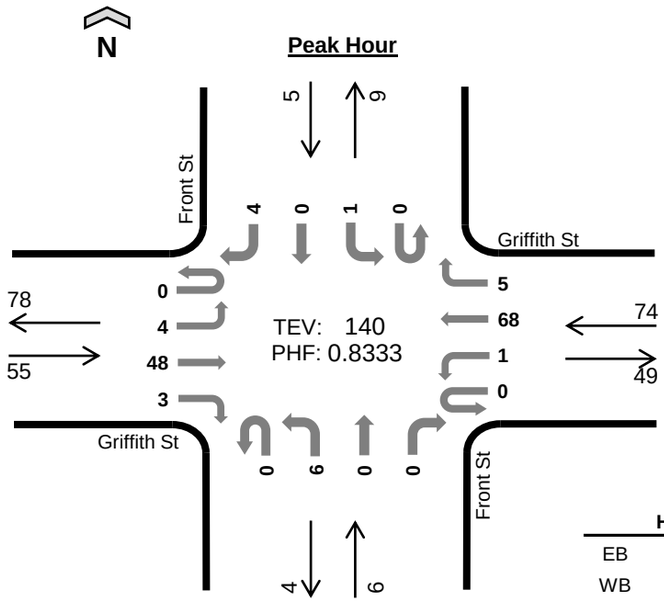
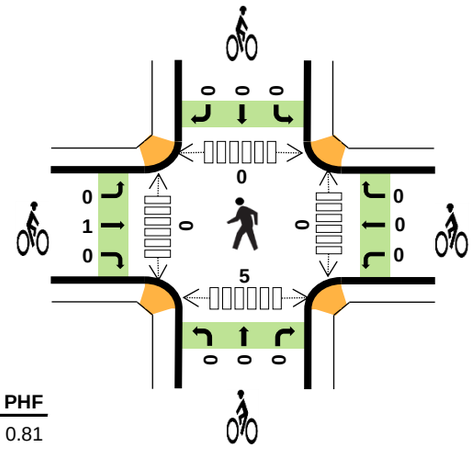
Front St
Griffith St

Date: 11/2/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM





	HV%	PHF
EB	0%	0.81
WB	1%	0.84
NB	0%	0.75
SB	0%	0.63
TOTAL	1%	0.83

Peak Hour Count Summaries

Peak Hour Interval Start		Griffith St Eastbound				Griffith St Westbound				Front St Northbound				Front St Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:15 AM		0	0	13	0	0	0	18	2	0	0	0	0	0	1	0	0	34	0
11:30 AM		0	2	9	2	0	1	13	2	0	2	0	0	0	0	0	2	33	0
11:45 AM		0	2	10	0	0	0	16	0	0	2	0	0	0	0	0	1	31	0
12:00 PM		0	0	16	1	0	0	21	1	0	2	0	0	0	0	0	1	42	140
Pk Hr	All	0	4	48	3	0	1	68	5	0	6	0	0	0	1	0	4	140	
	HV	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
	HV%	-	0%	0%	0%	-	0%	1%	0%	-	0%	-	-	-	0%	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
11:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	2	*2*
11:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:00 PM	0	1	0	0	*1*	1	0	0	0	*1*	0	0	0	2	*2*
Peak Hour	0	1	0	0	*1*	1	0	0	0	*1*	0	0	0	5	*5*

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Count Summaries - All Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	1	11	1	1	0	8	0	0	2	0	0	0	2	0	0	26	0
11:15 AM	**0**	**0**	**13**	**0**	**0**	**0**	**18**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**34**	**0**
11:30 AM	**0**	**2**	**9**	**2**	**0**	**1**	**13**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**33**	**0**
11:45 AM	**0**	**2**	**10**	**0**	**0**	**0**	**16**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**31**	**124**
12:00 PM	**0**	**0**	**16**	**1**	**0**	**0**	**21**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**42**	**140**
12:15 PM	0	2	6	0	0	0	10	0	0	2	0	0	0	0	0	0	20	126
12:30 PM	0	1	18	1	0	1	14	1	0	0	0	1	0	1	0	0	38	131
12:45 PM	0	0	7	0	0	1	20	1	0	3	0	0	0	0	0	0	32	132
Count Total	0	8	90	5	1	3	120	7	0	13	0	1	0	4	0	4	256	
Pk Hr All	**0**	**4**	**48**	**3**	**0**	**1**	**68**	**5**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**4**	**140**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	
Pk Hr HV%	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**1%**	**0%**	**-**	**0%**	**-**	**-**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 PM	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**
12:15 PM	0	1	0	0	*1*	0	0	0	1	*1*	0	0	0	3	*3*
12:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	2	*3*
12:45 PM	1	0	0	0	*1*	1	0	0	0	*1*	0	0	0	0	*0*
Count Total	1	2	0	0	*3*	2	0	0	1	*3*	0	0	1	11	*12*
Peak Hour	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**5**	**5**

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Count Summaries - Heavy Vehicles

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Count Summaries - Bikes

Interval Start	Griffith St				Griffith St				Front St				Front St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	
Pk Hr Bike	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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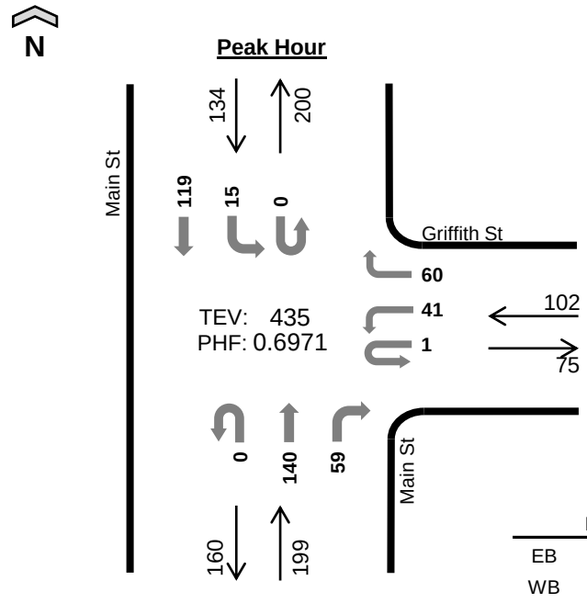
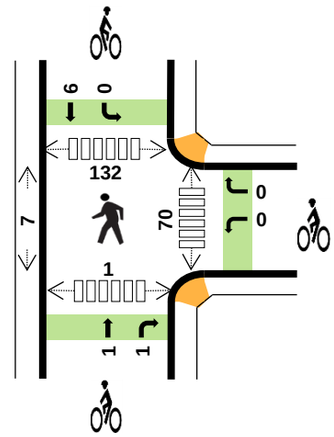
Main St
Griffith St

Date: 11/12/2024
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM



	HV%	PHF
EB	--	--
WB	2%	0.82
NB	4%	0.67
SB	4%	0.60
TOTAL	3%	0.70



Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
8:00 AM		0	0	0	0	0	14	0	17	0	0	29	15	0	3	23	0	101	0
8:15 AM		0	0	0	0	1	5	0	13	0	0	28	16	0	5	24	0	92	0
8:30 AM		0	0	0	0	0	8	0	18	0	0	54	20	0	6	50	0	156	0
8:45 AM		0	0	0	0	0	14	0	12	0	0	29	8	0	1	22	0	86	435
Pk Hr	All	0	0	0	0	1	41	0	60	0	0	140	59	0	15	119	0	435	
	HV	0	0	0	0	0	1	0	1	0	0	7	0	0	1	4	0	14	
	HV%	-	-	-	-	0%	2%	-	2%	-	-	5%	0%	-	7%	3%	-	3%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
8:00 AM	0	0	0	3	*3*	0	0	2	0	*2*	1	0	1	0	*2*
8:15 AM	0	0	2	1	*3*	0	0	0	4	*4*	28	3	48	0	*79*
8:30 AM	0	1	5	0	*6*	0	0	0	2	*2*	37	3	79	0	*119*
8:45 AM	0	1	0	1	*2*	0	0	0	0	*0*	4	1	4	1	*10*
Peak Hour	0	2	7	5	*14*	0	0	2	6	*8*	70	7	132	1	*210*

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Count Summaries - All Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	5	0	5	0	0	11	6	0	1	5	0	33	0
7:15 AM	0	0	0	0	0	6	0	6	0	0	16	6	0	2	9	0	45	0
7:30 AM	0	0	0	0	0	8	0	14	0	0	30	6	0	3	14	0	75	0
7:45 AM	0	0	0	0	0	8	0	9	1	0	40	6	0	4	16	0	84	237
8:00 AM	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**17**	**0**	**0**	**29**	**15**	**0**	**3**	**23**	**0**	**101**	**305**
8:15 AM	**0**	**0**	**0**	**0**	**1**	**5**	**0**	**13**	**0**	**0**	**28**	**16**	**0**	**5**	**24**	**0**	**92**	**352**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**18**	**0**	**0**	**54**	**20**	**0**	**6**	**50**	**0**	**156**	**433**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**12**	**0**	**0**	**29**	**8**	**0**	**1**	**22**	**0**	**86**	**435**
Count Total	0	0	0	0	1	68	0	94	1	0	237	83	0	25	163	0	672	
Pk Hr All	**0**	**0**	**0**	**0**	**1**	**41**	**0**	**60**	**0**	**0**	**140**	**59**	**0**	**15**	**119**	**0**	**435**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**7**	**0**	**0**	**1**	**4**	**0**	**14**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**0%**	**2%**	**-**	**2%**	**-**	**-**	**5%**	**0%**	**-**	**7%**	**3%**	**-**	**3%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
7:00 AM	0	0	1	0	*1*	0	0	2	1	*3*	0	0	0	0	*0*
7:15 AM	0	0	0	1	*1*	0	0	0	0	*0*	1	1	1	0	*3*
7:30 AM	0	0	1	1	*2*	0	1	0	2	*3*	4	3	2	2	*11*
7:45 AM	0	1	0	1	*2*	0	1	0	2	*3*	0	1	0	0	*1*
8:00 AM	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**2**	**0**	**2**	**1**	**0**	**1**	**0**	**2**
8:15 AM	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**4**	**4**	**28**	**3**	**48**	**0**	**79**
8:30 AM	**0**	**1**	**5**	**0**	**6**	**0**	**0**	**0**	**2**	**2**	**37**	**3**	**79**	**0**	**119**
8:45 AM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**1**	**4**	**1**	**10**
Count Total	0	3	9	8	*20*	0	2	4	11	*17*	75	12	135	3	*225*
Peak Hour	**0**	**2**	**7**	**5**	***14***	**0**	**0**	**2**	**6**	***8***	**70**	**7**	**132**	**1**	**210**

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Count Summaries - Heavy Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	6
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**3**	**8**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	**10**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**6**	**14**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**14**
Count Total	0	0	0	0	0	1	0	2	0	0	9	0	0	1	7	0	20	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**7**	**0**	**0**	**1**	**4**	**0**	**14**	

Count Summaries - Bikes

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3	9
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**2**	**8**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**4**	**12**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**11**
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**
Count Total	0	0	0	0	0	0	0	2	0	0	3	1	0	0	11	0	17	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**6**	**0**	**8**	

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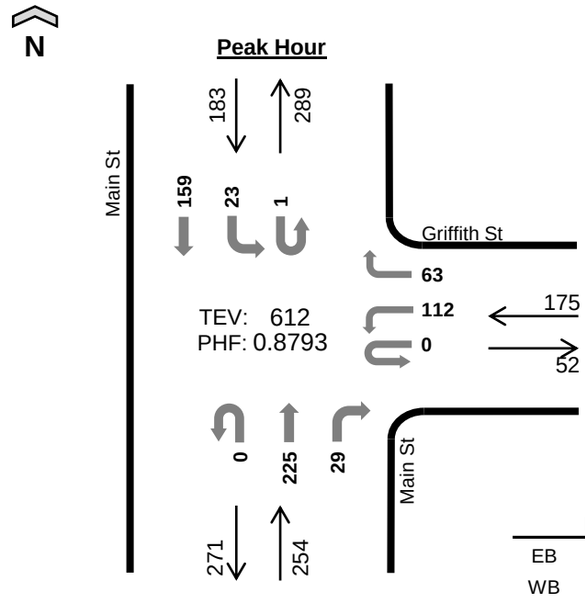
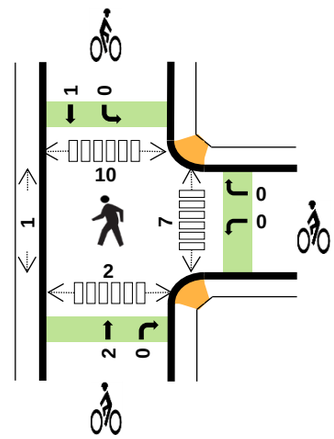
Main St
Griffith St

Date: 11/12/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV%	PHF
EB	--	--
WB	1%	0.69
NB	2%	0.77
SB	2%	0.85
TOTAL	2%	0.88



Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	0	0	0	0	15	0	17	0	0	44	5	0	3	37	0	121	0
4:45 PM		0	0	0	0	0	22	0	15	0	0	73	10	1	10	43	0	174	0
5:00 PM		0	0	0	0	0	48	0	15	0	0	60	9	0	7	33	0	172	0
5:15 PM		0	0	0	0	0	27	0	16	0	0	48	5	0	3	46	0	145	612
Pk Hr	All	0	0	0	0	0	112	0	63	0	0	225	29	1	23	159	0	612	
	HV	0	0	0	0	0	1	0	0	0	0	6	0	0	0	3	0	10	
	HV%	-	-	-	-	-	1%	-	0%	-	-	3%	0%	0%	0%	2%	-	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	0	0	2	1	*3*	0	0	1	0	*1*	0	0	1	0	*1*
4:45 PM	0	0	1	1	*2*	0	0	1	1	*2*	4	1	5	0	*10*
5:00 PM	0	1	1	0	*2*	0	0	0	0	*0*	3	0	4	2	*9*
5:15 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	1	6	3	*10*	0	0	2	1	*3*	7	1	10	2	*20*

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Count Summaries - All Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	12	0	11	0	0	54	7	0	15	41	0	140	0
4:15 PM	0	0	0	0	0	25	0	3	0	0	35	9	0	4	23	0	99	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**17**	**0**	**0**	**44**	**5**	**0**	**3**	**37**	**0**	**121**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**15**	**0**	**0**	**73**	**10**	**1**	**10**	**43**	**0**	**174**	**534**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**48**	**0**	**15**	**0**	**0**	**60**	**9**	**0**	**7**	**33**	**0**	**172**	**566**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**16**	**0**	**0**	**48**	**5**	**0**	**3**	**46**	**0**	**145**	**612**
5:30 PM	0	0	0	0	0	19	0	9	0	0	30	6	0	4	31	0	99	590
5:45 PM	0	0	0	0	0	12	0	12	0	0	43	8	0	1	41	0	117	533
Count Total	0	0	0	0	0	180	0	98	0	0	387	59	1	47	295	0	1,067	
Pk Hr All	**0**	**0**	**0**	**0**	**0**	**112**	**0**	**63**	**0**	**0**	**225**	**29**	**1**	**23**	**159**	**0**	**612**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**10**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**-**	**1%**	**-**	**0%**	**-**	**-**	**3%**	**0%**	**0%**	**0%**	**2%**	**-**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	1	3	0	*4*	0	0	3	3	*6*	0	1	1	3	*5*
4:15 PM	0	0	2	1	*3*	0	0	1	0	*1*	1	1	3	0	*5*
4:30 PM	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**1**
4:45 PM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**1**	**1**	**2**	**4**	**1**	**5**	**0**	**10**
5:00 PM	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**4**	**2**	**9**
5:15 PM	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	1	1	*2*	0	0	2	0	*2*	2	1	2	0	*5*
Count Total	0	2	12	5	*19*	0	0	8	4	*12*	10	4	16	5	*35*
Peak Hour	**0**	**1**	**6**	**3**	***10***	**0**	**0**	**2**	**1**	***3***	**7**	**1**	**10**	**2**	**20**

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Count Summaries - Heavy Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	4	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**12**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**10**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	**10**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	7
Count Total	0	0	0	0	0	1	0	1	0	0	10	2	0	0	5	0	19	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**10**	

Count Summaries - Bikes

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	6	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**10**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2
Count Total	0	0	0	0	0	0	0	0	0	0	6	2	0	1	3	0	12	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	

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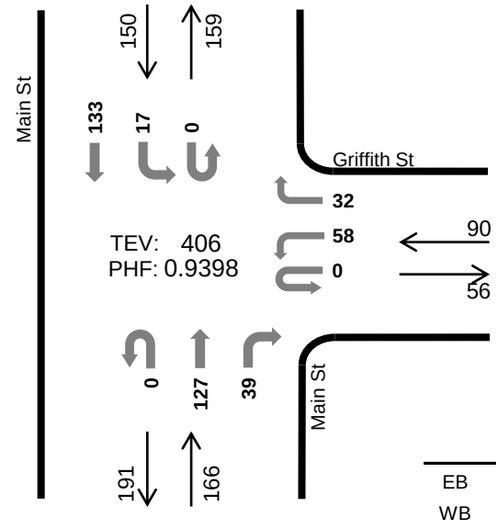
Main St
Griffith St

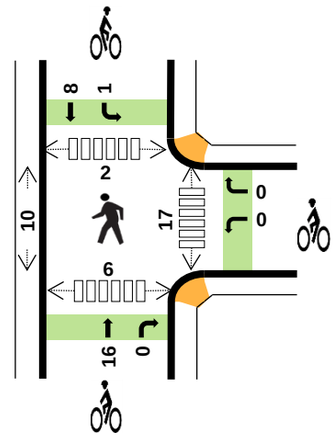
Date: 2/11/2024
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 11:15 AM to 12:15 PM

N

Peak Hour



	HV%	PHF
EB	--	--
WB	1%	0.87
NB	2%	0.78
SB	3%	0.80
TOTAL	2%	0.94



Peak Hour Count Summaries

Peak Hour Interval Start		n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:15 AM		0	0	0	0	0	15	0	10	0	0	31	7	0	7	27	0	97	0
11:30 AM		0	0	0	0	0	11	0	5	0	0	30	10	0	3	37	0	96	0
11:45 AM		0	0	0	0	0	16	0	7	0	0	26	9	0	4	43	0	105	0
12:00 PM		0	0	0	0	0	16	0	10	0	0	40	13	0	3	26	0	108	406
Pk Hr	All	0	0	0	0	0	58	0	32	0	0	127	39	0	17	133	0	406	
	HV	0	0	0	0	0	1	0	0	0	0	3	0	0	0	5	0	9	
	HV%	-	-	-	-	-	2%	-	0%	-	-	2%	0%	-	0%	4%	-	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:15 AM	0	0	1	1	*2*	0	0	3	4	*7*	3	2	0	1	*6*
11:30 AM	0	0	1	0	*1*	0	0	0	1	*1*	3	1	1	3	*8*
11:45 AM	0	0	0	3	*3*	0	0	10	1	*11*	3	4	0	0	*7*
12:00 PM	0	1	1	1	*3*	0	0	3	3	*6*	8	3	1	2	*14*
Peak Hour	0	1	3	5	*9*	0	0	16	9	*25*	17	10	2	6	*35*

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Count Summaries - All Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	12	0	0	0	0	39	11	0	1	28	0	91	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**10**	**0**	**0**	**31**	**7**	**0**	**7**	**27**	**0**	**97**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**5**	**0**	**0**	**30**	**10**	**0**	**3**	**37**	**0**	**96**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**7**	**0**	**0**	**26**	**9**	**0**	**4**	**43**	**0**	**105**	**389**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**10**	**0**	**0**	**40**	**13**	**0**	**3**	**26**	**0**	**108**	**406**
12:15 PM	0	0	0	0	0	8	0	3	0	0	34	6	0	1	32	0	84	393
12:30 PM	0	0	0	0	0	9	0	4	0	0	38	11	0	7	20	0	89	386
12:45 PM	0	0	0	0	0	13	0	9	0	0	37	4	0	5	34	0	102	383
Count Total	0	0	0	0	0	100	0	48	0	0	275	71	0	31	247	0	772	
Pk Hr All	**0**	**0**	**0**	**0**	**0**	**58**	**0**	**32**	**0**	**0**	**127**	**39**	**0**	**17**	**133**	**0**	**406**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**9**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**-**	**2%**	**-**	**0%**	**-**	**-**	**2%**	**0%**	**-**	**0%**	**4%**	**-**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	**Total**	EB	WB	NB	SB	**Total**	E	W	N	S	**Total**
11:00 AM	0	0	1	0	*1*	0	0	2	0	*2*	1	0	0	0	*1*
11:15 AM	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**3**	**4**	**7**	**3**	**2**	**0**	**1**	**6**
11:30 AM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**3**	**1**	**1**	**3**	**8**
11:45 AM	**0**	**0**	**0**	**3**	**3**	**0**	**0**	**10**	**1**	**11**	**3**	**4**	**0**	**0**	**7**
12:00 PM	**0**	**1**	**1**	**1**	**3**	**0**	**0**	**3**	**3**	**6**	**8**	**3**	**1**	**2**	**14**
12:15 PM	0	1	0	0	*1*	0	0	5	1	*6*	3	0	0	1	*4*
12:30 PM	0	0	2	0	*2*	0	0	4	6	*10*	4	2	0	0	*6*
12:45 PM	0	0	0	2	*2*	0	0	1	2	*3*	2	3	1	0	*6*
Count Total	0	2	6	7	*15*	0	0	28	18	*46*	27	15	3	7	*52*
Peak Hour	**0**	**1**	**3**	**5**	***9***	**0**	**0**	**16**	**9**	***25***	**17**	**10**	**2**	**6**	**35**

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Count Summaries - Heavy Vehicles

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**7**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	**9**
12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8
12:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	9
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	8
Count Total	0	0	0	0	0	2	0	0	0	0	6	0	0	1	6	0	15	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**9**	

Count Summaries - Bikes

Interval Start	n/a				Griffith St				Main St				Main St				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
11:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**7**	**0**
11:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**1**	**0**	**11**	**21**
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**2**	**0**	**6**	**25**
12:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	6	24
12:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	33
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	25
Count Total	0	0	0	0	0	0	0	0	0	0	28	0	0	1	17	0	46	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**0**	**0**	**1**	**8**	**0**	**25**	

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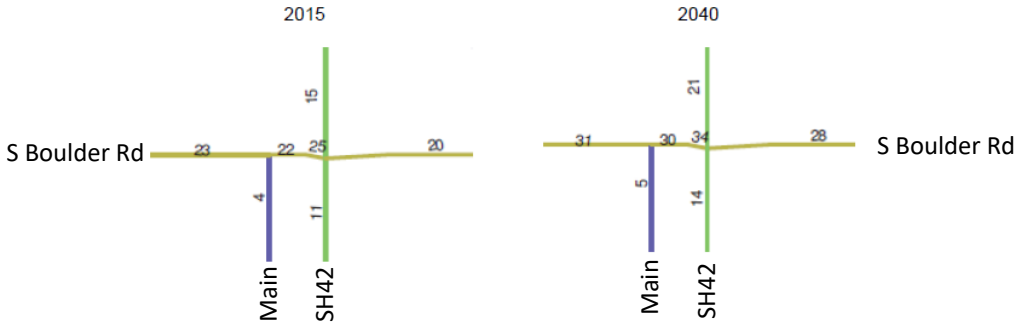
Appendix D: Background Growth Rate Calculations per DRCOG

Traffic Growth Rates

Road Segment	2020 Projected ADT	2045 Projected ADT	Growth Rate Per Year
South Boulder Road – West of SH 42	29,000	44,000	1.30%
South Boulder Road – East of SH 42	25,000	36,000	1.30%
SH 42 – North of South Boulder Road	19,000	27,000	1.30%
SH 42 – South of South Boulder Road	12,000	16,000	1.30%

Growth Rate Calculator

Scenario					
Current Year	2015	2015	2015	2015	2015
Current Traffic	23.00	22.00	20.00	15.00	11.00
Future Year	2040	2040	2040	2040	2040
Future Traffic	31.00	30.00	28.00	21.00	14.00
Growth Rate/Year	**1.20%**	**1.25%**	**1.35%**	**1.35%**	**0.97%**
	west leg 1	west leg 2	east leg 1	north leg 1	south leg 1



Notes:

1. Diagrams are from DRCOG 2015 and 2040 projected traffic volumes (in 1000's vpd) for their Focus2.2 Model.[1]
2. West Leg 1 is the S Boulder Rd segment west of the SH42/S Boulder Rd intersection west of Main Street. West Leg 2 is the S Boulder Rd segment between Main and SH42.
3. East Leg 1, North Leg 1, and South Leg 1 represent the comparative volumes between the 2015 and 2040 projected traffic volumes.
4. Annual growth rates are calculated for each segment to establish a baseline.
5. An annual growth rate of 1.30% was calculated based upon the above percentages.

[1] https://drcog.org/sites/default/files/acc/TPO-GF-TRAVELMODEL101-EN-ACC-24-05-16-V1.pdf

Appendix E: Internal Reduction Calculations

Multi-Use Trip Generation Calculation

Analyst: KJS

Date: 3/10/2025

Name of Dvlpt.: Coal Creek Station

Time Period: Avg Weekday

LAND USE A

ITE LU Code #822 Retail Plaza

Size 13.5 KSF

	Total	Internal	External
Enter	381	43	338
Exit	380	50	330
Total	761	93	668
%	100%	12%	88%

Exit to External 330

Enter from External 338

30% 114 *Demand*

8 *Balanced*

28% 8 *Demand*

28% 107 *Demand*

9 *Balanced*

30% 9 *Demand*

11% 42 *Demand*

42 *Balanced*

33% 201 *Demand*

9% 34 *Demand*

34 *Balanced*

38% 231 *Demand*

LAND USE B

ITE LU Code Empanada Shop (Derived Rate Eq.)

Size 430 SF

	Total	Internal	External
Enter	30	11	19
Exit	30	12	18
Total	60	23	37
%	100%	38%	62%

Exit to External 18

Enter from External 19

Demand 9% 3 *Balanced* 3 *Demand* 38% 231

Demand 11% 3 *Balanced* 3 *Demand* 33% 201

LAND USE C

ITE LU Code #220 Multifamily Housing

Size 188 DU

	Total	Internal	External
Enter	608	45	563
Exit	608	37	571
Total	1216	82	1134
%	100%	7%	93%

Exit to External 563

Enter from External 571

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	338	19	563	920	
Exit	330	18	571	919	
Total	668	37	1134	1839	
Single Use Trip Gen.	761	60	1216	2037	8.2%

McDOWELL ENGINEERING, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS

Date: 3/10/2025

Name of Dvlpt.: Coal Creek Station

Time Period: AM Peak

LAND USE A

ITE LU Code #822 Retail Plaza

Size 13.5 KSF

	Total	Internal	External
Enter	48	3	45
Exit	48	4	44
Total	96	7	89
%	100%	7%	93%

Exit to External 44

45 *Enter from External*

29% 14 *Demand*

0 *Balanced*

31% 0 *Demand*

31% 15 *Demand*

0 *Balanced*

29% 0 *Demand*

7% 3 *Demand*

3 *Balanced*

37% 8 *Demand*

5% 2 *Demand*

2 *Balanced*

34% 23 *Demand*

LAND USE B

ITE LU Code Empanada Shop (Derived Rate Eq.)

Size 430 SF

	Total	Internal	External
Enter	1	0	1
Exit	1	0	1
Total	2	0	2
%	100%	0%	100%

Exit to External 1

1 *Enter from External*

Demand 5% 0 *Balanced* 0 *Demand* 34% 23

Demand 7% 0 *Balanced* 0 *Demand* 37% 8

LAND USE C

ITE LU Code #220 Multifamily Housing

Size 188 DU

	Total	Internal	External
Enter	22	3	19
Exit	67	2	65
Total	89	5	84
%	100%	6%	94%

Exit to External 19

65 *Enter from External*

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	45	1	19	65	
Exit	44	1	65	110	
Total	89	2	84	175	
Single Use Trip Gen.	96	2	89	187	5.5%

McDOWELL ENGINEERING, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS

Date: 3/10/2025

Name of Dvlpt.: Coal Creek Station

Time Period: PM Peak

LAND USE A

ITE LU Code #822 Retail Plaza

Size 13.5 kSF

	Total	Internal	External
Enter	92	9	83
Exit	78	10	68
Total	170	19	151
%	100%	11%	89%

Exit to External 68

83 *Enter from External*

20% 16 *Demand*

1 *Balanced*

20% 1 *Demand*

20% 18 *Demand*

1 *Balanced*

20% 1 *Demand*

12% 9 *Demand*

9 *Balanced*

31% 21 *Demand*

9% 8 *Demand*

8 *Balanced*

53% 22 *Demand*

LAND USE B

ITE LU Code Empanada Shop (Derived Rate Eq.)

Size 430 SF

	Total	Internal	External
Enter	3	1	2
Exit	3	1	2
Total	6	2	4
%	100%	33%	67%

Exit to External 2

2 *Enter from External*

Demand 9% 0 *Balanced* 0 *Demand* 53% 22

Demand 12% 0 *Balanced* 0 *Demand* 31% 21

LAND USE C

ITE LU Code #220 Multifamily Housing

Size 188 DU

	Total	Internal	External
Enter	67	10	57
Exit	41	9	32
Total	108	19	89
%	100%	18%	82%

Exit to External 57

32 *Enter from External*

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	83	2	57	142	
Exit	68	2	32	102	
Total	151	4	89	244	
Single Use Trip Gen.	170	6	108	284	18.4%

McDowell Engineering, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Internal Trip Reduction Calculation Model

Analyst: KJS

Date: 3/10/2025

Name of Dvlpt.: Coal Creek Station

Time Period: SAT Peak

LAND USE A

ITE LU Code #822 Retail Plaza

Size 13.5 kSF

	Total	Internal	External
Enter	43	5	38
Exit	42	6	36
Total	85	11	74
%	100%	13%	87%

Exit to External 36

38 *Enter from External*

20% 8 *Demand*

1 *Balanced*

20% 1 *Demand*

20% 9 *Demand*

1 *Balanced*

20% 1 *Demand*

12% 5 *Demand*

5 *Balanced*

31% 11 *Demand*

9% 4 *Demand*

4 *Balanced*

53% 19 *Demand*

LAND USE B

ITE LU Code Empanada Shop (Derived Rate Eq.)

Size 430 SF

	Total	Internal	External
Enter	7	2	5
Exit	5	2	3
Total	12	4	8
%	100%	33%	67%

Exit to External 3

5 *Enter from External*

Demand 9% 1 *Balanced* 1 *Demand* 53% 19

Demand 12% 1 *Balanced* 1 *Demand* 31% 11

LAND USE C

ITE LU Code #220 Multifamily Housing

Size 188 DU

	Total	Internal	External
Enter	37	6	31
Exit	36	5	31
Total	73	11	62
%	100%	15%	85%

Exit to External 31

31 *Enter from External*

Net External Trips for Multi-Use Development					
	LAND A	**LAND B**	**LAND C**	**Total**	
Enter	38	5	31	74	
Exit	36	3	31	70	
Total	74	8	62	144	
Single Use Trip Gen.	85	12	73	170	17.6%

McDOWELL ENGINEERING, LLC

Internal capture reductions were calculated using methodology from the ITE *Trip Generation Handbook* , Second Edition, June 2004.

Appendix F: Signal Timing Plans

Louisville - HWY42 & S Boulder Rd

Configuration Phase Sequence Page 1

Phase Ring (MM)1-1-1

Phase															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	1	1	2	2	2	2	1	1	2	2	1	1	2	2

Hardware Alternate Sequence Enable: No

Phase Ring Sequence

Sequence	Ring	Phase 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
1	2	6	5	8	7	11	12	15	16	0	0	0	0	0	0	0	0
2	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
2	2	5	6	8	7	11	12	15	16	0	0	0	0	0	0	0	0
3	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
3	2	5	6	7	8	11	12	15	16	0	0	0	0	0	0	0	0
4	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
4	2	5	6	7	8	11	12	15	16	0	0	0	0	0	0	0	0
5	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
5	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
6	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
6	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
7	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
7	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
8	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
8	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
9	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
9	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
10	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
10	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
11	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
11	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
12	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
12	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
13	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
13	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
14	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
14	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
15	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
15	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
16	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
16	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0

Phase Compatibility (MM)1-1-2

Phase 1	Phase 2
1	5
1	6
2	5
2	6
3	7
3	8
4	7
4	8
9	11
9	12
10	11
10	12
13	15
13	16
14	15
14	16

Phase Direction Descriptions

Phase Description

Overlap Direction Descriptions

Overlap Description

Administration (MM)1-7-1
Enable CRC Check: No
CRC: 0000
Request Download Program Data: No

Louisville - HWY42 & S Boulder Rd

Configuration Phase Sequence Page 2

In Use(MM)1-2 Phases In Use	Exclusive Ped(MM)1-2 Phase	Backup Prevent(MM)1-1-3 Phase Timing Phase Backup	Simultaneous Gap(MM)1-1-4 Phase Must Gap with Phase	Disable(MM)1-1-4 Phase
1				
2				
3				
4				
5				
6				
7				
8				

Load Switch Assignments (MMU Channel) (MM)1-3

Phase	Overlap	Type	Dim R	Y	G	D	Auto R	Y	Flash Together
1	1	V				+	Yes		
2	2	V				+	Yes		Yes
3	3	V				+	Yes		
4	4	V				+	Yes		Yes
5	5	V				-	Yes		
6	6	V				-	Yes		Yes
7	7	V				-	Yes		
8	8	V				-	Yes		Yes
9	2	P				+			
10	4	P				+			
11	6	P				-			
12	8	P				-			
13	1	O				+	Yes		
14	2	O				-	Yes		Yes
15	3	O				+	Yes		
16	4	O				-	Yes		Yes

Louisville - HWY42 & S Boulder Rd

Configuration Port 1 (SDLC)

SDLC Options (MM)1-4-1

Bus Interface Terminal/Facilities

BIU	Term and Facility Enable	Detector Rack Enable
1	Yes	Yes
2	Yes	No
3	No	No
4	No	No
5	No	No
6	No	No
7	No	No
8	No	No

Enable TS2/MMU Type Cabinet: Yes
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes
Diagonstics (Test Fixture) Enable: No

Secondary To Secondary Addressing

ID	Term and Facility Enable	Detector Rack Enable
1	No	No
2	No	No
3	No	No
4	No	No
5	No	No
6	No	No
7	No	No
8	No	No

Secondary To Secondary Addressing MMU: No
Secondary To Secondary Addressing Diagonstics: No

MMU Program (MM)1-4-2

Channel Can Serve with Channel

Channel 1 Channel 2

Color Check Enable (MM)1-4-3
Enable Color Check: Yes

Color Check Enable

MMU Channel	Green	Yellow	Red
1	Yes	Yes	Yes
2	Yes	Yes	Yes
3	Yes	Yes	Yes
4	Yes	Yes	Yes
5	Yes	Yes	Yes
6	Yes	Yes	Yes
7	Yes	Yes	Yes
8	Yes	Yes	Yes
9	Yes	Yes	Yes
10	Yes	Yes	Yes
11	Yes	Yes	Yes

12	Yes	Yes	Yes
13	Yes	Yes	Yes
14	Yes	Yes	Yes
15	Yes	Yes	Yes
16	Yes	Yes	Yes

Louisville - HWY42 & S Boulder Rd

Configuration Communications

Ethernet Port Configuration (MM)1-5-1

Controller IP:	172.16.10.111
Subnet Mask:	255.255.252.0
Default Gateway IP:	172.16.11.254
Server IP:	172.16.50.1

NTCIP Parameters (MM)1-5-5

Backup Time:	0
UDP Port:	501
Ethernet Priority:	1
Port 2 Priority:	4
Port 3A Priority:	2
Port 3B Priority:	3

Note for 2070: Port 2 is C50S, Port 3A is C21S, and Port 3B is C22S

Port Configuration (MM)1-5-2 to 1-5-4

Port	Protocol	Enable	Data Rate	Data Parity Stop	Modem Setup String	User String	Comm Port Address	System Detector 9-1	Telemetry Response Delay	Duplex Half/Full	Flow Control	AB3418 NTCIP Group Address	AB3418 NTCIP Single Flag Enable	RTS to CTS Delay	RTS Turn Off Delay	Droupout Time	Early RTS	FSK Hardware
2	NTCIP	Yes	9600	8 N 1	None		1	0	0.0	Half	Yes	0	No	0.0	0.0	10	No	Yes
3A	ECPIP	No	9600	8 0 1	None		0	0	0.0	Full	No	0	No	0.0	0.0	10	No	Yes
3B	AB3418	No	1200	8 0 1	None		7	0	0.9	Full	Yes	0	No	3.0	2.0	300	No	Yes

ECPIP Parameters (MM)1-5-6

Expanded System Detector Address: 0

Local System Detector	Local System Detector Number

Louisville - HWY42 & S Boulder Rd

Configuration Logging/Display

Enable Event Logs (MM)1-6-1	
Critical RFE's:	Yes
3 Critical RFE's in 24 Hours:	Yes
MMU Flash Faults:	Yes
Local Flash Faults:	Yes
Non-Critical RFE's (Det/Test):	Yes
Detector Errors:	Yes
Coordination Errors:	Yes
Controller Download:	Yes
Preempt:	Yes
TSP:	Yes
Power On/Off:	Yes
Low Battery:	Yes
Access:	Yes
Data Change:	Yes

Alarm Logs (MM)1-6-1

Enabled:
123456789101112131415 16

Display Options (MM)1-7-2

Key Click Enable:	Yes
Backlight Enable:	Yes

Louisville - HWY42 & S Boulder Rd

Logic Processor Page 1

Statement Control (MM)1-8-1

LP	Statement Control

Louisville - HWY42 & S Boulder Rd

Logic Processor Page 2

Logic Statements (MM)1-8-2

Louisville - HWY42 & S Boulder Rd

Controller Timing Plan (MM)2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	10	5	6	5	10	5	6	0	0	0	0	0	0	0	0
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	4	0	4	0	4	0	4	0	0	0	0	0	0	0	0
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	30	0	27	0	26	0	27	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	15	30	15	30	15	30	15	30	0	0	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Louisville - HWY42 & S Boulder Rd

Controller Overlaps

Vehicle Overlaps (MM)2-2

Overlap	Type	Lag Green	Yellow	Red	Advance Green

Phases

Overlap	Phase	Included	Protect	Modifier	Ped Protect	Not Overlap	Lag X Phase	Lag 2 Phase	Flash Green

Guaranteed Minimum Time Data (MM) 2-4

Phase Time Data

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Pedestrian Overlaps
Pedestrian Overlaps (MM) 2-3
Included Phase Ped Overlap

Louisville - HWY42 & S Boulder Rd

Controller Start/Fash (MM) 2-5

Startup

Phase	Phase Setting
2	Y
6	Y

Overlap
A
B
C
D

Flash > Mon:	No
Flash Time:	0
All Red:	0
Power Start Sequence:	1

Automatic Flash

Entry Phase
2
6

Exit Phase
2
6

Overlap Exit
A
B
C
D

Flash > Mon:	No
Exit Flash Interval:	W
Minimum Auto Flash:	7
Minimumin Recall:	No
Cycle Through Phase:	No

Louisville - HWY42 & S Boulder Rd

Controller Options

Controller Options (MM)2-6-1

Phase	Flashing Green Phase	Guaranteed Passage	Non Act 1	Non Act 2	Dual Entry	Conditional Service	Conditional Reservice	Ped Reservice	Rest In Walk	Flashing Walk	Ped Clear Yellow	Ped Clear Red	IGRN + Veh Ext
2	No	No	Yes	No	Yes	No	No	No	No	No	No	No	No
4	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
6	No	No	Yes	No	Yes	No	No	No	No	No	No	No	No
8	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No

Ped Clear Protect: Off Red Revert: 2.0

Act Pre-Time (MM)2-7

Pre-Time Mode Enable: No Free Input Enables Pre-Timed: Yes

Pre-Timed Phase

Phase Recall Options (MM)2-8

Plan	Phase	Lock Detector	Vehicle Recall	Ped Recall	Max Recall	Soft Recall	No Rest	AI Calc
1	2	No	No	No	Yes	No	No	No
1	6	No	No	No	Yes	No	No	No
2	1	Yes	No	No	No	No	No	No
2	2	Yes	No	No	No	No	No	No
2	3	Yes	No	No	No	No	No	No
2	4	Yes	No	No	No	No	No	No
2	5	Yes	No	No	No	No	No	No
2	6	Yes	No	No	No	No	No	No
2	7	Yes	No	No	No	No	No	No
2	8	Yes	No	No	No	No	No	No
2	9	Yes	No	No	No	No	No	No
2	10	Yes	No	No	No	No	No	No
2	11	Yes	No	No	No	No	No	No
2	12	Yes	No	No	No	No	No	No
2	13	Yes	No	No	No	No	No	No
2	14	Yes	No	No	No	No	No	No
2	15	Yes	No	No	No	No	No	No
2	16	Yes	No	No	No	No	No	No
3	1	Yes	No	No	No	No	No	No
3	2	Yes	No	No	No	No	No	No
3	3	Yes	No	No	No	No	No	No
3	4	Yes	No	No	No	No	No	No
3	5	Yes	No	No	No	No	No	No
3	6	Yes	No	No	No	No	No	No
3	7	Yes	No	No	No	No	No	No
3	8	Yes	No	No	No	No	No	No
3	9	Yes	No	No	No	No	No	No
3	10	Yes	No	No	No	No	No	No
3	11	Yes	No	No	No	No	No	No
3	12	Yes	No	No	No	No	No	No
3	13	Yes	No	No	No	No	No	No
3	14	Yes	No	No	No	No	No	No
3	15	Yes	No	No	No	No	No	No
3	16	Yes	No	No	No	No	No	No
4	1	Yes	No	No	No	No	No	No
4	2	Yes	No	No	No	No	No	No
4	3	Yes	No	No	No	No	No	No

4	4	Yes	No	No	No	No	No	No
4	5	Yes	No	No	No	No	No	No
4	6	Yes	No	No	No	No	No	No
4	7	Yes	No	No	No	No	No	No
4	8	Yes	No	No	No	No	No	No
4	9	Yes	No	No	No	No	No	No
4	10	Yes	No	No	No	No	No	No
4	11	Yes	No	No	No	No	No	No
4	12	Yes	No	No	No	No	No	No
4	13	Yes	No	No	No	No	No	No
4	14	Yes	No	No	No	No	No	No
4	15	Yes	No	No	No	No	No	No
4	16	Yes	No	No	No	No	No	No

Louisville - HWY42 & S Boulder Rd

Coordination Options
Coordination Options (MM)3-1

Manual Pattern:	Auto
ECPI Coord:	Yes
System Source:	TBC
System Format:	STD
Splits In:	Seconds
Offsets In:	Seconds
Transition:	Smooth
Max Select:	MAXINH
Dwell/Add Time:	0
Dly Coord Wz-Lz:	No
Force Off:	Float
Offset Reference:	Yell
Use Ped Time:	Yes
Ped Recall:	No
Ped Resv:	No
Local Zero Ovrd:	No
Fo Add Ini Green:	No
Re-sync Count:	0
Multisync:	No

Split Demand (MM)3-5

Demand 1 Phase	Demand 2 Phase

Demand	Detector	Call Time	Cycle Count

Auto Perm Minimum Green (Seconds) (MM)3-4

Phase	Min Green

Louisville - HWY42 & S Boulder Rd

Coordination Pattern Data

Pattern Data (MM)3-2

Pattern	Split Pattern	TS2	Cycle	Std(COS)	Offset Value	Splits In	Offsets In	Actuated Coord
1	1	0-1	120	111	15	Seconds	Seconds	No
2	2	0-2	100	211	17	Seconds	Seconds	No
3	3	0-3	120	311	113	Seconds	Seconds	No

Pattern	Timing Plan	Actuated Walk Rest	Sequence	Phase Reservice	Action Plan	XArt Pattern	Vehicle Perm 1	Vehicle Perm 2	Vehicle Perm 3
1	1	No	1	No	1	0	0	0	0
2	1	No	2	No	2	0	0	0	0
3	1	No	1	No	3	0	0	0	0

Pattern	Ring Split Ext 1	Ring Split Ext 2	Ring Split Ext 3	Ring Split Ext 4	Split Demand Pattern 1	Split Demand Pattern 2	Ring Displ 2	Ring Displ 3	Ring Displ 4
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0

Split Preference Phases

Pattern	Phase	Preference 1	Preference 2

Special Functions

Pattern	Function	Output

Split Pattern Data (MM)3-3

Coord Phases

Split Pattern	Phase	Split
1	1	20
1	2	41
1	3	16
1	4	43
1	5	20
1	6	41
1	7	12
1	8	47
2	1	14
2	2	38
2	3	12
2	4	36
2	5	18
2	6	34
2	7	12
2	8	36
3	1	18
3	2	43
3	3	18
3	4	41
3	5	24
3	6	37
3	7	18
3	8	41

Split/Modes

Split Pattern	Mode	Phase 1 2	3 4 5 6	7 8 9 10 11 12 13 14 15 16
1	Coord	X	X	
1	Vehicle Recall	X		
2	Coord	X	X	
2	Vehicle Recall	X	X	
3	Coord	X	X	
3	Vehicle Recall	X	X	

AM Peak = Action Plan 1

Sat = Action Plan 2

PM Peak = Action Plan 3

Louisville - HWY42 & S Boulder Rd

Preemptor Preempt Plan (MM)4-1

Preempt Phases

Preempt	Phase	Track Clear Veh	Dwell Veh	Dwell Ped	Cycling Veh	Cycling Ped	Exit Phase	Exit Calls	Special Function
3	2	No	Yes	No	No	No	Yes	No	No
3	5	No	Yes	No	No	No	No	No	No
3	6	No	No	No	No	No	Yes	No	No
4	1	No	Yes	No	No	No	No	No	No
4	2	No	No	No	No	No	Yes	No	No
4	6	No	Yes	No	No	No	Yes	No	No
5	4	No	Yes	No	No	No	Yes	No	No
5	7	No	Yes	No	No	No	No	No	No
5	8	No	No	No	No	No	Yes	No	No
6	3	No	Yes	No	No	No	No	No	No
6	4	No	No	No	No	No	Yes	No	No
6	8	No	Yes	No	No	No	Yes	No	No

Preempt Overlaps

Preempt	Overlap	Track Clear	Enable Trailing	Dwell Overlap	Cycling Overlap
1	A	No	No	No	No
1	B	No	No	No	No
1	C	No	No	No	No
1	D	No	No	No	No
1	E	No	No	No	No
1	F	No	No	No	No
1	G	No	No	No	No
1	H	No	No	No	No
1	I	No	No	No	No
2	A	No	No	No	No
2	C	No	No	No	No
2	D	No	No	No	No
2	E	No	No	No	No
2	F	No	No	No	No
3	A	No	No	No	No
3	B	No	No	No	No
3	C	No	No	No	No
3	D	No	No	No	No
3	E	No	No	No	No
3	F	No	No	No	No
3	G	No	No	No	No
3	H	No	No	No	No
3	I	No	No	No	No
3	J	No	No	No	No
3	K	No	No	No	No
3	L	No	No	No	No
3	M	No	No	No	No
3	N	No	No	No	No
3	O	No	No	No	No
3	P	No	No	No	No
4	A	No	No	No	No
4	B	No	No	No	No
4	C	No	No	No	No
4	D	No	No	No	No
4	E	No	No	No	No
4	F	No	No	No	No

4	G	No	No	No	No
4	H	No	No	No	No
4	I	No	No	No	No
4	J	No	No	No	No
4	K	No	No	No	No
4	L	No	No	No	No
4	M	No	No	No	No
4	N	No	No	No	No
4	O	No	No	No	No
4	P	No	No	No	No
5	A	No	No	No	No
5	B	No	No	No	No
5	C	No	No	No	No
5	D	No	No	No	No
5	E	No	No	No	No
5	F	No	No	No	No
5	G	No	No	No	No
5	H	No	No	No	No
5	I	No	No	No	No
5	J	No	No	No	No
5	K	No	No	No	No
5	L	No	No	No	No
5	M	No	No	No	No
5	N	No	No	No	No
5	O	No	No	No	No
5	P	No	No	No	No
6	A	No	No	No	No
6	B	No	No	No	No
6	C	No	No	No	No
6	D	No	No	No	No
6	E	No	No	No	No
6	F	No	No	No	No
6	G	No	No	No	No
6	H	No	No	No	No
6	I	No	No	No	No
6	J	No	No	No	No
6	K	No	No	No	No
6	L	No	No	No	No
6	M	No	No	No	No
6	N	No	No	No	No
6	O	No	No	No	No
6	P	No	No	No	No

Preempt	Enable	Preempt Override	Interlock Enable	Detector Lock	Delay	Inhibit	Override Flash	Duration	CLR > GRN
1	No	Yes	No	Yes	0	0	No	0	No
2	No	Yes	No	Yes	0	0	No	0	No
3	Standard	Yes	No	Yes	0	0	No	10	No
4	Standard	Yes	No	Yes	0	0	No	10	No
5	Standard	Yes	No	Yes	0	0	No	10	No
6	Standard	Yes	No	Yes	0	0	No	10	No
7	No	Yes	No	Yes	0	0	No	0	No
8	No	Yes	No	Yes	0	0	No	0	No
9	No	Yes	No	Yes	0	0	No	0	No
10	No	Yes	No	Yes	0	0	No	0	No

Preempt	Term Overlap Asap	PC Through Yellow	Terminate Phase	Ped Dark	Track Clearance Re-service	Dwell Flash	Linked Pmt	Flash Exit Color	Preempt To Coord
1	No	No	No	No	No	Off	0	Red	No

2	No	No	No	No	No	Off	0	Green	No
3	No	Yes	No	No	No	Off	0	Green	No
4	No	Yes	No	No	No	Off	0	Green	No
5	No	Yes	No	No	No	Off	0	Green	No
6	No	Yes	No	No	No	Off	0	Green	No
7	No	No	No	No	No	Off	0	Green	No
8	No	No	No	No	No	Off	0	Green	No
9	No	No	No	No	No	Off	0	Green	No
10	No	No	No	No	No	Off	0	Green	No

Preempt	Exit Timing Plan	Reservice	Free During Pmt Ring 1	Free During Pmt Ring 2	Free During Pmt Ring 3	Free During Pmt Ring 4
1	0	0	No	No	No	No
2	0	0	No	No	No	No
3	0	0	No	No	No	No
4	0	0	No	No	No	No
5	0	0	No	No	No	No
6	0	0	No	No	No	No
7	0	0	No	No	No	No
8	0	0	No	No	No	No
9	0	0	No	No	No	No
10	0	0	No	No	No	No

Preempt	Entrance Walk	Entrance Ped Clear	Entrance Min Green	Entrance Yellow	Entrance Red	Track Clear Min Green	Gate Down Ext Green	Gate Down Max Green	Track Clear Yellow	Track Clear Red
1	0	255	5	4.0	1.0	0	0	0	4.0	1.0
2	0	255	5	4.0	1.0	0	0	0	4.0	1.0
3	0	7	5	4.0	1.0	0	0	0	4.0	1.0
4	0	7	5	4.0	1.0	0	0	0	4.0	1.0
5	0	7	5	4.0	1.0	0	0	0	4.0	1.0
6	0	7	5	4.0	1.0	0	0	0	4.0	1.0
7	0	255	5	4.0	1.0	0	0	0	4.0	1.0
8	0	255	5	4.0	1.0	0	0	0	4.0	1.0
9	0	255	5	4.0	1.0	0	0	0	4.0	1.0
10	0	255	5	4.0	1.0	0	0	0	4.0	1.0

Preempt	Min Dwell Time	Extend Preempt Input Time	Max Preempt Call Time	Exit Yellow Time	Exit Red Time	Preempt Active Out	Preempt Active Dwell	Other Priority Preempt	Non-Priority Preempt
1	0	0.0	0	4.0	1.0	On	No	Off	Off
2	0	0.0	0	4.0	1.0	On	No	Off	Off
3	0	0.0	240	3.0	1.0	On	No	Off	Off
4	0	0.0	240	3.0	1.0	On	No	Off	Off
5	0	0.0	240	3.0	1.0	On	No	Off	Off
6	0	0.0	240	3.0	1.0	On	No	Off	Off
7	0	0.0	0	4.0	1.0	On	No	Off	Off
8	0	0.0	0	4.0	1.0	On	No	Off	Off
9	0	0.0	0	4.0	1.0	On	No	Off	Off
10	0	0.0	0	4.0	1.0	On	No	Off	Off

Louisville - HWY42 & S Boulder Rd

Preemptor Preempt Filtering

Enable Preempt Filtering and TSP/SCP (MM)4-2

Input	Solid	Pulsing
3	Preemption -3	Preemption -7
4	Preemption -4	Preemption -8
5	Preemption -5	Preemption -9
6	Preemption -6	Preemption -10

Louisville - HWY42 & S Boulder Rd

Time Base Clock/Calendar

Clock/Calendar Options (MM)5-1

Enable Action Plan:	0
Sync Reference Time:	12:00 AM
Sync Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

Louisville - HWY42 & S Boulder Rd

Time Base Action Plan

Action Plan (MM)5-2

Plan	Pattern	Veh Det Plan	Flash	Red Reset	Controller Seq	Timing Plan	System Override	Detector Log	Veh Det Diag Plan	Ped Det Diag Plan	Dimming Enable
1	1	1	No	No	1	1	Yes	15	1	1	No
2	2	1	No	No	1	1	Yes	15	2	2	No
3	3	1	No	No	1	1	Yes	15	1	1	No
4	4	1	No	No	1	1	Yes	None	0	0	No
20	254 - FREE	1	No	No	1	1	No	None	0	0	No

Action Plan Phases

Plan	Phase	Red Rcl	Walk 2	Vex 2	Veh Rcl	Max Rcl	Max 2	Max 3	CS Inhibit	Omit

Acion Plan Special Functions		Action Plan Auxiliary Functions	
Plan	Function	Plan	Function

Logic Statement Control

Plan	LP	Statement Control

Louisville - HWY42 & S Boulder Rd

Time Base Day Plan/Schedule

Day Plan (MM)5-3

Plan	Event	Action Plan	Start Time
1	1	1	6:30 AM
1	2	2	9:30 AM
1	3	3	3:00 PM
1	4	2	7:30 PM
2	1	2	8:00 AM

AM Peak = Action Plan 1

PM Peak = Action Plan 3

Sat = Action Plan 2

Schedule (MM)5-4

Schedule Number	Day Plan Number	Months	Days of Week	Days of Month
1	1	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct, Nov, Dec	Mon, Tues, Wed, Thurs, Fri	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
2	2	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct, Nov, Dec	Sun, Sat	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31

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Time Base Exceptions

Exception Day Program (MM)5-5

Day	Fixed/Float	Month	Day of Week/Month	Week of Month/Year	Day Plan
1	FLOAT	0	0	0	0
2	FLOAT	0	0	0	0
3	FLOAT	0	0	0	0
4	FLOAT	0	0	0	0
5	FLOAT	0	0	0	0
6	FLOAT	0	0	0	0
7	FLOAT	0	0	0	0
8	FLOAT	0	0	0	0
9	FLOAT	0	0	0	0
10	FLOAT	0	0	0	0
11	FLOAT	0	0	0	0
12	FLOAT	0	0	0	0
13	FLOAT	0	0	0	0
14	FLOAT	0	0	0	0
15	FLOAT	0	0	0	0
16	FLOAT	0	0	0	0
17	FLOAT	0	0	0	0
18	FLOAT	0	0	0	0
19	FLOAT	0	0	0	0
20	FLOAT	0	0	0	0
21	FLOAT	0	0	0	0
22	FLOAT	0	0	0	0
23	FLOAT	0	0	0	0
24	FLOAT	0	0	0	0
25	FLOAT	0	0	0	0
26	FLOAT	0	0	0	0
27	FLOAT	0	0	0	0
28	FLOAT	0	0	0	0
29	FLOAT	0	0	0	0
30	FLOAT	0	0	0	0
31	FLOAT	0	0	0	0
32	FLOAT	0	0	0	0
33	FLOAT	0	0	0	0
34	FLOAT	0	0	0	0
35	FLOAT	0	0	0	0
36	FLOAT	0	0	0	0

Louisville - HWY42 & S Boulder Rd

Detectors

Detectors Page 1

Vehicle Detectors Setup (MM)6-1

Vehicle Plan	Detector Number	Called
1	1	2
1	3	5
1	5	6
1	7	1
1	9	8
1	11	3
1	13	4
1	15	7

Vehicle Detector Setup (MM)6-2 continued

Detector Number	ECPI	TS2 Detector	Detector Description

Vehicle Detector Setup (MM)6-2 continued

Detector Number	Vehicle Plan	Assigned Phase	Switch Phase	Extend Time	Delay Time	Queue Limit	Yellow Lock	Added Option	Call Option	Passage Option	Queue Option	NTCIP Occupancy	NTCIP Volume	ECPI Log	Red Lock
1	1	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	2	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	3	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	4	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	1	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	2	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	3	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	4	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	1	5	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
3	2	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	3	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	4	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	1	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	2	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	3	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	4	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	1	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	2	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	3	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	4	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	1	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	2	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	3	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	4	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	1	1	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
7	2	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	3	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	4	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	1	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	2	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	3	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	4	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	1	8	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
9	2	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	3	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	4	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	1	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	2	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	3	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	4	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	1	3	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
11	2	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	3	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	4	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	1	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	2	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	3	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	4	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
13	1	4	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
13	2	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
13	3	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
13	4	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No

14	1	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	2	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	3	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	4	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	1	7	0	0.0	0.0	0	No	No	Yes	Yes	No	Yes	Yes	No	No
15	2	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	3	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	4	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	1	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	2	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	3	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	4	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No

Ped and System Detector Options
(MM)6-4

Phase Ped Detector

Local Ped Detector	Number
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

Local System Detector

Local System Detector	Number

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Detectors

Detectors Page 2

Log - Speed Detector Setup (MM)6-5

NTCIP Log Period: 60	ECPI Log Period: TBAP	Length Unit: Inch

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap Length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM)6-6

Plan	Detector	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
1	1	0	0	0	1	255	0
1	2	0	0	0	1	255	0
1	3	0	0	240	2	0	0
1	4	0	0	0	1	255	0
1	5	0	0	0	1	255	0
1	6	0	0	0	1	255	0
1	7	0	0	240	2	0	0
1	8	0	0	0	1	255	0
1	9	0	0	15	1	255	0
1	10	0	0	0	1	255	0
1	11	0	0	240	2	0	0
1	12	0	0	0	1	255	0
1	13	0	0	240	2	0	0
1	14	0	0	0	1	255	0
1	15	0	0	240	2	0	0
1	16	0	0	0	1	255	0
1	17	0	0	0	1	255	0
1	18	0	0	0	1	255	0
1	19	0	0	0	1	255	0
1	20	0	0	0	1	255	0
1	21	0	0	0	1	255	0
1	22	0	0	0	1	255	0
1	23	0	0	0	1	255	0
1	24	0	0	0	1	255	0
1	25	0	0	0	1	255	0
1	26	0	0	0	1	255	0
1	27	0	0	0	1	255	0
1	28	0	0	0	1	255	0

1	29	0	0	0	1	255	0
1	30	0	0	0	1	255	0
1	31	0	0	0	1	255	0
1	32	0	0	0	1	255	0
1	33	0	0	0	1	255	0
1	34	0	0	0	1	255	0
1	35	0	0	0	1	255	0
1	36	0	0	0	1	255	0
1	37	0	0	0	1	255	0
1	38	0	0	0	1	255	0
1	39	0	0	0	1	255	0
1	40	0	0	0	1	255	0
1	41	0	0	0	1	255	0
1	42	0	0	0	1	255	0
1	43	0	0	0	1	255	0
1	44	0	0	0	1	255	0
1	45	0	0	0	1	255	0
1	46	0	0	0	1	255	0
1	47	0	0	0	1	255	0
1	48	0	0	0	1	255	0
1	49	0	0	0	1	255	0
1	50	0	0	0	1	255	0
1	51	0	0	0	1	255	0
1	52	0	0	0	1	255	0
1	53	0	0	0	1	255	0
1	54	0	0	0	1	255	0
1	55	0	0	0	1	255	0
1	56	0	0	0	1	255	0
1	57	0	0	0	1	255	0
1	58	0	0	0	1	255	0
1	59	0	0	0	1	255	0
1	60	0	0	0	1	255	0
1	61	0	0	0	1	255	0
1	62	0	0	0	1	255	0
1	63	0	0	0	1	255	0
1	64	0	0	0	1	255	0
2	1	0	0	0	1	255	0
2	2	0	0	0	1	255	0
2	3	0	0	0	1	255	0
2	4	0	0	0	1	255	0
2	5	0	0	0	1	255	0
2	6	0	0	0	1	255	0
2	7	0	0	0	1	255	0
2	8	0	0	0	1	255	0
2	9	0	0	0	1	255	0
2	10	0	0	0	1	255	0
2	11	0	0	0	1	255	0
2	12	0	0	0	1	255	0
2	13	0	0	0	1	255	0
2	14	0	0	0	1	255	0
2	15	0	0	0	1	255	0
2	16	0	0	0	1	255	0
2	17	0	0	0	1	255	0
2	18	0	0	0	1	255	0
2	19	0	0	0	1	255	0
2	20	0	0	0	1	255	0
2	21	0	0	0	1	255	0
2	22	0	0	0	1	255	0
2	23	0	0	0	1	255	0
2	24	0	0	0	1	255	0

2	25	0	0	0	1	255	0
2	26	0	0	0	1	255	0
2	27	0	0	0	1	255	0
2	28	0	0	0	1	255	0
2	29	0	0	0	1	255	0
2	30	0	0	0	1	255	0
2	31	0	0	0	1	255	0
2	32	0	0	0	1	255	0
2	33	0	0	0	1	255	0
2	34	0	0	0	1	255	0
2	35	0	0	0	1	255	0
2	36	0	0	0	1	255	0
2	37	0	0	0	1	255	0
2	38	0	0	0	1	255	0
2	39	0	0	0	1	255	0
2	40	0	0	0	1	255	0
2	41	0	0	0	1	255	0
2	42	0	0	0	1	255	0
2	43	0	0	0	1	255	0
2	44	0	0	0	1	255	0
2	45	0	0	0	1	255	0
2	46	0	0	0	1	255	0
2	47	0	0	0	1	255	0
2	48	0	0	0	1	255	0
2	49	0	0	0	1	255	0
2	50	0	0	0	1	255	0
2	51	0	0	0	1	255	0
2	52	0	0	0	1	255	0
2	53	0	0	0	1	255	0
2	54	0	0	0	1	255	0
2	55	0	0	0	1	255	0
2	56	0	0	0	1	255	0
2	57	0	0	0	1	255	0
2	58	0	0	0	1	255	0
2	59	0	0	0	1	255	0
2	60	0	0	0	1	255	0
2	61	0	0	0	1	255	0
2	62	0	0	0	1	255	0
2	63	0	0	0	1	255	0
2	64	0	0	0	1	255	0
3	1	0	0	0	1	255	0
3	2	0	0	0	1	255	0
3	3	0	0	0	1	255	0
3	4	0	0	0	1	255	0
3	5	0	0	0	1	255	0
3	6	0	0	0	1	255	0
3	7	0	0	0	1	255	0
3	8	0	0	0	1	255	0
3	9	0	0	0	1	255	0
3	10	0	0	0	1	255	0
3	11	0	0	0	1	255	0
3	12	0	0	0	1	255	0
3	13	0	0	0	1	255	0
3	14	0	0	0	1	255	0
3	15	0	0	0	1	255	0
3	16	0	0	0	1	255	0
3	17	0	0	0	1	255	0
3	18	0	0	0	1	255	0
3	19	0	0	0	1	255	0
3	20	0	0	0	1	255	0

3	21	0	0	0	1	255	0
3	22	0	0	0	1	255	0
3	23	0	0	0	1	255	0
3	24	0	0	0	1	255	0
3	25	0	0	0	1	255	0
3	26	0	0	0	1	255	0
3	27	0	0	0	1	255	0
3	28	0	0	0	1	255	0
3	29	0	0	0	1	255	0
3	30	0	0	0	1	255	0
3	31	0	0	0	1	255	0
3	32	0	0	0	1	255	0
3	33	0	0	0	1	255	0
3	34	0	0	0	1	255	0
3	35	0	0	0	1	255	0
3	36	0	0	0	1	255	0
3	37	0	0	0	1	255	0
3	38	0	0	0	1	255	0
3	39	0	0	0	1	255	0
3	40	0	0	0	1	255	0
3	41	0	0	0	1	255	0
3	42	0	0	0	1	255	0
3	43	0	0	0	1	255	0
3	44	0	0	0	1	255	0
3	45	0	0	0	1	255	0
3	46	0	0	0	1	255	0
3	47	0	0	0	1	255	0
3	48	0	0	0	1	255	0
3	49	0	0	0	1	255	0
3	50	0	0	0	1	255	0
3	51	0	0	0	1	255	0
3	52	0	0	0	1	255	0
3	53	0	0	0	1	255	0
3	54	0	0	0	1	255	0
3	55	0	0	0	1	255	0
3	56	0	0	0	1	255	0
3	57	0	0	0	1	255	0
3	58	0	0	0	1	255	0
3	59	0	0	0	1	255	0
3	60	0	0	0	1	255	0
3	61	0	0	0	1	255	0
3	62	0	0	0	1	255	0
3	63	0	0	0	1	255	0
3	64	0	0	0	1	255	0
4	1	0	0	0	1	255	0
4	2	0	0	0	1	255	0
4	3	0	0	0	1	255	0
4	4	0	0	0	1	255	0
4	5	0	0	0	1	255	0
4	6	0	0	0	1	255	0
4	7	0	0	0	1	255	0
4	8	0	0	0	1	255	0
4	9	0	0	0	1	255	0
4	10	0	0	0	1	255	0
4	11	0	0	0	1	255	0
4	12	0	0	0	1	255	0
4	13	0	0	0	1	255	0
4	14	0	0	0	1	255	0
4	15	0	0	0	1	255	0
4	16	0	0	0	1	255	0

4	17	0	0	0	1	255	0
4	18	0	0	0	1	255	0
4	19	0	0	0	1	255	0
4	20	0	0	0	1	255	0
4	21	0	0	0	1	255	0
4	22	0	0	0	1	255	0
4	23	0	0	0	1	255	0
4	24	0	0	0	1	255	0
4	25	0	0	0	1	255	0
4	26	0	0	0	1	255	0
4	27	0	0	0	1	255	0
4	28	0	0	0	1	255	0
4	29	0	0	0	1	255	0
4	30	0	0	0	1	255	0
4	31	0	0	0	1	255	0
4	32	0	0	0	1	255	0
4	33	0	0	0	1	255	0
4	34	0	0	0	1	255	0
4	35	0	0	0	1	255	0
4	36	0	0	0	1	255	0
4	37	0	0	0	1	255	0
4	38	0	0	0	1	255	0
4	39	0	0	0	1	255	0
4	40	0	0	0	1	255	0
4	41	0	0	0	1	255	0
4	42	0	0	0	1	255	0
4	43	0	0	0	1	255	0
4	44	0	0	0	1	255	0
4	45	0	0	0	1	255	0
4	46	0	0	0	1	255	0
4	47	0	0	0	1	255	0
4	48	0	0	0	1	255	0
4	49	0	0	0	1	255	0
4	50	0	0	0	1	255	0
4	51	0	0	0	1	255	0
4	52	0	0	0	1	255	0
4	53	0	0	0	1	255	0
4	54	0	0	0	1	255	0
4	55	0	0	0	1	255	0
4	56	0	0	0	1	255	0
4	57	0	0	0	1	255	0
4	58	0	0	0	1	255	0
4	59	0	0	0	1	255	0
4	60	0	0	0	1	255	0
4	61	0	0	0	1	255	0
4	62	0	0	0	1	255	0
4	63	0	0	0	1	255	0
4	64	0	0	0	1	255	0

Pedestrian Detector Diagnotics (MM)6-7

Plan	Detector	Counts	Act	Pres	Multiplier
1	2	0	0	240	1
1	4	0	0	240	1
1	6	0	0	240	1
1	8	0	0	240	1

Louisville - S Boulder Rd & Main

Configuration Phase Sequence Page 1

Phase Ring (MM)1-1-1

Phase															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	1	1	2	2	2	2	1	1	2	2	1	1	2	2

Hardware Alternate Sequence Enable: No

Phase Ring Sequence

Sequence	Ring	Phase 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	2	1	3	4	9	10	13	14	0	0	0	0	0	0	0	0
1	2	6	5	8	7	11	12	15	16	0	0	0	0	0	0	0	0
2	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
2	2	5	6	7	8	11	12	15	16	0	0	0	0	0	0	0	0
3	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
3	2	5	6	7	8	11	12	15	16	0	0	0	0	0	0	0	0
4	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
4	2	5	6	7	8	11	12	15	16	0	0	0	0	0	0	0	0
5	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
5	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
6	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
6	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
7	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
7	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
8	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
8	2	6	5	7	8	12	11	15	16	0	0	0	0	0	0	0	0
9	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
9	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
10	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
10	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
11	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
11	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
12	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
12	2	5	6	8	7	11	12	16	15	0	0	0	0	0	0	0	0
13	1	1	2	3	4	9	10	13	14	0	0	0	0	0	0	0	0
13	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
14	1	2	1	3	4	10	9	13	14	0	0	0	0	0	0	0	0
14	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
15	1	1	2	4	3	9	10	14	13	0	0	0	0	0	0	0	0
15	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0
16	1	2	1	4	3	10	9	14	13	0	0	0	0	0	0	0	0
16	2	6	5	8	7	12	11	16	15	0	0	0	0	0	0	0	0

Phase Compatibility (MM)1-1-2

Phase 1	Phase 2
1	5
1	6
2	5
2	6
3	7
3	8
4	7
4	8
9	11
9	12
10	11
10	12
13	15
13	16
14	15
14	16

Phase Direction Descriptions

Phase Description

Overlap Direction Descriptions

Overlap Description

Administration (MM)1-7-1
Enable CRC Check: No
CRC: 0000
Request Download Program Data: No

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Configuration Phase Sequence Page 2

Phases In Use	In Use(MM)1-2 Phase	Exclusive Ped(MM)1-2 Phase	Backup Prevent(MM)1-1-3 Phase Timing Phase Backup	Simultaneous Gap(MM)1-1-4 Phase	Must Gap with Phase	Disable(MM)1-1-4 Phase
1						
2						
4						
5						
6						
7						
8						

Load Switch Assignments (MMU Channel) (MM)1-3

Phase	Overlap	Type	Dim R	Y	G	D	Auto R	Y	Flash Together
1	1	V				+	Yes		
2	2	V				+	Yes		Yes
3	3	O				+	Yes		
4	4	V				+	Yes		Yes
5	5	V				-	Yes		
6	2	O				-	Yes		Yes
7	4	O				-	Yes		
8	8	V				-	Yes		Yes
9	2	P				+			
10	4	P				+			
11	6	P				-			
12	8	P				-			
13	1	O				+	Yes		
14	5	O				-	Yes		Yes
15	15					+	Yes		
16	16					-	Yes		Yes

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Configuration Port 1 (SDLC)

SDLC Options (MM)1-4-1

Bus Interface Terminal/Facilities

BIU	Term and Facility Enable	Detector Rack Enable
1	Yes	Yes
2	Yes	No
3	No	No
4	No	No
5	No	No
6	No	No
7	No	No
8	No	No

Enable TS2/MMU Type Cabinet: Yes
Enable MMU Extended Status: No
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes
Diagonstics (Test Fixture) Enable: No

Secondary To Secondary Addressing

ID	Term and Facility Enable	Detector Rack Enable
1	No	No
2	No	No
3	No	No
4	No	No
5	No	No
6	No	No
7	No	No
8	No	No

Secondary To Secondary Addressing MMU: No
Secondary To Secondary Addressing Diagonstics: No

MMU Program (MM)1-4-2

Channel Can Serve with Channel

Channel 1 Channel 2

Color Check Enable (MM)1-4-3
Enable Color Check: No

Color Check Enable

MMU Channel	Green	Yellow	Red
1	Yes	Yes	Yes
2	Yes	Yes	Yes
3	Yes	Yes	Yes
4	Yes	Yes	Yes
5	Yes	Yes	Yes
6	Yes	Yes	Yes
7	Yes	Yes	Yes
8	Yes	Yes	Yes
9	Yes	Yes	Yes
10	Yes	Yes	Yes
11	Yes	Yes	Yes

12	Yes	Yes	Yes
13	Yes	Yes	Yes
14	Yes	Yes	Yes
15	Yes	Yes	Yes
16	Yes	Yes	Yes

Louisville - S Boulder Rd & Main

Configuration Communications

Ethernet Port Configuration (MM)1-5-1

Controller IP:	172.16.10.113
Subnet Mask:	255.255.252.0
Default Gateway IP:	172.16.11.254
Server IP:	172.16.50.1

NTCIP Parameters (MM)1-5-5

Backup Time:	0
UDP Port:	501
Ethernet Priority:	1
Port 2 Priority:	2
Port 3A Priority:	3
Port 3B Priority:	4

Note for 2070: Port 2 is C50S, Port 3A is C21S, and Port 3B is C22S

Port Configuration (MM)1-5-2 to 1-5-4

Port	Protocol	Enable	Data Rate	Data Parity Stop	Modem Setup String	User String	Comm Port Address	System Detector 9-1	Telemetry Response Delay	Duplex Half/Full	Flow Control	AB3418 NTCIP Group Address	AB3418 NTCIP Single Flag Enable	RTS to CTS Delay	RTS Turn Off Delay	Droupout Time	Early RTS	FSK Hardware
2	NTCIP	Yes	9600	8 N 1	None		1	0	0.0	Half	Yes	0	No	0.0	0.0	0	No	Yes
3A	ECPIP	No	9600	8 0 1	None		0	0	0.0	Full	No	0	No	0.0	0.0	10	No	Yes
3B	AB3418	No	1200	8 0 1	None		1	0	0.9	Full	Yes	0	No	3.0	2.0	300	No	Yes

ECPIP Parameters (MM)1-5-6

Expanded System Detector Address: 0

Local System Detector	Local System Detector Number

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Configuration Logging/Display

Enable Event Logs (MM)1-6-1

Critical RFE's:	Yes
3 Critical RFE's in 24 Hours:	Yes
MMU Flash Faults:	Yes
Local Flash Faults:	Yes
Non-Critical RFE's (Det/Test):	Yes
Detector Errors:	Yes
Coordination Errors:	Yes
Controller Download:	Yes
Preempt:	Yes
TSP:	Yes
Power On/Off:	Yes
Low Battery:	Yes
Access:	Yes
Data Change:	Yes

Alarm Logs (MM)1-6-1

Enabled: 1234567891011121314151 6

Display Options (MM)1-7-2

Key Click Enable:	Yes
Backlight Enable:	Yes

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Logic Processor Page 1

Statement Control (MM)1-8-1

LP	Statement Control
2	E
3	E
4	E

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Logic Processor Page 2

Logic Statements (MM)1-8-2

Statement Number: 1

IF:

	Assignment	#		State
IF	PREEMPT ACTIVE	1	IS	ON

THEN:

Assignment	#		State
IS	9	Sec	ON

ELSE:

Assignment	#	State

Statement Number: 2

IF:

	Assignment	#		State
IF	WALK ON PHASE	6	IS	ON
OR	PED CLEAR ON PHASE	6	IS	ON

THEN:

Assignment	#	State
SET OVLP GREEN	5	ON

ELSE:

Assignment	#	State
SET OVLP GREEN	5	OFF

Statement Number: 3

IF:

	Assignment	#		State
IF	WALK ON PHASE	2	IS	ON
OR	PED CLEAR ON PHASE	2	IS	ON

THEN:

Assignment	#	State
SET OVLP GREEN	6	ON

ELSE:

Assignment	#	State
SET OVLP GREEN	6	OFF

Statement Number: 4

IF:

	Assignment	#		State
IF	WALK ON PHASE	4	IS	ON
OR	PED CLEAR ON PHASE	4	IS	ON

THEN:

Assignment	#	State
SET OVLP GREEN	7	ON

ELSE:

Assignment	#	State
SET OVLP GREEN	7	OFF

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Controller Timing Plan (MM)2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	35	0	5	3	35	5	5	0	0	0	0	0	0	0	0
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	6	0	6	0	6	0	6	0	0	0	0	0	0	0	0
Walk	0	6	0	6	0	6	0	6	0	0	0	0	0	0	0	0
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	17	0	32	0	17	0	24	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	0.0	2.0	2.0	5.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	12	76	0	15	6	76	15	15	0	0	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	3.0	4.0	4.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
BK Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Stp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPT Duc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Louisville - S Boulder Rd & Main

Controller Overlaps

Vehicle Overlaps (MM)2-2

Overlap	Type	Lag Green	Yellow	Red	Advance Green
A	Normal	0.0	0.0	0.0	0.0
B	Normal	0.0	0.0	0.0	0.0
C	Normal	0.0	0.0	0.0	0.0
D	Normal	0.0	0.0	0.0	0.0

Phases

Overlap	Phase	Included	Protect	Modifier	Ped Protect	Not Overlap	Lag X Phase	Lag 2 Phase	Flash Green
A	1	Yes	No	No	No	No	No	No	0
A	6	Yes	No	No	No	No	No	No	0
B	6	Yes	No	No	No	No	No	No	0
B	7	Yes	No	No	No	No	No	No	0
C	7	Yes	No	No	No	No	No	No	0
C	8	Yes	No	No	No	No	No	No	0
D	1	Yes	No	No	No	No	No	No	0
D	2	Yes	No	No	No	No	No	No	0
D	7	Yes	No	No	No	No	No	No	0

Guaranteed Minimum Time Data (MM) 2-4
Phase Time Data

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

Louisville - S Boulder Rd & Main

Controller Pedestrian Overlaps
Pedestrian Overlaps (MM) 2-3
Included Phase Ped Overlap

Louisville - S Boulder Rd & Main

Controller Start/Fash (MM) 2-5

Startup

Phase	Phase Setting
2	Y
6	Y

Overlap
A
B
C
D

Flash > Mon:	No
Flash Time:	0
All Red:	0
Power Start Sequence:	1

Automatic Flash

Entry Phase
2
6

Exit Phase
2
6

Overlap Exit
A
B
C
D

Flash > Mon:	No
Exit Flash Interval:	W
Minimum Auto Flash:	8
Minimumin Recall:	No
Cycle Through Phase:	No

Louisville - S Boulder Rd & Main

Controller Options

Controller Options (MM)2-6-1

Phase	Flashing Green Phase	Guaranteed Passage	Non Act 1	Non Act 2	Dual Entry	Conditional Service	Conditional Reservice	Ped Reservice	Rest In Walk	Flashing Walk	Ped Clear Yellow	Ped Clear Red	IGRN + Veh Ext
2	No	No	Yes	No	Yes	No	No	No	Yes	No	No	No	No
4	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
6	No	No	Yes	No	Yes	No	No	No	Yes	No	No	No	No
8	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No

Ped Clear Protect: Off Red Revert: 2.0

Act Pre-Time (MM)2-7

Pre-Time Mode Enable: No Free Input Enables Pre-Timed: Yes

Pre-Timed Phase

Phase Recall Options (MM)2-8

Plan	Phase	Lock Detector	Vehicle Recall	Ped Recall	Max Recall	Soft Recall	No Rest	AI Calc
1	2	No	No	No	Yes	No	No	No
1	6	No	No	No	Yes	No	No	No
2	1	Yes	No	No	No	No	No	No
2	2	Yes	No	No	No	No	No	No
2	3	Yes	No	No	No	No	No	No
2	4	Yes	No	No	No	No	No	No
2	5	Yes	No	No	No	No	No	No
2	6	Yes	No	No	No	No	No	No
2	7	Yes	No	No	No	No	No	No
2	8	Yes	No	No	No	No	No	No
2	9	Yes	No	No	No	No	No	No
2	10	Yes	No	No	No	No	No	No
2	11	Yes	No	No	No	No	No	No
2	12	Yes	No	No	No	No	No	No
2	13	Yes	No	No	No	No	No	No
2	14	Yes	No	No	No	No	No	No
2	15	Yes	No	No	No	No	No	No
2	16	Yes	No	No	No	No	No	No
3	1	Yes	No	No	No	No	No	No
3	2	Yes	No	No	No	No	No	No
3	3	Yes	No	No	No	No	No	No
3	4	Yes	No	No	No	No	No	No
3	5	Yes	No	No	No	No	No	No
3	6	Yes	No	No	No	No	No	No
3	7	Yes	No	No	No	No	No	No
3	8	Yes	No	No	No	No	No	No
3	9	Yes	No	No	No	No	No	No
3	10	Yes	No	No	No	No	No	No
3	11	Yes	No	No	No	No	No	No
3	12	Yes	No	No	No	No	No	No
3	13	Yes	No	No	No	No	No	No
3	14	Yes	No	No	No	No	No	No
3	15	Yes	No	No	No	No	No	No
3	16	Yes	No	No	No	No	No	No
4	1	Yes	No	No	No	No	No	No
4	2	Yes	No	No	No	No	No	No
4	3	Yes	No	No	No	No	No	No

4	4	Yes	No	No	No	No	No	No
4	5	Yes	No	No	No	No	No	No
4	6	Yes	No	No	No	No	No	No
4	7	Yes	No	No	No	No	No	No
4	8	Yes	No	No	No	No	No	No
4	9	Yes	No	No	No	No	No	No
4	10	Yes	No	No	No	No	No	No
4	11	Yes	No	No	No	No	No	No
4	12	Yes	No	No	No	No	No	No
4	13	Yes	No	No	No	No	No	No
4	14	Yes	No	No	No	No	No	No
4	15	Yes	No	No	No	No	No	No
4	16	Yes	No	No	No	No	No	No

Louisville - S Boulder Rd & Main

Coordination Options
Coordination Options (MM)3-1

Manual Pattern:	Auto
ECPI Coord:	Yes
System Source:	TBC
System Format:	STD
Splits In:	Seconds
Offsets In:	Seconds
Transition:	Smooth
Max Select:	MAXINH
Dwell/Add Time:	0
Dly Coord Wz-Lz:	No
Force Off:	Float
Offset Reference:	Yell
Use Ped Time:	Yes
Ped Recall:	No
Ped Resv:	No
Local Zero Ovrd:	No
Fo Add Ini Green:	No
Re-sync Count:	0
Multisync:	No

Split Demand (MM)3-5

Demand 1 Phase	Demand 2 Phase

Demand	Detector	Call Time	Cycle Count

Auto Perm Minimum Green (Seconds) (MM)3-4

Phase	Min Green

Louisville - S Boulder Rd & Main

Coordination Pattern Data

Pattern Data (MM)3-2

Pattern	Split Pattern	TS2	Cycle	Std(COS)	Offset Value	Splits In	Offsets In	Actuated Coord
1	1	0-1	120	111	38	Seconds	Seconds	Yes
2	2	0-2	100	211	76	Seconds	Seconds	Yes
3	3	0-3	120	311	15	Seconds	Seconds	Yes

Pattern	Timing Plan	Actuated Walk Rest	Sequence	Phase Reservice	Action Plan	XArt Pattern	Vehicle Perm 1	Vehicle Perm 2	Vehicle Perm 3
1	1	No	1	No	1	0	0	0	0
2	1	No	1	No	2	0	0	0	0
3	1	No	1	No	3	0	0	0	0

Pattern	Ring Split Ext 1	Ring Split Ext 2	Ring Split Ext 3	Ring Split Ext 4	Split Demand Pattern 1	Split Demand Pattern 2	Ring Displ 2	Ring Displ 3	Ring Displ 4
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0

Split Preference Phases

Pattern	Phase	Preference 1	Preference 2

Special Functions

Pattern	Function	Output

Split Pattern Data (MM)3-3

Coord Phases

Split Pattern	Phase	Split
1	1	14
1	2	67
1	4	39
1	5	14
1	6	67
1	7	18
1	8	21
2	1	12
2	2	53
2	4	35
2	5	12
2	6	53
2	7	17
2	8	18
3	1	14
3	2	67
3	4	39
3	5	14
3	6	67
3	7	18
3	8	21

Split/Modes

Split Pattern	Mode	Phase 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Coord		X				X										
1	Vehicle Recall	X	X				X										
2	Coord		X				X										
2	Vehicle Recall	X	X				X										
3	Coord		X				X										
3	Vehicle Recall	X	X				X										

AM

Saturday

PM

Louisville - S Boulder Rd & Main

Preemptor Preempt Plan (MM)4-1

Preempt Phases

Preempt	Phase	Track Clear Veh	Dwell Veh	Dwell Ped	Cycling Veh	Cycling Ped	Exit Phase	Exit Calls	Special Function
1	1	Yes	No	No	No	No	No	No	No
1	2	No	No	No	No	No	Yes	Yes	No
1	5	No	No	No	Yes	No	No	No	No
1	6	Yes	No	No	No	No	Yes	Yes	No
1	7	No	No	No	Yes	No	No	No	No
1	8	No	No	No	Yes	No	No	No	No
3	2	No	Yes	No	No	No	No	No	No
3	4	No	No	No	No	No	Yes	No	No
3	5	No	Yes	No	No	No	No	No	No
3	8	No	No	No	No	No	Yes	No	No
4	2	No	No	No	No	No	Yes	No	No
4	6	No	No	No	No	No	Yes	No	No
4	8	No	Yes	No	No	No	No	No	No
5	1	No	Yes	No	No	No	No	No	No
5	4	No	No	No	No	No	Yes	No	No
5	6	No	Yes	No	No	No	No	No	No
5	8	No	No	No	No	No	Yes	No	No
6	2	No	No	No	No	No	Yes	No	No
6	4	No	Yes	No	No	No	No	No	No
6	6	No	No	No	No	No	Yes	No	No
6	7	No	Yes	No	No	No	No	No	No

Preempt Overlaps

Preempt	Overlap	Track Clear	Enable Trailing	Dwell Overlap	Cycling Overlap
1	A	Yes	No	No	No
1	B	Yes	No	No	Yes
1	C	No	No	No	Yes
1	D	No	No	No	No
1	E	No	No	No	No
1	F	No	No	No	No
1	G	No	No	No	No
1	H	No	No	No	No
1	I	No	No	No	No
1	J	No	No	No	No
1	K	No	No	No	No
1	L	No	No	No	No
1	M	No	No	No	No
1	N	No	No	No	No
1	O	No	No	No	No
1	P	No	No	No	No
3	A	No	No	No	No
3	B	No	No	No	No
3	C	No	No	No	No
3	D	No	No	Yes	No
3	E	No	No	No	No
3	F	No	No	No	No
3	G	No	No	No	No
3	H	No	No	No	No
3	I	No	No	No	No
3	J	No	No	No	No
3	K	No	No	No	No

3	L	No	No	No	No
3	M	No	No	No	No
3	N	No	No	No	No
3	O	No	No	No	No
3	P	No	No	No	No
4	A	No	No	No	No
4	B	No	No	No	No
4	C	No	No	No	No
4	D	No	No	No	No
4	E	No	No	No	No
4	F	No	No	No	No
4	G	No	No	No	No
4	H	No	No	No	No
4	I	No	No	No	No
4	J	No	No	No	No
4	K	No	No	No	No
4	L	No	No	No	No
4	M	No	No	No	No
4	N	No	No	No	No
4	O	No	No	No	No
4	P	No	No	No	No
5	A	No	No	Yes	No
5	B	No	No	Yes	No
5	C	No	No	No	No
5	D	No	No	No	No
5	E	No	No	No	No
5	F	No	No	No	No
5	G	No	No	No	No
5	H	No	No	No	No
5	I	No	No	No	No
5	J	No	No	No	No
5	K	No	No	No	No
5	L	No	No	No	No
5	M	No	No	No	No
5	N	No	No	No	No
5	O	No	No	No	No
5	P	No	No	No	No
6	A	No	No	No	No
6	B	No	No	Yes	No
6	C	No	No	Yes	No
6	D	No	No	No	No
6	E	No	No	No	No
6	F	No	No	No	No
6	G	No	No	No	No
6	H	No	No	No	No
6	I	No	No	No	No
6	J	No	No	No	No
6	K	No	No	No	No
6	L	No	No	No	No
6	M	No	No	No	No
6	N	No	No	No	No
6	O	No	No	No	No
6	P	No	No	No	No

Preempt	Enable	Preempt Override	Interlock Enable	Detector Lock	Delay	Inhibit	Override Flash	Duration	CLR > GRN
1	Standard	Yes	No	Yes	0	0	No	10	No
2	No	Yes	No	Yes	0	0	No	0	No
3	Standard	No	No	Yes	0	0	No	10	No

4	Standard	No	No	Yes	0	0	No	10	No
5	Standard	No	No	Yes	0	0	No	10	No
6	Standard	No	No	Yes	0	0	No	10	No
7	No	Yes	No	Yes	0	0	No	0	No
8	No	Yes	No	Yes	0	0	No	0	No
9	No	Yes	No	Yes	0	0	No	0	No
10	No	Yes	No	Yes	0	0	No	0	No

Preempt	Term Overlap Asap	PC Through Yellow	Terminate Phase	Ped Dark	Track Clearance Re-service	Dwell Flash	Linked Pmt	Flash Exit Color	Preempt To Coord
1	No	Yes	No	No	No	Off	0	Green	No
2	No	No	No	No	No	Off	0	Green	No
3	No	Yes	No	No	No	Off	0	Green	No
4	No	Yes	No	No	No	Off	0	Green	No
5	No	Yes	No	No	No	Off	0	Green	No
6	No	Yes	No	No	No	Off	0	Green	No
7	No	No	No	No	No	Off	0	Green	No
8	No	No	No	No	No	Off	0	Green	No
9	No	No	No	No	No	Off	0	Green	No
10	No	No	No	No	No	Off	0	Green	No

Preempt	Exit Timing Plan	Reservice	Free During Pmt Ring 1	Free During Pmt Ring 2	Free During Pmt Ring 3	Free During Pmt Ring 4
1	0	0	No	No	No	No
2	0	0	No	No	No	No
3	0	0	No	No	No	No
4	0	0	No	No	No	No
5	0	0	No	No	No	No
6	0	0	No	No	No	No
7	0	0	No	No	No	No
8	0	0	No	No	No	No
9	0	0	No	No	No	No
10	0	0	No	No	No	No

Preempt	Entrance Walk	Entrance Ped Clear	Entrance Min Green	Entrance Yellow	Entrance Red	Track Clear Min Green	Gate Down Ext Green	Gate Down Max Green	Track Clear Yellow	Track Clear Red
1	0	5	5	4.0	1.0	6	0	0	4.0	1.0
2	0	255	5	4.0	1.0	0	0	0	4.0	1.0
3	0	5	5	4.0	1.0	0	0	0	4.0	1.0
4	0	6	5	4.0	1.0	0	0	0	4.0	1.0
5	0	6	5	4.0	1.0	0	0	0	4.0	1.0
6	0	6	5	4.0	1.0	0	0	0	4.0	1.0
7	0	255	5	4.0	1.0	0	0	0	4.0	1.0
8	0	255	5	4.0	1.0	0	0	0	4.0	1.0
9	0	255	5	4.0	1.0	0	0	0	4.0	1.0
10	0	255	5	4.0	1.0	0	0	0	4.0	1.0

Preempt	Min Dwell Time	Extend Preempt Input Time	Max Preempt Call Time	Exit Yellow Time	Exit Red Time	Preempt Active Out	Preempt Active Dwell	Other Priority Preempt	Non-Priority Preempt
1	0	0.0	0	4.0	1.0	On	No	Off	Off
2	0	0.0	0	4.0	1.0	On	No	Off	Off
3	0	0.0	120	4.0	1.0	On	No	Off	Off
4	0	0.0	120	4.0	1.0	On	No	Off	Off
5	0	0.0	120	4.0	1.0	On	No	Off	Off
6	0	0.0	120	4.0	1.0	On	No	Off	Off
7	0	0.0	0	4.0	1.0	On	No	Off	Off
8	0	0.0	0	4.0	1.0	On	No	Off	Off
9	0	0.0	0	4.0	1.0	On	No	Off	Off
10	0	0.0	0	4.0	1.0	On	No	Off	Off

Louisville - S Boulder Rd & Main

Preemptor Preempt Filtering

Enable Preempt Filtering and TSP/SCP (MM)4-2

Input	Solid	Pulsing
3	Preemption -3	Preemption -7
4	Preemption -4	Preemption -8
5	Preemption -5	Preemption -9
6	Preemption -6	Preemption -10

Louisville - S Boulder Rd & Main

Time Base Clock/Calendar

Clock/Calendar Options (MM)5-1

Enable Action Plan:	0
Sync Reference Time:	12:00 AM
Sync Reference:	Reference Time
Day Light Savings:	No
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	0

Louisville - S Boulder Rd & Main

Time Base Action Plan

Action Plan (MM)5-2

Plan	Pattern	Veh Det Plan	Flash	Red Reset	Controller Seq	Timing Plan	System Override	Detector Log	Veh Det Diag Plan	Ped Det Diag Plan	Dimming Enable
1	1	1	No	No	1	1	Yes	None	0	0	No
2	2	1	No	No	1	1	Yes	None	0	0	No
3	3	1	No	No	1	1	Yes	None	0	0	No
20	254 - FREE	1	No	No	1	1	Yes	None	0	0	No
100	Auto	2	No	No	1	1	Yes	None	0	0	No

Action Plan Phases

Plan	Phase	Red Rcl	Walk 2	Vex 2	Veh Rcl	Max Rcl	Max 2	Max 3	CS Inhibit	Omit

Acion Plan Special Functions		Action Plan Auxiliary Functions	
Plan	Function	Plan	Function

Logic Statement Control

Plan	LP	Statement Control
1	1	E
2	1	E
3	1	E
20	1	E
100	1	E

Louisville - S Boulder Rd & Main

Time Base Day Plan/Schedule

Day Plan (MM)5-3

Plan	Event	Action Plan	Start Time
1	1	1	6:30 AM
1	2	2	9:30 AM
1	3	3	3:00 PM
1	4	20	7:30 PM
2	1	20	8:00 AM

AM

PM

Sat

Schedule (MM)5-4

Schedule Number	Day Plan Number	Months	Days of Week	Days of Month
1	1	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct, Nov, Dec	Mon, Tues, Wed, Thurs, Fri	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
2	2	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct, Nov, Dec	Sun, Sat	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31

Louisville - S Boulder Rd & Main

Time Base Exceptions

Exception Day Program (MM)5-5

Day	Fixed/Float	Month	Day of Week/Month	Week of Month/Year	Day Plan
1	FLOAT	0	0	0	0
2	FLOAT	0	0	0	0
3	FLOAT	0	0	0	0
4	FLOAT	0	0	0	0
5	FLOAT	0	0	0	0
6	FLOAT	0	0	0	0
7	FLOAT	0	0	0	0
8	FLOAT	0	0	0	0
9	FLOAT	0	0	0	0
10	FLOAT	0	0	0	0
11	FLOAT	0	0	0	0
12	FLOAT	0	0	0	0
13	FLOAT	0	0	0	0
14	FLOAT	0	0	0	0
15	FLOAT	0	0	0	0
16	FLOAT	0	0	0	0
17	FLOAT	0	0	0	0
18	FLOAT	0	0	0	0
19	FLOAT	0	0	0	0
20	FLOAT	0	0	0	0
21	FLOAT	0	0	0	0
22	FLOAT	0	0	0	0
23	FLOAT	0	0	0	0
24	FLOAT	0	0	0	0
25	FLOAT	0	0	0	0
26	FLOAT	0	0	0	0
27	FLOAT	0	0	0	0
28	FLOAT	0	0	0	0
29	FLOAT	0	0	0	0
30	FLOAT	0	0	0	0
31	FLOAT	0	0	0	0
32	FLOAT	0	0	0	0
33	FLOAT	0	0	0	0
34	FLOAT	0	0	0	0
35	FLOAT	0	0	0	0
36	FLOAT	0	0	0	0

Louisville - S Boulder Rd & Main

Detectors

Detectors Page 1

Vehicle Detectors Setup (MM)6-1

Vehicle Plan	Detector Number	Called

Vehicle Detector Setup (MM)6-2 continued

Detector Number	ECPI	TS2 Detector	Detector Description
13	0	No	
14	0	No	
15	0	No	
16	0	No	

Vehicle Detector Setup (MM)6-2 continued

Detector Number	Vehicle Plan	Assigned Phase	Switch Phase	Extend Time	Delay Time	Queue Limit	Yellow Lock	Added Option	Call Option	Passage Option	Queue Option	NTCIP Occupancy	NTCIP Volume	ECPI Log	Red Lock
1	1	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	2	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	3	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
1	4	1	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	1	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	2	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	3	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
2	4	2	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	1	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	2	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	3	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
3	4	3	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	1	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	2	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	3	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
4	4	4	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	1	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	2	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	3	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
5	4	5	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	1	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	2	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	3	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
6	4	6	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	1	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	2	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	3	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
7	4	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	1	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	2	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	3	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
8	4	8	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	1	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	2	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	3	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
9	4	9	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	1	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	2	7	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	3	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
10	4	10	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	2	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	3	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
11	4	11	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	2	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	3	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
12	4	12	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
13	2	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
13	3	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No

13	4	13	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	2	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	3	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
14	4	14	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	2	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	3	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
15	4	15	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	2	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	3	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No
16	4	16	0	0.0	0.0	0	No	No	Yes	Yes	No	No	No	No	No

Ped and System Detector Options
(MM)6-4

Phase Ped Detector

Local Ped Detector	Number
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

Local System Detector

Local System Detector	Number

Louisville - S Boulder Rd & Main

Detectors

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Log - Speed Detector Setup (MM)6-5

NTCIP Log Period: 60	ECPI Log Period: TBAP	Length Unit: Inch

Speed Detector	Local Detector	One/Two Detector	Vehicle Length	Trap Length	Enable Log
1	0	1	0	0	No
2	0	1	0	0	No
3	0	1	0	0	No
4	0	1	0	0	No
5	0	1	0	0	No
6	0	1	0	0	No
7	0	1	0	0	No
8	0	1	0	0	No
9	0	1	0	0	No
10	0	1	0	0	No
11	0	1	0	0	No
12	0	1	0	0	No
13	0	1	0	0	No
14	0	1	0	0	No
15	0	1	0	0	No
16	0	1	0	0	No

Vehicle Detector Diagnostics (MM)6-6

Plan	Detector	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
1	1	0	0	0	1	255	0
1	2	0	0	0	1	255	0
1	3	0	0	0	1	255	0
1	4	0	0	0	1	255	0
1	5	0	0	0	1	255	0
1	6	0	0	0	1	255	0
1	7	0	0	0	1	255	0
1	8	0	0	0	1	255	0
1	9	0	0	0	1	255	0
1	10	0	0	0	1	255	0
1	11	0	0	0	1	255	0
1	12	0	0	0	1	255	0
1	13	0	0	0	1	255	0
1	14	0	0	0	1	255	0
1	15	0	0	0	1	255	0
1	16	0	0	0	1	255	0
1	17	0	0	0	1	255	0
1	18	0	0	0	1	255	0
1	19	0	0	0	1	255	0
1	20	0	0	0	1	255	0
1	21	0	0	0	1	255	0
1	22	0	0	0	1	255	0
1	23	0	0	0	1	255	0
1	24	0	0	0	1	255	0
1	25	0	0	0	1	255	0
1	26	0	0	0	1	255	0
1	27	0	0	0	1	255	0
1	28	0	0	0	1	255	0

1	29	0	0	0	1	255	0
1	30	0	0	0	1	255	0
1	31	0	0	0	1	255	0
1	32	0	0	0	1	255	0
1	33	0	0	0	1	255	0
1	34	0	0	0	1	255	0
1	35	0	0	0	1	255	0
1	36	0	0	0	1	255	0
1	37	0	0	0	1	255	0
1	38	0	0	0	1	255	0
1	39	0	0	0	1	255	0
1	40	0	0	0	1	255	0
1	41	0	0	0	1	255	0
1	42	0	0	0	1	255	0
1	43	0	0	0	1	255	0
1	44	0	0	0	1	255	0
1	45	0	0	0	1	255	0
1	46	0	0	0	1	255	0
1	47	0	0	0	1	255	0
1	48	0	0	0	1	255	0
1	49	0	0	0	1	255	0
1	50	0	0	0	1	255	0
1	51	0	0	0	1	255	0
1	52	0	0	0	1	255	0
1	53	0	0	0	1	255	0
1	54	0	0	0	1	255	0
1	55	0	0	0	1	255	0
1	56	0	0	0	1	255	0
1	57	0	0	0	1	255	0
1	58	0	0	0	1	255	0
1	59	0	0	0	1	255	0
1	60	0	0	0	1	255	0
1	61	0	0	0	1	255	0
1	62	0	0	0	1	255	0
1	63	0	0	0	1	255	0
1	64	0	0	0	1	255	0
2	1	0	0	0	1	255	0
2	2	0	0	0	1	255	0
2	3	0	0	0	1	255	0
2	4	0	0	0	1	255	0
2	5	0	0	0	1	255	0
2	6	0	0	0	1	255	0
2	7	0	0	0	1	255	0
2	8	0	0	0	1	255	0
2	9	0	0	0	1	255	0
2	10	0	0	0	1	255	0
2	11	0	0	0	1	255	0
2	12	0	0	0	1	255	0
2	13	0	0	0	1	255	0
2	14	0	0	0	1	255	0
2	15	0	0	0	1	255	0
2	16	0	0	0	1	255	0
2	17	0	0	0	1	255	0
2	18	0	0	0	1	255	0
2	19	0	0	0	1	255	0
2	20	0	0	0	1	255	0
2	21	0	0	0	1	255	0
2	22	0	0	0	1	255	0
2	23	0	0	0	1	255	0
2	24	0	0	0	1	255	0

2	25	0	0	0	1	255	0
2	26	0	0	0	1	255	0
2	27	0	0	0	1	255	0
2	28	0	0	0	1	255	0
2	29	0	0	0	1	255	0
2	30	0	0	0	1	255	0
2	31	0	0	0	1	255	0
2	32	0	0	0	1	255	0
2	33	0	0	0	1	255	0
2	34	0	0	0	1	255	0
2	35	0	0	0	1	255	0
2	36	0	0	0	1	255	0
2	37	0	0	0	1	255	0
2	38	0	0	0	1	255	0
2	39	0	0	0	1	255	0
2	40	0	0	0	1	255	0
2	41	0	0	0	1	255	0
2	42	0	0	0	1	255	0
2	43	0	0	0	1	255	0
2	44	0	0	0	1	255	0
2	45	0	0	0	1	255	0
2	46	0	0	0	1	255	0
2	47	0	0	0	1	255	0
2	48	0	0	0	1	255	0
2	49	0	0	0	1	255	0
2	50	0	0	0	1	255	0
2	51	0	0	0	1	255	0
2	52	0	0	0	1	255	0
2	53	0	0	0	1	255	0
2	54	0	0	0	1	255	0
2	55	0	0	0	1	255	0
2	56	0	0	0	1	255	0
2	57	0	0	0	1	255	0
2	58	0	0	0	1	255	0
2	59	0	0	0	1	255	0
2	60	0	0	0	1	255	0
2	61	0	0	0	1	255	0
2	62	0	0	0	1	255	0
2	63	0	0	0	1	255	0
2	64	0	0	0	1	255	0
3	1	0	0	0	1	255	0
3	2	0	0	0	1	255	0
3	3	0	0	0	1	255	0
3	4	0	0	0	1	255	0
3	5	0	0	0	1	255	0
3	6	0	0	0	1	255	0
3	7	0	0	0	1	255	0
3	8	0	0	0	1	255	0
3	9	0	0	0	1	255	0
3	10	0	0	0	1	255	0
3	11	0	0	0	1	255	0
3	12	0	0	0	1	255	0
3	13	0	0	0	1	255	0
3	14	0	0	0	1	255	0
3	15	0	0	0	1	255	0
3	16	0	0	0	1	255	0
3	17	0	0	0	1	255	0
3	18	0	0	0	1	255	0
3	19	0	0	0	1	255	0
3	20	0	0	0	1	255	0

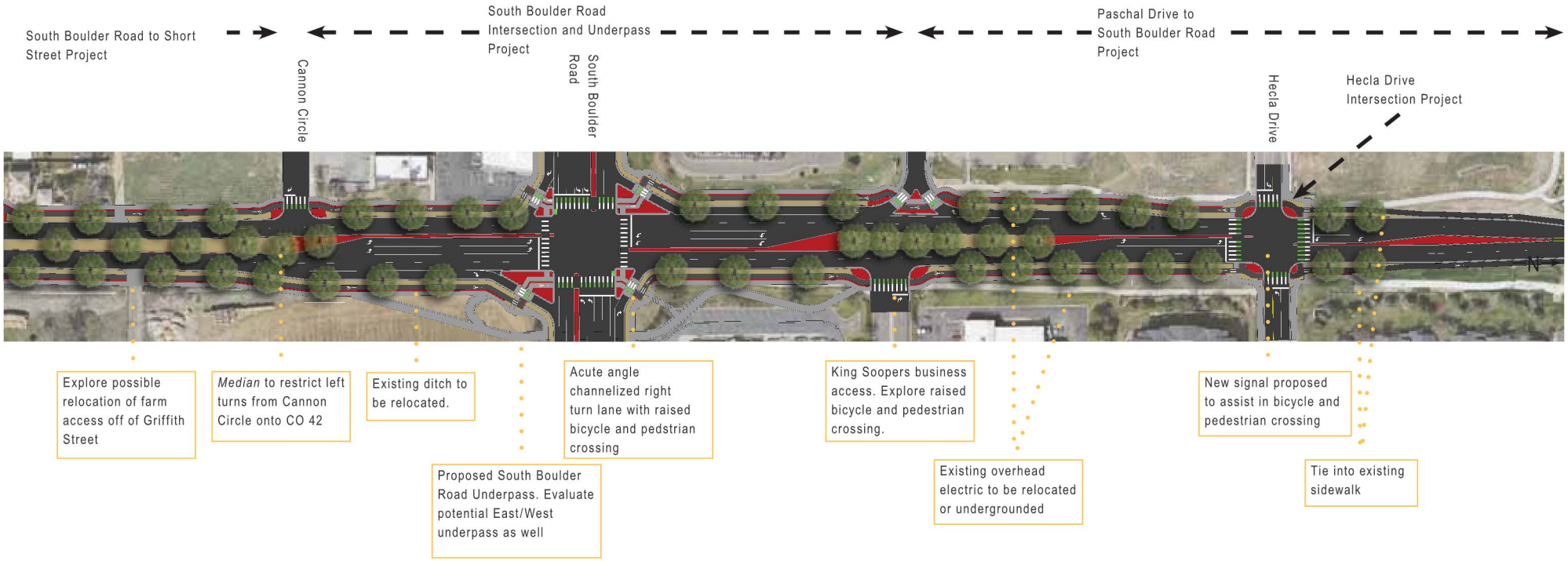
3	21	0	0	0	1	255	0
3	22	0	0	0	1	255	0
3	23	0	0	0	1	255	0
3	24	0	0	0	1	255	0
3	25	0	0	0	1	255	0
3	26	0	0	0	1	255	0
3	27	0	0	0	1	255	0
3	28	0	0	0	1	255	0
3	29	0	0	0	1	255	0
3	30	0	0	0	1	255	0
3	31	0	0	0	1	255	0
3	32	0	0	0	1	255	0
3	33	0	0	0	1	255	0
3	34	0	0	0	1	255	0
3	35	0	0	0	1	255	0
3	36	0	0	0	1	255	0
3	37	0	0	0	1	255	0
3	38	0	0	0	1	255	0
3	39	0	0	0	1	255	0
3	40	0	0	0	1	255	0
3	41	0	0	0	1	255	0
3	42	0	0	0	1	255	0
3	43	0	0	0	1	255	0
3	44	0	0	0	1	255	0
3	45	0	0	0	1	255	0
3	46	0	0	0	1	255	0
3	47	0	0	0	1	255	0
3	48	0	0	0	1	255	0
3	49	0	0	0	1	255	0
3	50	0	0	0	1	255	0
3	51	0	0	0	1	255	0
3	52	0	0	0	1	255	0
3	53	0	0	0	1	255	0
3	54	0	0	0	1	255	0
3	55	0	0	0	1	255	0
3	56	0	0	0	1	255	0
3	57	0	0	0	1	255	0
3	58	0	0	0	1	255	0
3	59	0	0	0	1	255	0
3	60	0	0	0	1	255	0
3	61	0	0	0	1	255	0
3	62	0	0	0	1	255	0
3	63	0	0	0	1	255	0
3	64	0	0	0	1	255	0
4	1	0	0	0	1	255	0
4	2	0	0	0	1	255	0
4	3	0	0	0	1	255	0
4	4	0	0	0	1	255	0
4	5	0	0	0	1	255	0
4	6	0	0	0	1	255	0
4	7	0	0	0	1	255	0
4	8	0	0	0	1	255	0
4	9	0	0	0	1	255	0
4	10	0	0	0	1	255	0
4	11	0	0	0	1	255	0
4	12	0	0	0	1	255	0
4	13	0	0	0	1	255	0
4	14	0	0	0	1	255	0
4	15	0	0	0	1	255	0
4	16	0	0	0	1	255	0

4	17	0	0	0	1	255	0
4	18	0	0	0	1	255	0
4	19	0	0	0	1	255	0
4	20	0	0	0	1	255	0
4	21	0	0	0	1	255	0
4	22	0	0	0	1	255	0
4	23	0	0	0	1	255	0
4	24	0	0	0	1	255	0
4	25	0	0	0	1	255	0
4	26	0	0	0	1	255	0
4	27	0	0	0	1	255	0
4	28	0	0	0	1	255	0
4	29	0	0	0	1	255	0
4	30	0	0	0	1	255	0
4	31	0	0	0	1	255	0
4	32	0	0	0	1	255	0
4	33	0	0	0	1	255	0
4	34	0	0	0	1	255	0
4	35	0	0	0	1	255	0
4	36	0	0	0	1	255	0
4	37	0	0	0	1	255	0
4	38	0	0	0	1	255	0
4	39	0	0	0	1	255	0
4	40	0	0	0	1	255	0
4	41	0	0	0	1	255	0
4	42	0	0	0	1	255	0
4	43	0	0	0	1	255	0
4	44	0	0	0	1	255	0
4	45	0	0	0	1	255	0
4	46	0	0	0	1	255	0
4	47	0	0	0	1	255	0
4	48	0	0	0	1	255	0
4	49	0	0	0	1	255	0
4	50	0	0	0	1	255	0
4	51	0	0	0	1	255	0
4	52	0	0	0	1	255	0
4	53	0	0	0	1	255	0
4	54	0	0	0	1	255	0
4	55	0	0	0	1	255	0
4	56	0	0	0	1	255	0
4	57	0	0	0	1	255	0
4	58	0	0	0	1	255	0
4	59	0	0	0	1	255	0
4	60	0	0	0	1	255	0
4	61	0	0	0	1	255	0
4	62	0	0	0	1	255	0
4	63	0	0	0	1	255	0
4	64	0	0	0	1	255	0

Pedestrian Detector Diagnotics (MM)6-7

Plan	Detector	Counts	Act	Pres	Multiplier

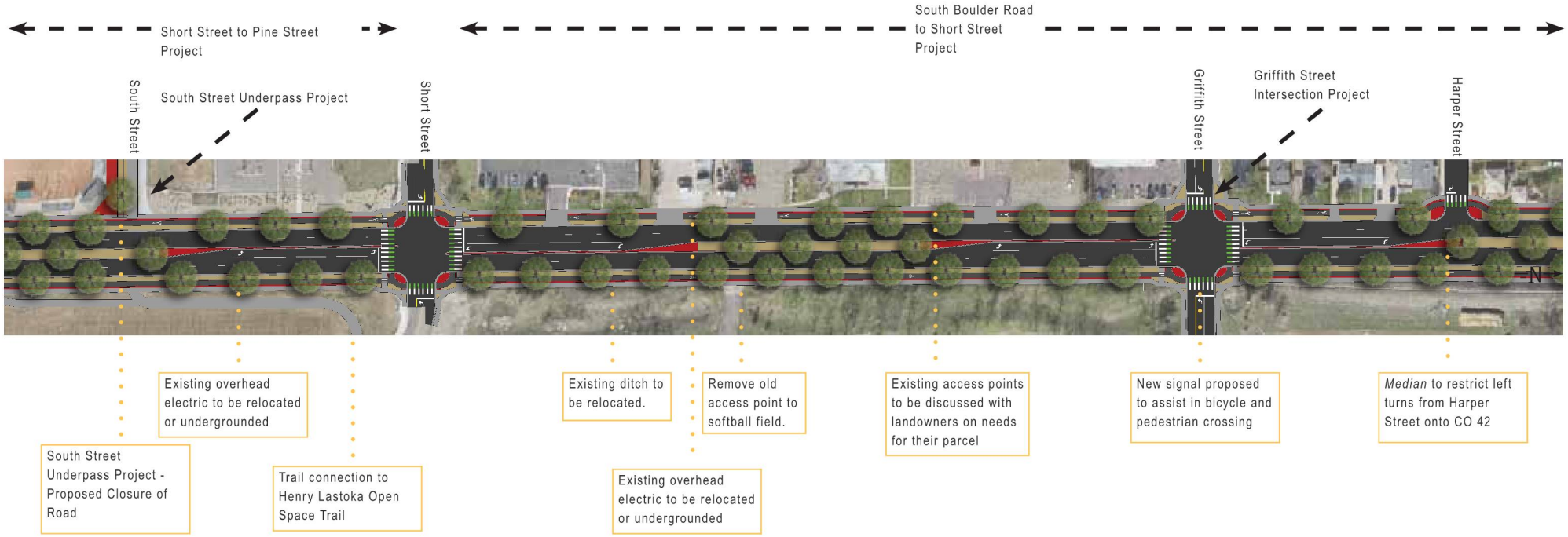
Appendix G: *Future 42* Excerpt of Preferred South Boulder Road and SH 42 Design



Notes for this section:

- South Boulder Road Underpass concept from Summer 2021 is proposed in this section. Explore possiblity of adding east/west underpass further in design.
- Existing ditches to be coordinated with Boulder County Open Space and leasee to relocate in a functional location for better irrigation usage.
- Explore usage of raised crossings for business access points in further design based upon delivery vehicle routes.

Appendix H: *Future 42* Excerpt of Preferred SH 42 and Griffith Street Design



Notes for this section:

- South Street Underpass Concept from Summer 2021 is proposed in this section.
- Existing ditches to be coordinated with Boulder County Open Space and leasee to relocate in a functional location for better irrigation usage.
- Access points anticipated to remain in place, but could be relocated/eliminated based upon conversations with landowners.

Appendix I: *City of Louisville Transportation Master Plan* Excerpt of South Boulder Road Corridor Improvements and Commercial Driveway

PROJECT 1: CORRIDOR IMPROVEMENTS, CONT.

CP5: SOUTH BOULDER ROAD STUDY

Summary

South Boulder Road is a key regional and local corridor that serves neighborhoods and many office and commercial developments along the corridor. Current issues include congestion, safety concerns at intersections, and an uncomfortable bicycle lane.

The City should complete a study in partnership with Boulder County and the Cities of Lafayette and Boulder to develop long-term design and operations for the corridor with a focus on accommodation of improved transit service and multi-modal access and safety improvements.

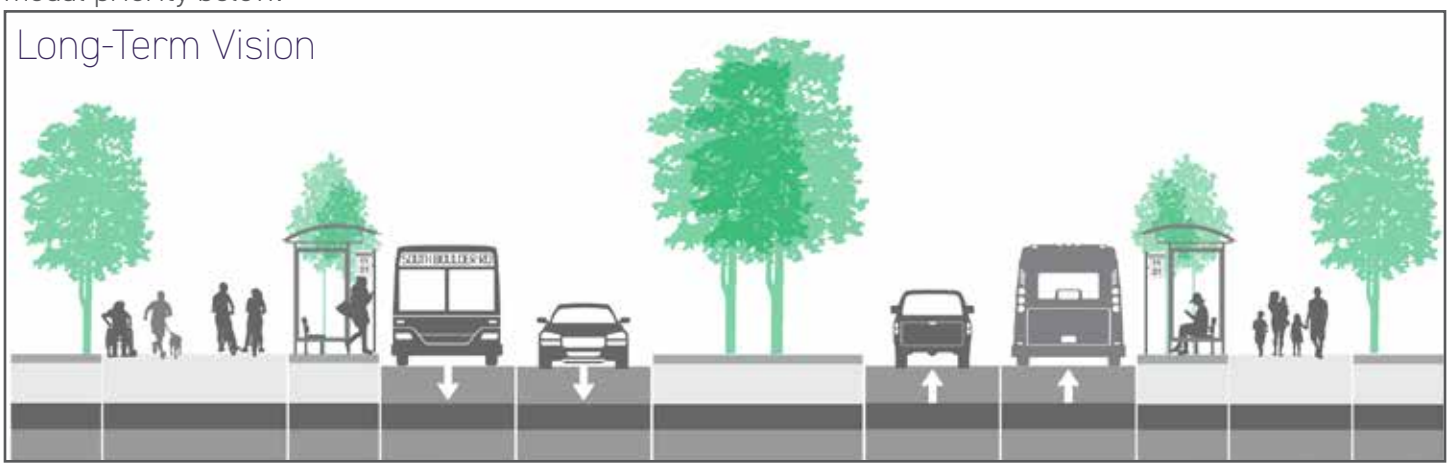
Key Considerations

- South Boulder Road is identified in the Northwest Area Mobility Study (NAMS) for bus rapid transit. This project will evaluate the best options to accommodate bus service within existing right of way.
- Improvements to bus stops and frequency of transit service can help improve ridership and reduce congestion.
- Eliminating the right-turn lanes along the road would have minimal impact on vehicle mobility, while freeing space for sidewalks and a bikeway along the corridor, and decreasing crossing distances for people walking.
- The community desires additional underpasses along the corridor and several at-grade crossing improvements are currently planned as short-term high-priority projects.

Implementation

The City should partner with Lafayette, Boulder County and City of Boulder on a regional study that focuses on how to prioritize transit in the corridor. The study should also focus on preferred allocation of the right-of-way and regional consistency along the corridor for all modes of travel. Funding sources for final implementation will likely include multiple sources.

A vision for the corridor that can be utilized for future consideration and project development is provided in the example cross-section and modal priority below.



Appendix J: *Louisville South Boulder Road Connectivity Plan* Excerpt of South Boulder Road and Main StreetFuture Pedestrian Underpass

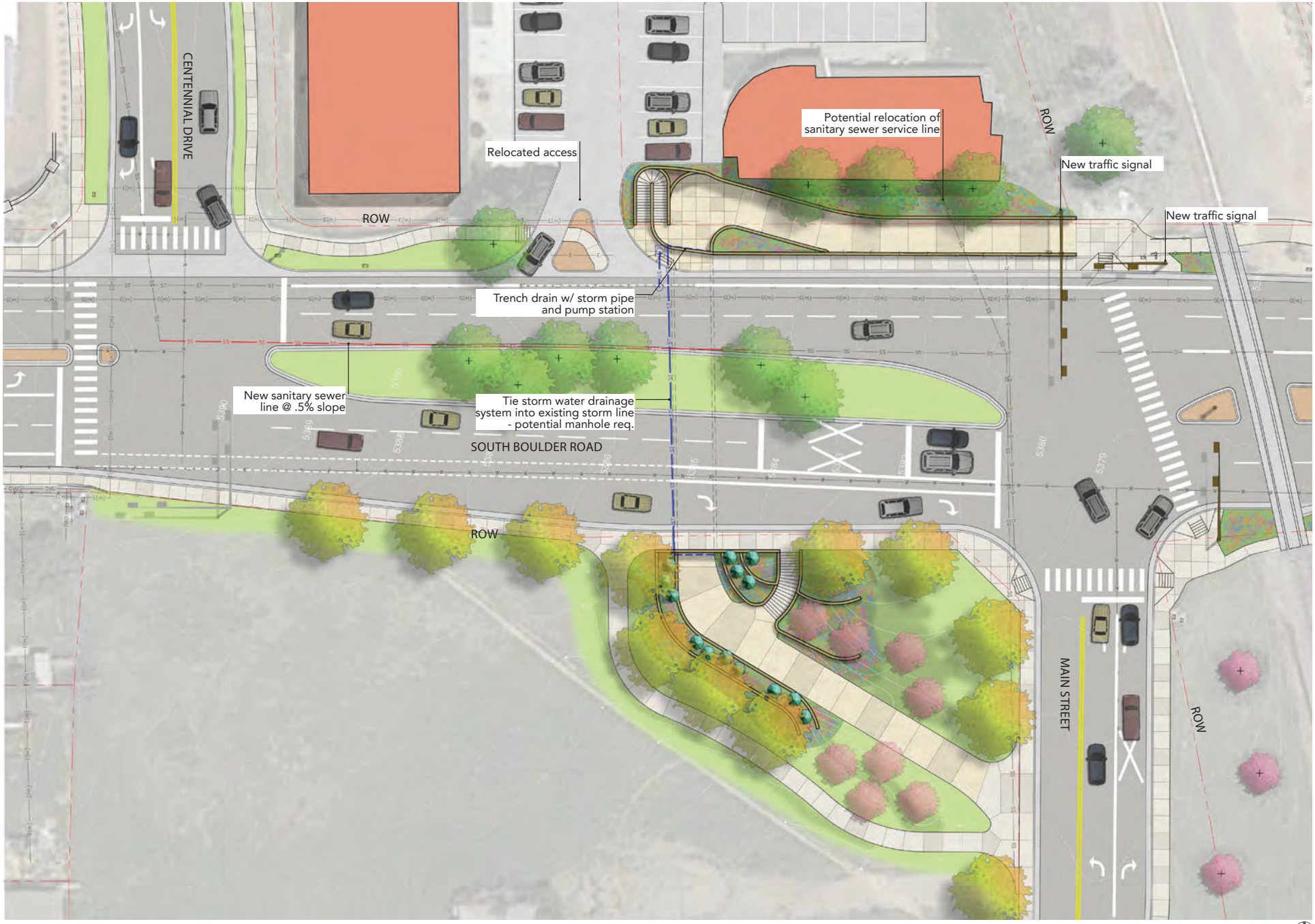


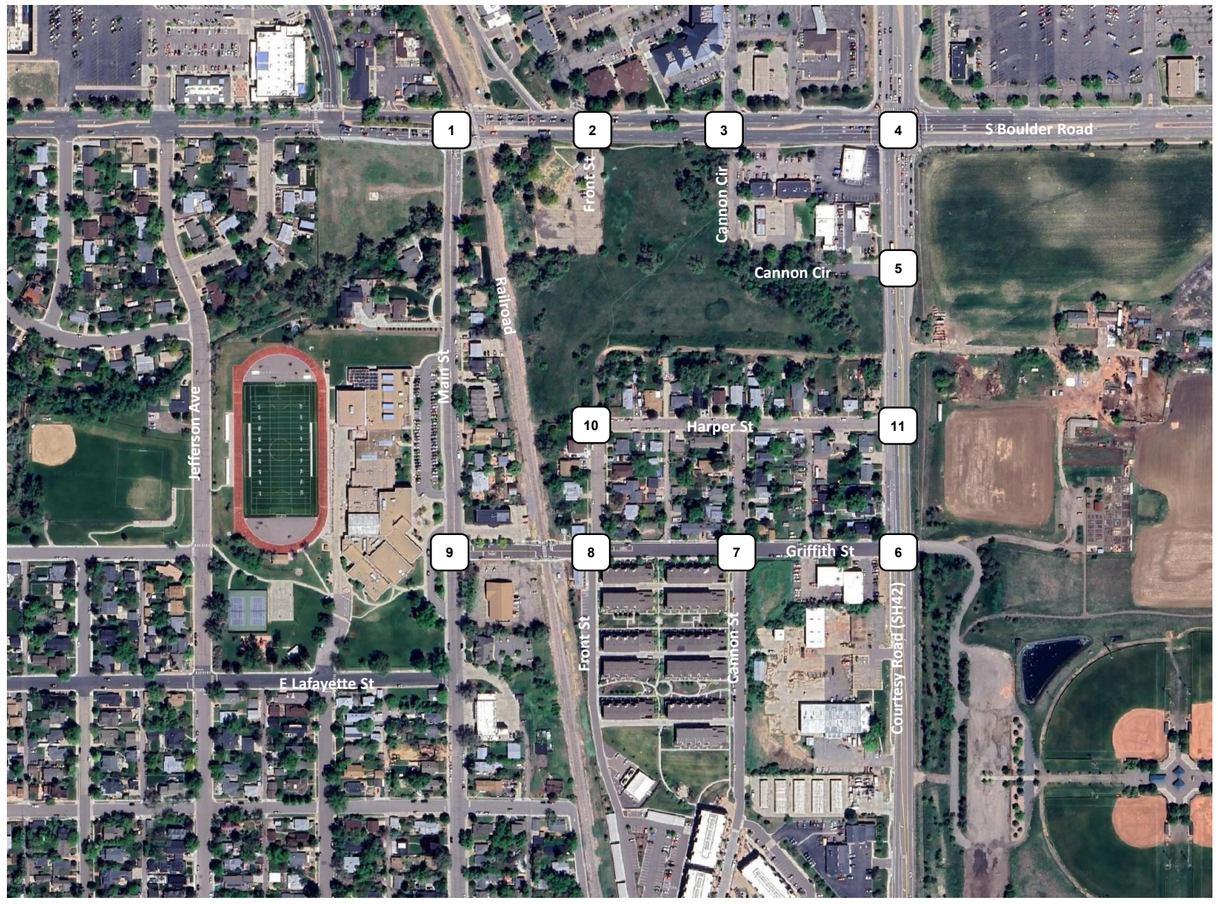
Figure 2: Main Street Undercrossing Plan Rendering

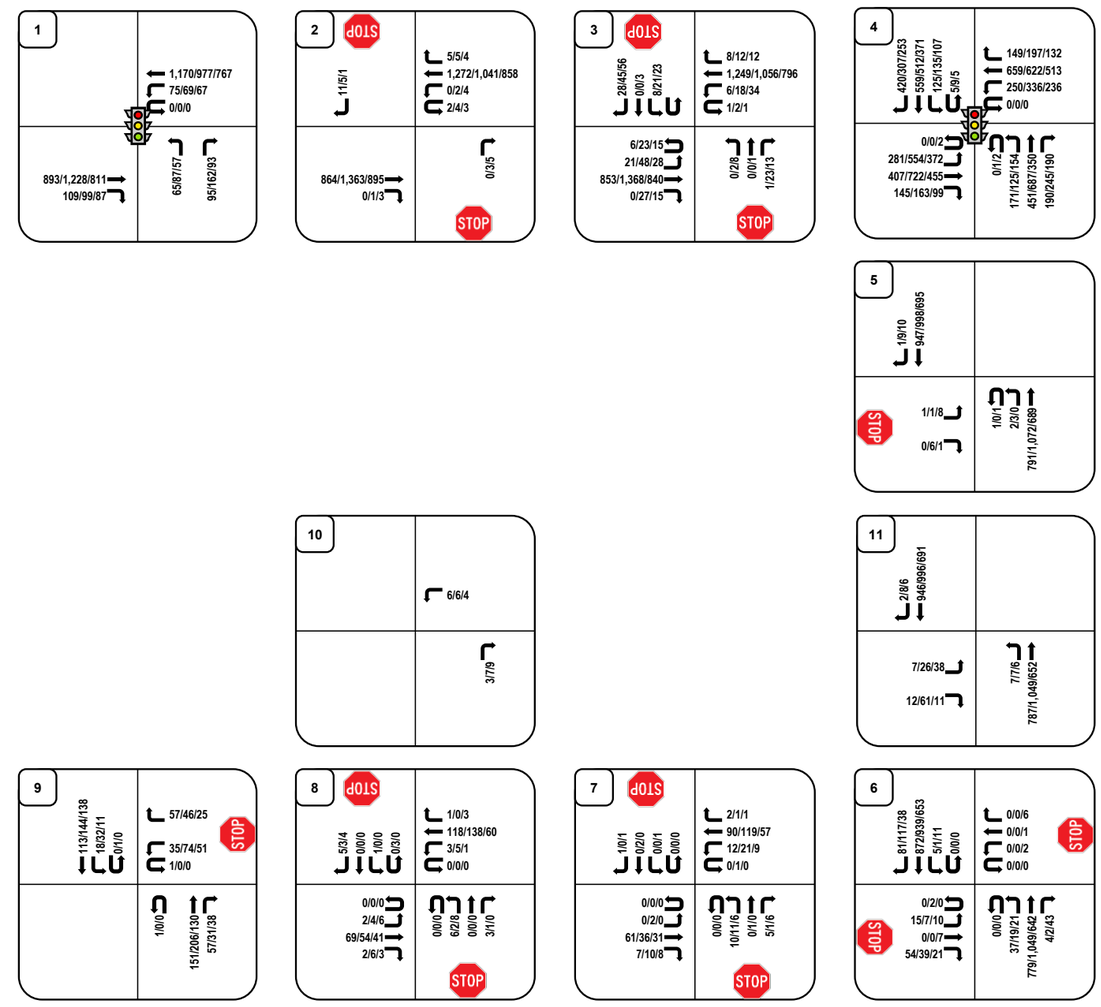
0 10 20 40'

Main Street Undercrossing Plan Rendering

Appendix K: Additional Figures

Figure AP01: Year 2024 Existing Traffic





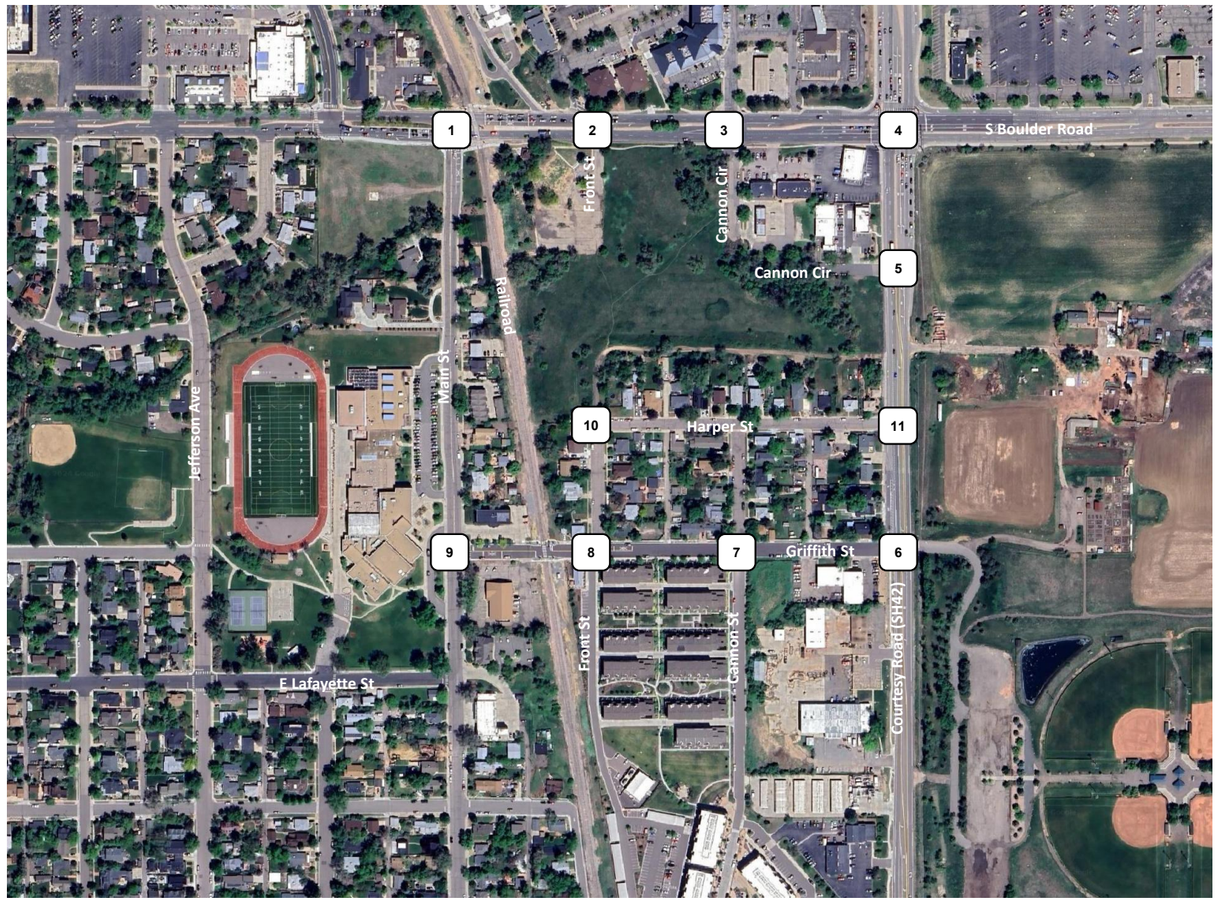
McDowell Engineering LLC
Transportation Engineering Consultants

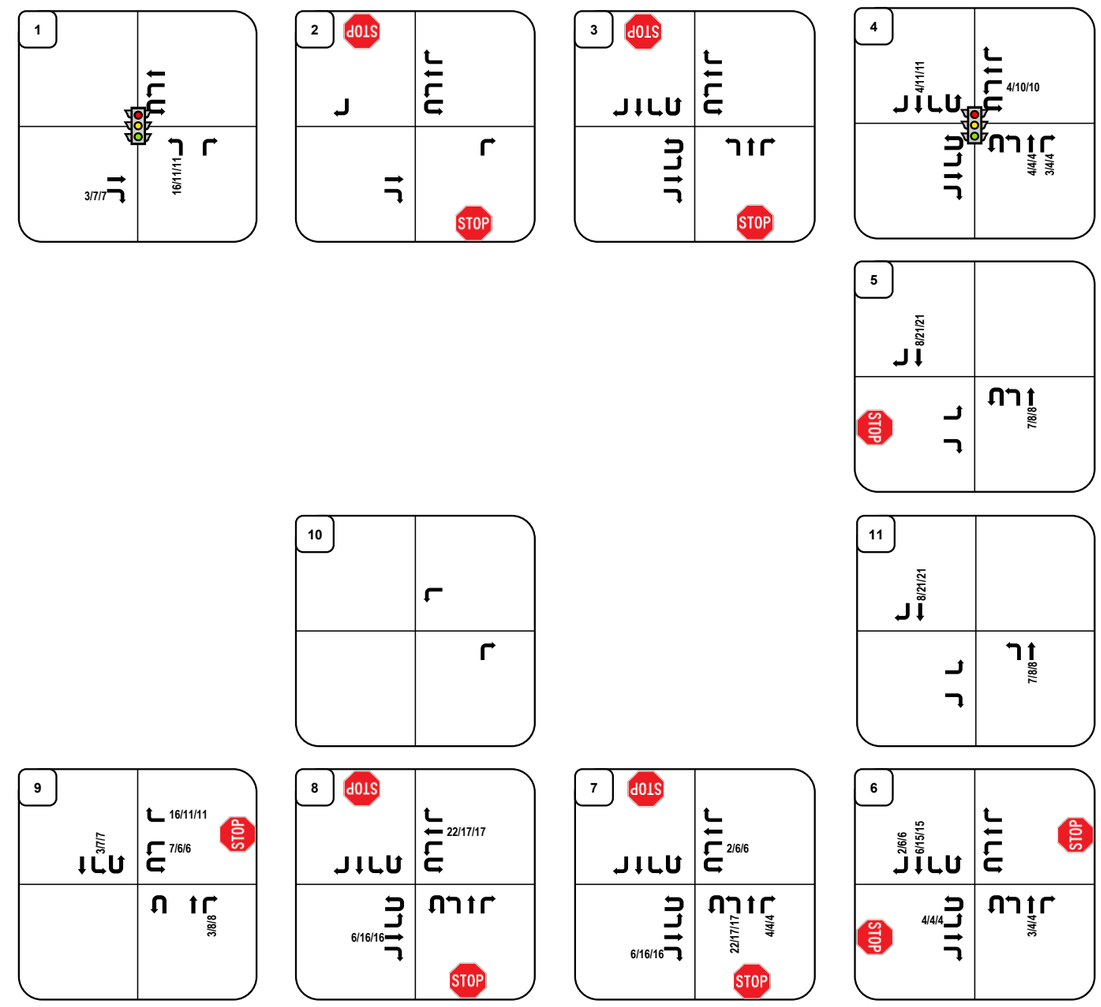
LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

Project Number	M1663
Prepared By	GWS
	9/28/2026

Coal Creek Station
Louisville, CO

Figure AP02: Year 2026 Background Traffic (Delo Boom Development)





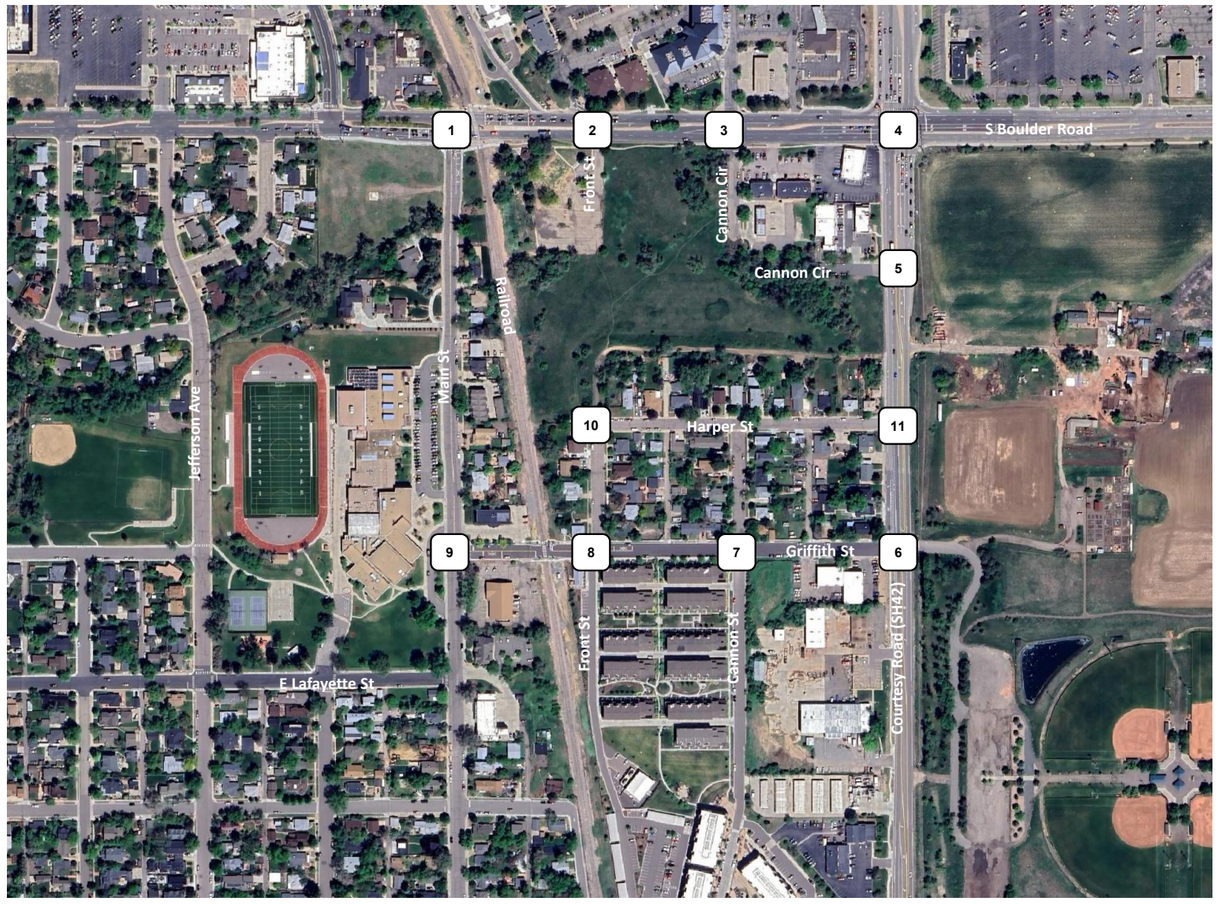
McDowell Engineering LLC
Transportation Engineering Consultants

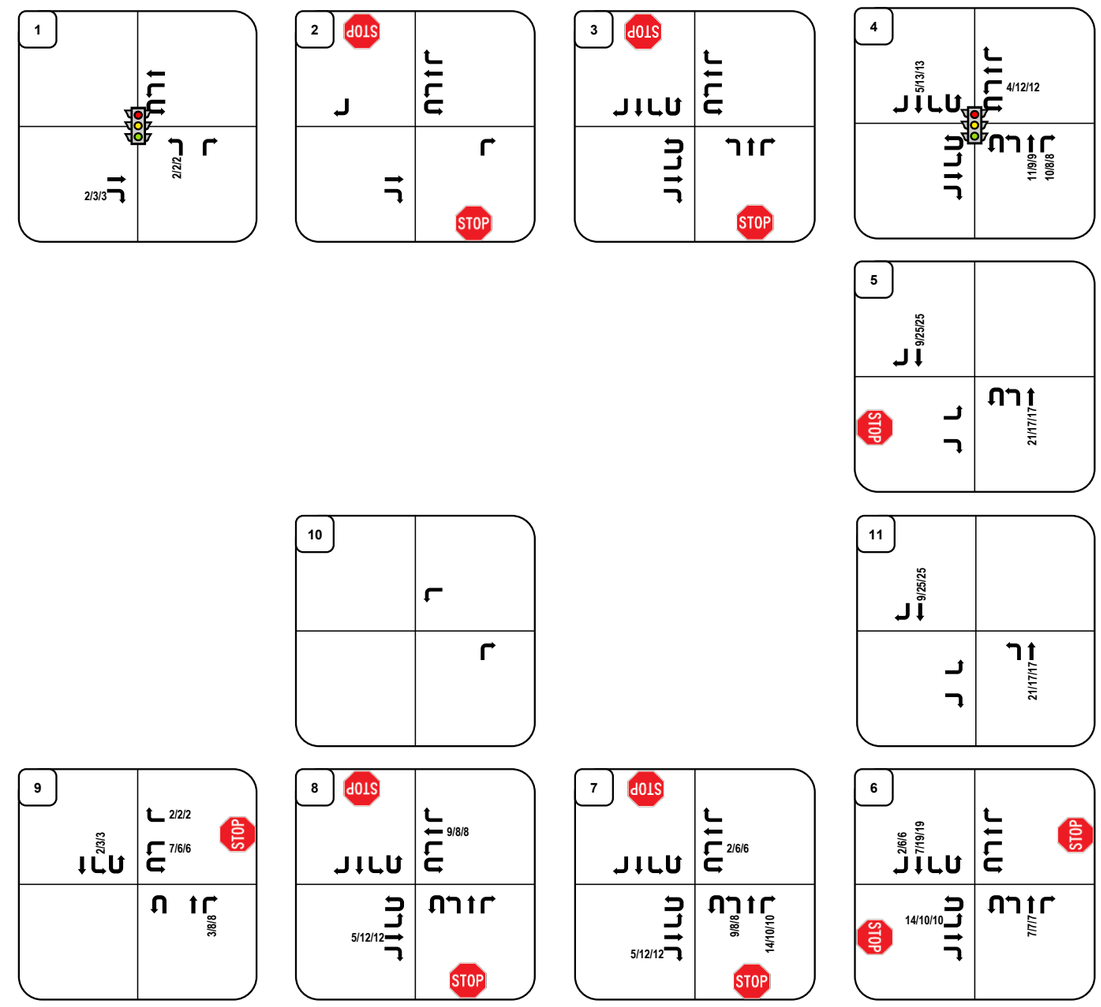
LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

Project Number	M1663
Prepared By	GWS
	9/28/2026

Coal Creek Station
Louisville, CO

Figure AP03: Year 2045 Background Traffic (Delo Boom Development)





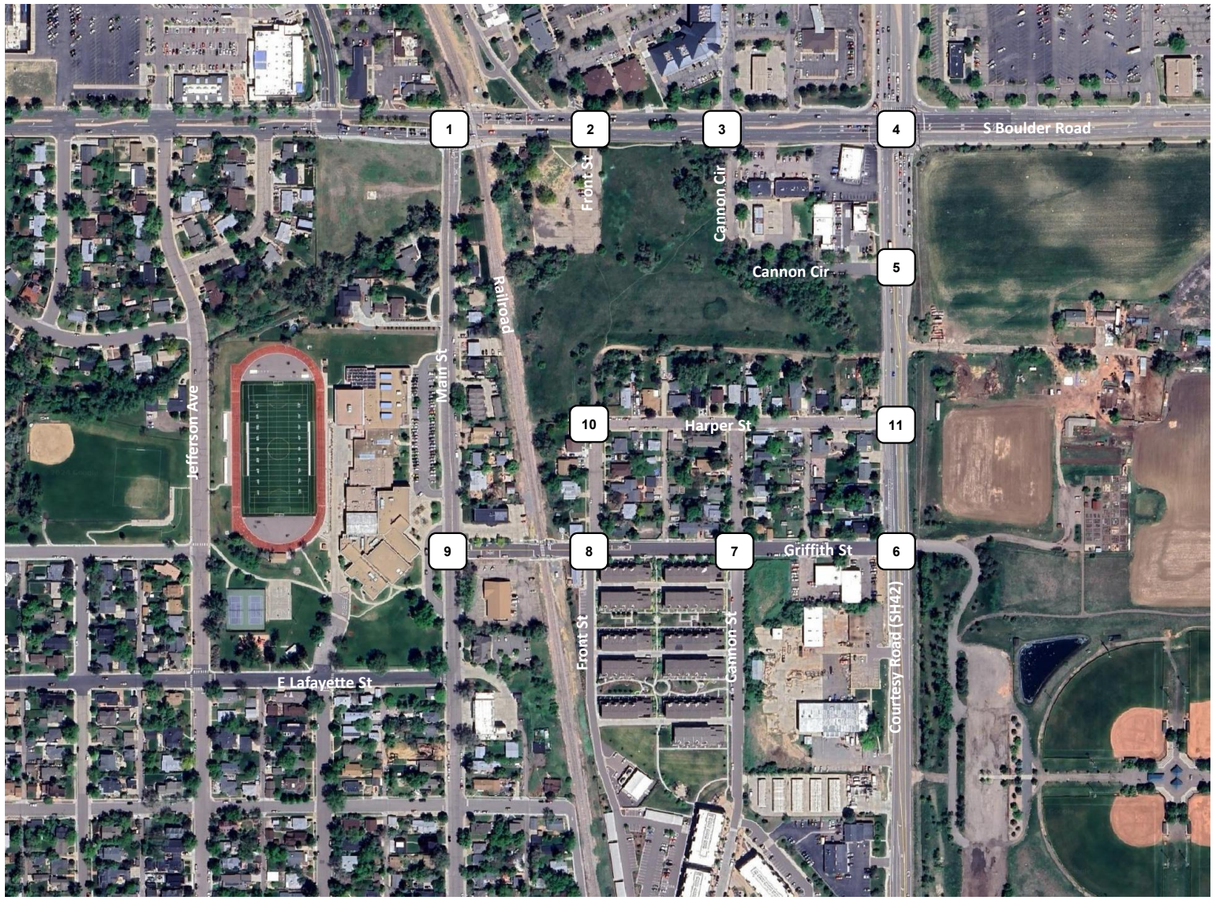
LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

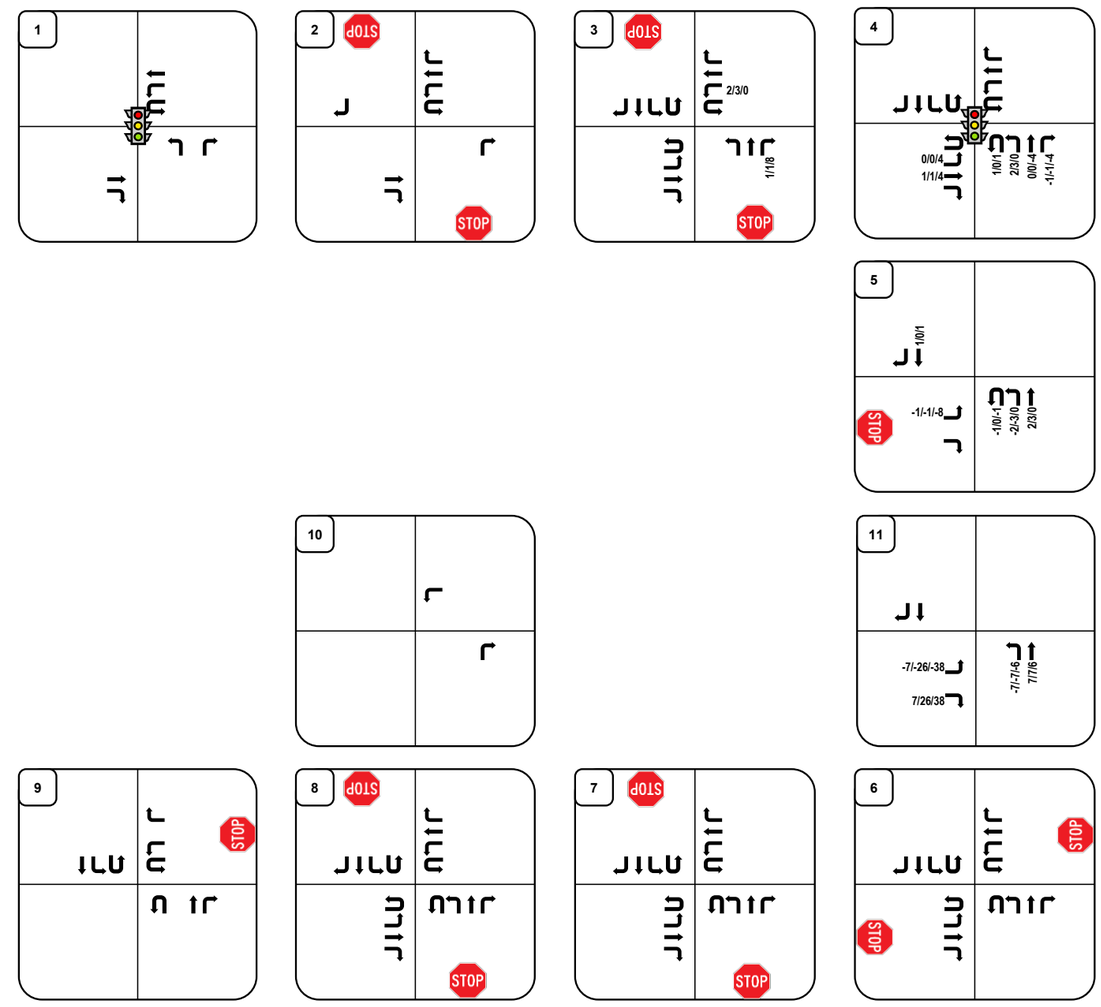
McDowell Engineering, LLC
Transportation Engineering Consultants

Coal Creek Station
Louisville, CO

Project Number	M1663
Prepared By	GWS
	9/28/2026

Figure AP04: Year 2045 Background Adjust (Int #5 & #6 Redistribution)





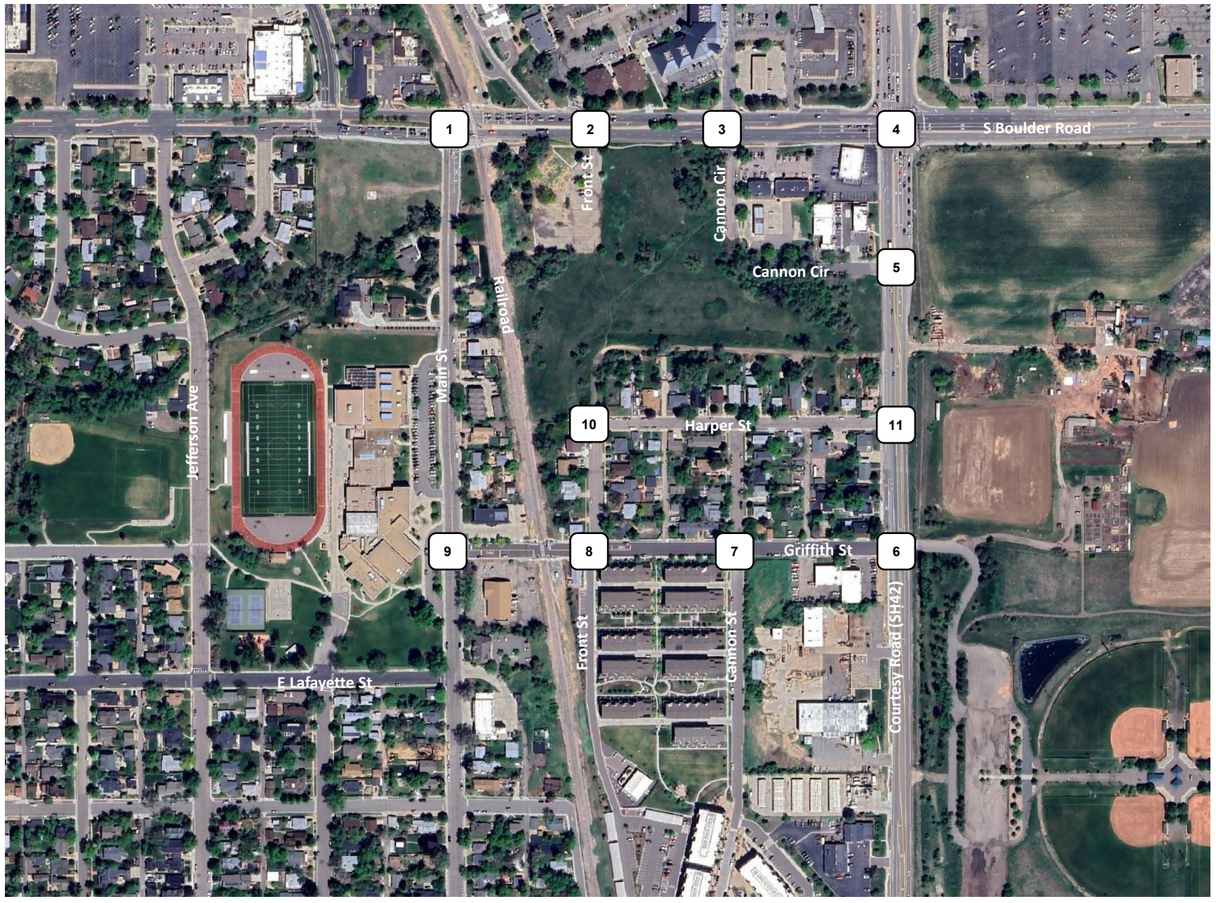
LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

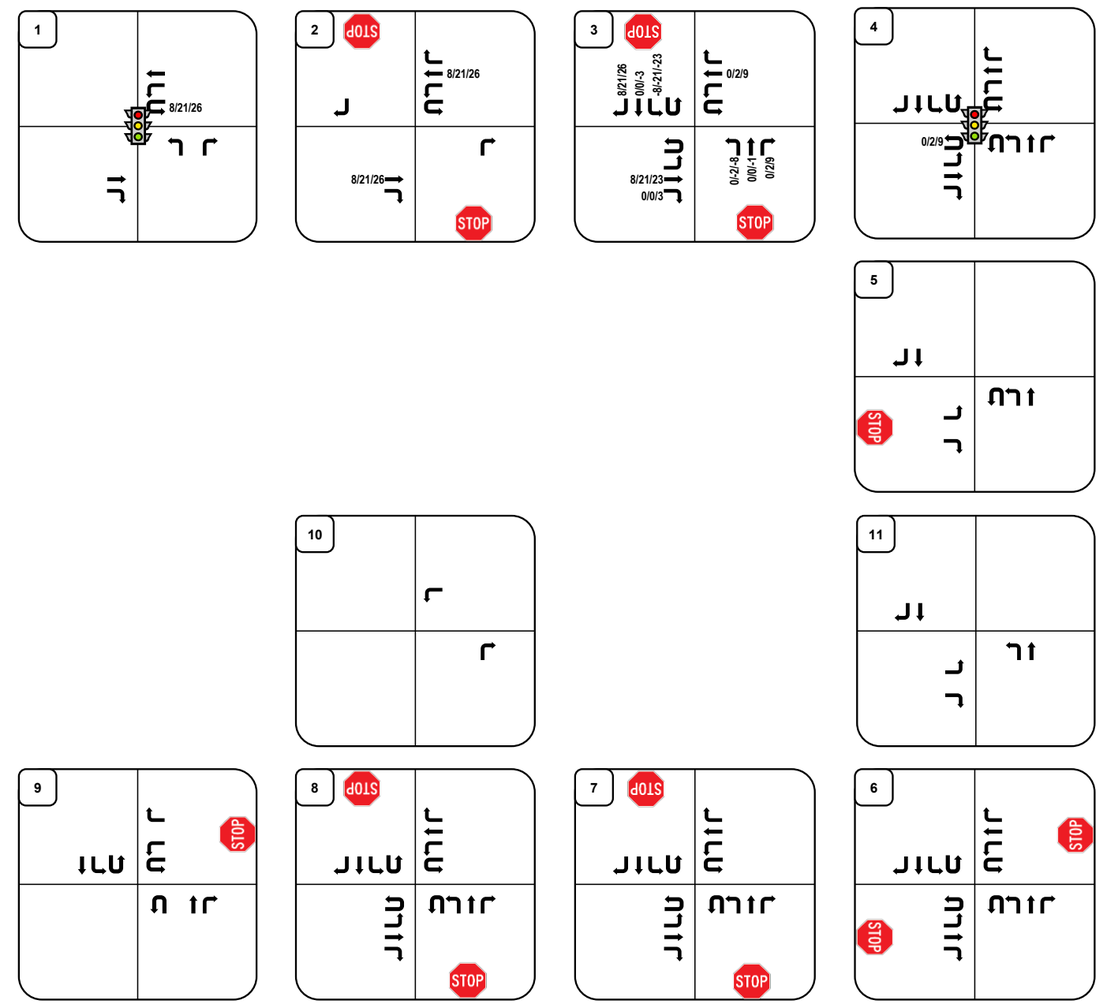
McDowell Engineering, LLC
Transportation Engineering Consultants

Coal Creek Station
Louisville, CO

Project Number	M1663
Prepared By	GWS
	9/28/2026

Figure AP05: Background Adjust for Total (Int #3 Redistribution)





LEGEND:
Directional Distribution = Inbound% (Outbound %)
AM/PM/SAT Volumes = XX/XX/XX VPH (in PCEs)
Turning Movements

McDowell Engineering LLC
Transportation Engineering Consultants

Coal Creek Station
Louisville, CO

Project Number	M1663
Prepared By	GWS
	9/28/2026

Appendix L: Synchro Modeling Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	916	112	75	1201	81	95
Future Volume (vph)	916	112	75	1201	81	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97	1.00		0.99	0.95
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.244		0.950	
Satd. Flow (perm)	3539	1531	454	3539	1759	1505
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		122				103
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	996	122	82	1305	88	103
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	87.8	87.8	98.1	98.1	13.9	12.9
Actuated g/C Ratio	0.73	0.73	0.82	0.82	0.12	0.11
v/c Ratio	0.38	0.11	0.18	0.45	0.43	0.41
Control Delay	7.5	1.3	5.1	5.9	55.0	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	1.3	5.1	5.9	55.0	13.9
LOS	A	A	A	A	E	B
Approach Delay	6.8			5.9	32.9	
Approach LOS	A			A	C	
Queue Length 50th (ft)	160	0	16	151	62	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	204	19	m30	206	115	52
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2589	1152	481	2893	249	289
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.11	0.17	0.45	0.35	0.36

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 23 (19%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	887	0	2	0	1305	5	0	0	0	0	0
Future Volume (vph)	0	887	0	2	0	1305	5	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.999						
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1863	0	1770	3536	0	0	0	1863	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1863	0	1770	3536	0	0	0	1863	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	964	0	0	2	1423	0	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 47.8%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	12
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	887	0	2	0	1305	5	0	0	0	0	0	11
Future Vol, veh/h	0	887	0	2	0	1305	5	0	0	0	0	0	11
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	964	0	2	0	1418	5	0	0	0	0	0	12

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	964	974	0	0	-	-	497	-	-	727
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	350	704	-	-	0	0	519	0	0	366
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	350	350	-	-	-	-	512	-	-	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	15.3
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	350	-	-	361
HCM Lane V/C Ratio	-	-	-	0.006	-	-	0.033
HCM Control Delay (s)	0	-	-	15.3	-	-	15.3
HCM Lane LOS	A	-	-	C	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	875	0	1	6	1282	8	0	0	1	8
Future Volume (vph)	6	21	875	0	1	6	1282	8	0	0	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.999			0.865		
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3539	0	0	1770	3536	0	0	1611	0	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3539	0	0	1770	3536	0	0	1611	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	951	0	0	8	1402	0	0	1	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	28
Future Volume (vph)	0	28
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.896	
Flt Protected	0.989	
Satd. Flow (prot)	1651	0
Flt Permitted	0.989	
Satd. Flow (perm)	1651	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	39	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	1.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	21	875	0	1	6	1282	8	0	0	1	8	0	28
Future Vol, veh/h	6	21	875	0	1	6	1282	8	0	0	1	8	0	28
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	23	951	0	1	7	1393	9	0	0	1	9	0	30

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1402	1412	0	0	951	961	0	0	1739	2449	491	1965	2445	716
Stage 1	-	-	-	-	-	-	-	-	1021	1021	-	1424	1424	-
Stage 2	-	-	-	-	-	-	-	-	718	1428	-	541	1021	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	183	479	-	-	357	712	-	-	56	31	523	38	31	373
Stage 1	-	-	-	-	-	-	-	-	253	312	-	143	200	-
Stage 2	-	-	-	-	-	-	-	-	386	199	-	493	312	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	338	338	-	-	618	618	-	-	47	27	516	35	27	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	47	27	-	35	27	-
Stage 1	-	-	-	-	-	-	-	-	229	282	-	130	195	-
Stage 2	-	-	-	-	-	-	-	-	348	194	-	448	282	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	12	50
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	516	338	-	-	618	-	-	118
HCM Lane V/C Ratio	0.002	0.087	-	-	0.012	-	-	0.332
HCM Control Delay (s)	12	16.6	-	-	10.9	-	-	50
HCM Lane LOS	B	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0	0.3	-	-	0	-	-	1.3

4: Courtesy Road (SH 42) & S Boulder Road
2026 Background AM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	288	418	149	261	676	153	175	467	198	5	128	578
Future Volume (vph)	288	418	149	261	676	153	175	467	198	5	128	578
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	225		270	0		0		185	
Storage Lanes	2		0	2		1	2		0		2	
Taper Length (ft)	80			135			70				155	
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.95	0.95	0.95	0.97	0.95
Ped Bike Factor		1.00				0.98		0.99				
Frt		0.961				0.850		0.955				
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	3385	0	3433	3539	1583	3433	3363	0	0	3433	3539
Flt Permitted	0.950			0.950			0.950				0.571	
Satd. Flow (perm)	3433	3385	0	3433	3539	1546	3433	3363	0	0	2063	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		42				182		59				
Link Speed (mph)		35			35			45				45
Link Distance (ft)		465			1815			418				1337
Travel Time (s)		9.1			35.4			6.3				20.3
Confl. Peds. (#/hr)			5			10			5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	313	616	0	284	735	166	190	723	0	0	144	628
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		custom	Prot	NA
Protected Phases	5	2		1	6		3	8			7	4
Permitted Phases						6				7		
Detector Phase	5	2		1	6	6	3	8		7	7	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	6.0		5.0	5.0	6.0
Minimum Split (s)	10.0	37.0		10.0	37.0	37.0	10.0	40.0		10.0	10.0	36.0
Total Split (s)	20.0	41.0		20.0	41.0	41.0	16.0	47.0		12.0	12.0	43.0
Total Split (%)	16.7%	34.2%		16.7%	34.2%	34.2%	13.3%	39.2%		10.0%	10.0%	35.8%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0		3.0	3.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
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)	5.0	6.0		5.0	6.0	6.0	5.0	6.0			5.0	6.0
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	Max	Max	None	Max		None	None	Max
Act Effct Green (s)	15.0	36.1		13.9	35.0	35.0	10.4	41.0			7.0	37.6
Actuated g/C Ratio	0.12	0.30		0.12	0.29	0.29	0.09	0.34			0.06	0.31
v/c Ratio	0.73	0.59		0.71	0.71	0.29	0.64	0.61			1.20	0.57
Control Delay	55.1	30.2		61.5	42.5	4.9	63.0	32.6			193.3	37.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay	55.1	30.2		61.5	42.5	4.9	63.0	32.6			193.3	37.0
LOS	E	C		E	D	A	E	C			F	D
Approach Delay		38.6			41.8			38.9				47.6
Approach LOS		D			D			D				D
Queue Length 50th (ft)	122	201		109	267	0	74	224			~69	214

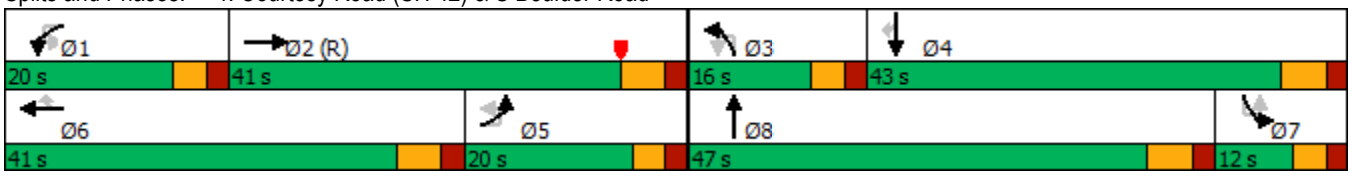
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	431
Future Volume (vph)	431
Ideal Flow (vphpl)	1900
Storage Length (ft)	270
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	0.98
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1555
Right Turn on Red	Yes
Satd. Flow (RTOR)	309
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	468
Turn Type	Perm
Protected Phases	
Permitted Phases	4
Detector Phase	4
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	36.0
Total Split (s)	43.0
Total Split (%)	35.8%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	37.6
Actuated g/C Ratio	0.31
v/c Ratio	0.67
Control Delay	17.0
Queue Delay	0.0
Total Delay	17.0
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	103

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Queue Length 95th (ft)	172	266		156	338	41	113	289			#138	276
Internal Link Dist (ft)		385			1735			338				1257
Turn Bay Length (ft)	150			225		270					185	
Base Capacity (vph)	429	1047		429	1032	579	314	1187			120	1107
Starvation Cap Reductn	0	0		0	0	0	0	0			0	0
Spillback Cap Reductn	0	0		0	0	0	0	0			0	0
Storage Cap Reductn	0	0		0	0	0	0	0			0	0
Reduced v/c Ratio	0.73	0.59		0.66	0.71	0.29	0.61	0.61			1.20	0.57

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 42.2 Intersection LOS: D
Intersection Capacity Utilization 84.9% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBR
Queue Length 95th (ft)	229
Internal Link Dist (ft)	
Turn Bay Length (ft)	270
Base Capacity (vph)	699
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.67

Intersection Summary

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1	0	1	2	819	980	1
Future Volume (vph)	1	0	1	2	819	980	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		140			0
Storage Lanes	1	0		1			0
Taper Length (ft)	25			100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor							
Frt							
Flt Protected	0.950			0.950			
Satd. Flow (prot)	1770	0	0	1770	1863	3539	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	1770	0	0	1770	1863	3539	0
Link Speed (mph)	20				45	45	
Link Distance (ft)	418				420	418	
Travel Time (s)	14.3				6.4	6.3	
Confl. Peds. (#/hr)				5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1	0	0	3	890	1066	0
Sign Control	Stop				Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	1	0	1	2	819	980	1
Future Vol, veh/h	1	0	1	2	819	980	1
Conflicting Peds, #/hr	0	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	0	1	2	890	1065	1

Major/Minor	Minor2		Major1			Major2	
Conflicting Flow All	1965	538	1066	1071	0	-	0
Stage 1	1071	-	-	-	-	-	-
Stage 2	894	-	-	-	-	-	-
Critical Hdwy	6.63	6.93	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	3.119	2.219	-	-	-
Pot Cap-1 Maneuver	62	488	227	649	-	-	-
Stage 1	291	-	-	-	-	-	-
Stage 2	398	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	61	486	400	400	-	-	-
Mov Cap-2 Maneuver	61	-	-	-	-	-	-
Stage 1	287	-	-	-	-	-	-
Stage 2	396	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	65.1	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	400	-	61	-	-
HCM Lane V/C Ratio	0.008	-	0.018	-	-
HCM Control Delay (s)	14.1	-	65.1	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	0	54	1	1	1	37	802	4	5	901	83
Future Volume (vph)	19	0	54	1	1	1	37	802	4	5	901	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	225		0	500		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	0			0			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.900				0.850		0.999				0.850
Flt Protected		0.987			0.976		0.950			0.950		
Satd. Flow (prot)	0	1655	0	0	1818	1583	1770	1861	0	1770	1863	1583
Flt Permitted		0.987			0.976		0.950			0.950		
Satd. Flow (perm)	0	1655	0	0	1818	1583	1770	1861	0	1770	1863	1583
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	2	1	40	876	0	5	979	90
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	0	54	1	1	1	37	802	4	5	901	83
Future Vol, veh/h	19	0	54	1	1	1	37	802	4	5	901	83
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	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	59	1	1	1	40	872	4	5	979	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1944	1945	979	2018	2033	874	1069	0	0	876	0	0
Stage 1	989	989	-	954	954	-	-	-	-	-	-	-
Stage 2	955	956	-	1064	1079	-	-	-	-	-	-	-
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	49	65	303	43	57	349	652	-	-	771	-	-
Stage 1	297	325	-	311	337	-	-	-	-	-	-	-
Stage 2	310	336	-	270	295	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	46	61	303	33	53	349	652	-	-	771	-	-
Mov Cap-2 Maneuver	46	61	-	33	53	-	-	-	-	-	-	-
Stage 1	279	323	-	292	316	-	-	-	-	-	-	-
Stage 2	289	316	-	216	293	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	76.4	70.2	0.5	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	652	-	-	123	41	349	771	-	-
HCM Lane V/C Ratio	0.062	-	-	0.645	0.053	0.003	0.007	-	-
HCM Control Delay (s)	10.9	-	-	76.4	97.7	15.3	9.7	-	-
HCM Lane LOS	B	-	-	F	F	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	3.4	0.2	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	61	13	14	90	2	32	0	9	0	0	1
Future Volume (vph)	0	61	13	14	90	2	32	0	9	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.998			0.970			0.865	
Flt Protected					0.994			0.963				
Satd. Flow (prot)	0	1818	0	0	1848	0	0	1740	0	0	1611	0
Flt Permitted					0.994			0.963				
Satd. Flow (perm)	0	1818	0	0	1848	0	0	1740	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	115	0	0	45	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 28.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	61	13	14	90	2	32	0	9	0	0	1
Future Vol, veh/h	0	61	13	14	90	2	32	0	9	0	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	14	15	98	2	35	0	10	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	85	0	0	213	213	83	217	219	109
Stage 1	-	-	-	-	-	-	78	78	-	134	134	-
Stage 2	-	-	-	-	-	-	135	135	-	83	85	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1512	-	-	744	684	976	739	679	945
Stage 1	-	-	-	-	-	-	931	830	-	869	785	-
Stage 2	-	-	-	-	-	-	868	785	-	925	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1505	-	-	730	670	967	718	665	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	730	670	-	718	665	-
Stage 1	-	-	-	-	-	-	926	826	-	865	772	-
Stage 2	-	-	-	-	-	-	853	772	-	911	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	9.9	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	772	1479	-	-	1505	-	-	936
HCM Lane V/C Ratio	0.058	-	-	-	0.01	-	-	0.001
HCM Control Delay (s)	9.9	0	-	-	7.4	0	-	8.9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	75	2	3	140	1	6	0	3	1	0	5
Future Volume (vph)	2	75	2	3	140	1	6	0	3	1	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.999			0.959			0.887	
Flt Protected		0.999			0.999			0.966			0.992	
Satd. Flow (prot)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Flt Permitted		0.999			0.999			0.966			0.992	
Satd. Flow (perm)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	156	0	0	10	0	0	6	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 21.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	75	2	3	140	1	6	0	3	1	0	5
Future Vol, veh/h	2	75	2	3	140	1	6	0	3	1	0	5
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	82	2	3	152	1	7	0	3	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	158	0	0	94	0	0	263	261	98	258	262	163
Stage 1	-	-	-	-	-	-	97	97	-	164	164	-
Stage 2	-	-	-	-	-	-	166	164	-	94	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1422	-	-	1500	-	-	690	644	958	695	643	882
Stage 1	-	-	-	-	-	-	910	815	-	838	762	-
Stage 2	-	-	-	-	-	-	836	762	-	913	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1415	-	-	1486	-	-	674	632	944	685	631	874
Mov Cap-2 Maneuver	-	-	-	-	-	-	674	632	-	685	631	-
Stage 1	-	-	-	-	-	-	900	806	-	833	757	-
Stage 2	-	-	-	-	-	-	825	757	-	905	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	9.9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	745	1415	-	-	1486	-	-	836
HCM Lane V/C Ratio	0.013	0.002	-	-	0.002	-	-	0.008
HCM Control Delay (s)	9.9	7.5	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	42	73	1	151	60	21	113
Future Volume (vph)	1	42	73	1	151	60	21	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								
Frt		0.915			0.962			
Flt Protected		0.982						0.992
Satd. Flow (prot)	0	1674	0	0	1792	0	0	1848
Flt Permitted		0.982						0.992
Satd. Flow (perm)	0	1674	0	0	1792	0	0	1848
Link Speed (mph)		30			30			30
Link Distance (ft)		405			350			1210
Travel Time (s)		9.2			8.0			27.5
Confl. Peds. (#/hr)	70	5	132	5		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	126	0	0	230	0	0	146
Sign Control		Stop			Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 41.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.9

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	42	73	1	151	60	21	113
Future Vol, veh/h	1	42	73	1	151	60	21	113
Conflicting Peds, #/hr	70	5	132	5	0	70	70	0
Sign Control	Stop	Stop	Stop	Free	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	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	79	1	164	65	23	123

Major/Minor	Minor1			Major1			Major2	
Conflicting Flow All	0	441	399	-	0	0	299	0
Stage 1	0	267	-	-	-	-	-	-
Stage 2	0	174	-	-	-	-	-	-
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	0	574	651	-	-	-	1262	-
Stage 1	0	778	-	-	-	-	-	-
Stage 2	0	856	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	522	531	-	-	-	1178	-
Mov Cap-2 Maneuver	0	522	-	-	-	-	-	-
Stage 1	0	710	-	-	-	-	-	-
Stage 2	0	852	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9		1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	1178	-
HCM Lane V/C Ratio	-	-	0.237	0.019	-
HCM Control Delay (s)	-	-	13.9	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	3	0	0
Future Volume (vph)	6	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	3	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	12	7	787	946	2
Future Volume (vph)	7	12	7	787	946	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.916					
Flt Protected	0.981					
Satd. Flow (prot)	1674	0	0	1863	3539	0
Flt Permitted	0.981					
Satd. Flow (perm)	1674	0	0	1863	3539	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	217			369	420	
Travel Time (s)	4.9			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	0	863	1030	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.0%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	12	7	787	946	2
Future Vol, veh/h	7	12	7	787	946	2
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	13	8	855	1028	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1900	515	1030	0	-	0
Stage 1	1029	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	68	506	672	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	66	506	672	-	-	-
Mov Cap-2 Maneuver	66	-	-	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	408	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	672	-	146	-	-
HCM Lane V/C Ratio	0.011	-	0.141	-	-
HCM Control Delay (s)	10.4	0	33.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1260	106	69	1003	98	162
Future Volume (vph)	1260	106	69	1003	98	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97			0.99	0.95
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.146		0.950	
Satd. Flow (perm)	3539	1531	272	3539	1759	1505
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		85				165
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1370	115	75	1090	107	176
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	86.4	86.4	96.7	96.7	15.3	14.3
Actuated g/C Ratio	0.72	0.72	0.81	0.81	0.13	0.12
v/c Ratio	0.54	0.10	0.23	0.38	0.48	0.54
Control Delay	9.6	2.4	7.4	6.6	55.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	2.4	7.4	6.6	55.3	15.3
LOS	A	A	A	A	E	B
Approach Delay	9.0			6.7	30.4	
Approach LOS	A			A	C	
Queue Length 50th (ft)	258	7	17	144	77	8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	322	26	m30	m192	135	75
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2548	1126	344	2850	249	343
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.10	0.22	0.38	0.43	0.51

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1399	1	4	2	1068	5	0	0	3	0	0
Future Volume (vph)	0	1399	1	4	2	1068	5	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1521	1	0	6	1166	0	0	0	3	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	5
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1399	1	4	2	1068	5	0	0	3	0	0	5
Future Vol, veh/h	0	1399	1	4	2	1068	5	0	0	3	0	0	5
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1521	1	4	2	1161	5	0	0	3	0	0	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1521	1532	0	0	-	-	776	-	-	598
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	153	430	-	-	0	0	340	0	0	445
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	193	193	-	-	-	-	335	-	-	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	15.9	13.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	335	-	-	193	-	-	439
HCM Lane V/C Ratio	0.01	-	-	0.034	-	-	0.012
HCM Control Delay (s)	15.9	-	-	24.3	-	-	13.3
HCM Lane LOS	C	-	-	C	-	-	B
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1404	27	2	18	1084	12	2	0	23	21
Future Volume (vph)	23	48	1404	27	2	18	1084	12	2	0	23	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.997				0.998			0.875		
Flt Protected		0.950				0.950				0.996		
Satd. Flow (prot)	0	1770	3529	0	0	1770	3532	0	0	1623	0	0
Flt Permitted		0.950				0.950				0.996		
Satd. Flow (perm)	0	1770	3529	0	0	1770	3532	0	0	1623	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	1555	0	0	22	1191	0	0	27	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	45
Future Volume (vph)	0	45
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.908	
Flt Protected	0.984	
Satd. Flow (prot)	1664	0
Flt Permitted	0.984	
Satd. Flow (perm)	1664	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	72	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	8.9

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	23	48	1404	27	2	18	1084	12	2	0	23	21	0	45
Future Vol, veh/h	23	48	1404	27	2	18	1084	12	2	0	23	21	0	45
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	52	1526	29	2	20	1178	13	2	0	25	23	0	49

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1191	1201	0	0	1555	1565	0	0	2343	2950	793	2161	2958	611
Stage 1	-	-	-	-	-	-	-	-	1705	1705	-	1239	1239	-
Stage 2	-	-	-	-	-	-	-	-	638	1245	-	922	1719	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	250	577	-	-	145	418	-	-	19	14	331	27	14	437
Stage 1	-	-	-	-	-	-	-	-	95	145	-	186	246	-
Stage 2	-	-	-	-	-	-	-	-	431	244	-	291	143	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	381	381	-	-	343	343	-	-	13	10	326	~ 20	10	431
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	13	10	-	~ 20	10	-
Stage 1	-	-	-	-	-	-	-	-	75	115	-	147	228	-
Stage 2	-	-	-	-	-	-	-	-	356	226	-	213	113	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	47.6	$ 324.2
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	111	381	-	-	343	-	-	57
HCM Lane V/C Ratio	0.245	0.203	-	-	0.063	-	-	1.259
HCM Control Delay (s)	47.6	16.9	-	-	16.2	-	-	$ 324.2
HCM Lane LOS	E	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	0.9	0.7	-	-	0.2	-	-	6.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Courtesy Road (SH 42) & S Boulder Road
2026 Background PM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	568	741	167	355	638	202	1	128	709	255	9	139
Future Volume (vph)	568	741	167	355	638	202	1	128	709	255	9	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	225		270		0		0		185
Storage Lanes	2		0	2		1		2		0		2
Taper Length (ft)	80			135				70				155
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	0.95	0.97	0.95	0.95	0.95	0.97
Ped Bike Factor		1.00				0.98			1.00			
Frt		0.972				0.850			0.960			
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	3433	3429	0	3433	3539	1583	0	3433	3382	0	0	3433
Flt Permitted	0.950			0.950				0.308				0.308
Satd. Flow (perm)	3433	3429	0	3433	3539	1546	0	1113	3382	0	0	1113
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		23				210			43			
Link Speed (mph)		35			35				45			
Link Distance (ft)		465			1815				418			
Travel Time (s)		9.1			35.4				6.3			
Confl. Peds. (#/hr)			5			10				5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	617	987	0	386	693	220	0	140	1048	0	0	161
Turn Type	Prot	NA		Prot	NA	Perm	custom	Prot	NA		custom	Prot
Protected Phases	5	2		1	6			3	8			7
Permitted Phases						6	3				7	
Detector Phase	5	2		1	6	6	3	3	8		7	7
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0	10.0	5.0	5.0	6.0		5.0	5.0
Minimum Split (s)	10.0	37.0		10.0	37.0	37.0	10.0	10.0	40.0		10.0	10.0
Total Split (s)	24.0	43.0		18.0	37.0	37.0	18.0	18.0	41.0		18.0	18.0
Total Split (%)	20.0%	35.8%		15.0%	30.8%	30.8%	15.0%	15.0%	34.2%		15.0%	15.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)	5.0	6.0		5.0	6.0	6.0		5.0	6.0			5.0
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead	Lead		Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Max		None	Max	Max	None	None	Max		None	None
Act Effct Green (s)	19.0	37.0		13.0	31.0	31.0		13.0	35.0			13.0
Actuated g/C Ratio	0.16	0.31		0.11	0.26	0.26		0.11	0.29			0.11
v/c Ratio	1.14	0.92		1.04	0.76	0.40		1.17	1.03			1.34
Control Delay	121.1	46.2		109.4	47.3	7.8		180.8	76.8			240.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0			0.0
Total Delay	121.1	46.2		109.4	47.3	7.8		180.8	76.8			240.4
LOS	F	D		F	D	A		F	E			F
Approach Delay		75.0			59.1				89.1			
Approach LOS		E			E				F			
Queue Length 50th (ft)	~288	380		~165	261	6		~66	~444			~83

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	536	315
Future Volume (vph)	536	315
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		270
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.98
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1555
Right Turn on Red		Yes
Satd. Flow (RTOR)		342
Link Speed (mph)	45	
Link Distance (ft)	1337	
Travel Time (s)	20.3	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	583	342
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	36.0	36.0
Total Split (s)	41.0	41.0
Total Split (%)	34.2%	34.2%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	35.0	35.0
Actuated g/C Ratio	0.29	0.29
v/c Ratio	0.56	0.49
Control Delay	38.6	6.0
Queue Delay	0.0	0.0
Total Delay	38.6	6.0
LOS	D	A
Approach Delay	58.3	
Approach LOS	E	
Queue Length 50th (ft)	201	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Queue Length 95th (ft)	#407	#508		#267	332	68		#134	#581			#156
Internal Link Dist (ft)		385			1735				338			
Turn Bay Length (ft)	150			225		270						185
Base Capacity (vph)	543	1073		371	914	555		120	1016			120
Starvation Cap Reductn	0	0		0	0	0		0	0			0
Spillback Cap Reductn	0	0		0	0	0		0	0			0
Storage Cap Reductn	0	0		0	0	0		0	0			0
Reduced v/c Ratio	1.14	0.92		1.04	0.76	0.40		1.17	1.03			1.34

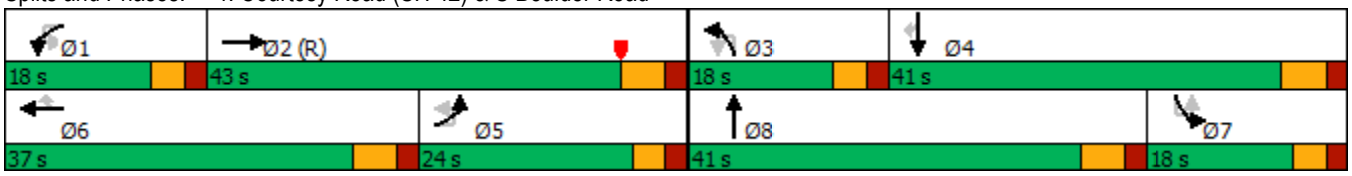
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 70.7 Intersection LOS: E
Intersection Capacity Utilization 92.9% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBT	SBR
Queue Length 95th (ft)	261	70
Internal Link Dist (ft)	1257	
Turn Bay Length (ft)		270
Base Capacity (vph)	1032	695
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.56	0.49

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	6	3	1108	1045	9
Future Volume (vph)	1	6	3	1108	1045	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt	0.882				0.999	
Flt Protected	0.994		0.950			
Satd. Flow (prot)	1633	0	1770	1863	3536	0
Flt Permitted	0.994		0.950			
Satd. Flow (perm)	1633	0	1770	1863	3536	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	0	3	1204	1146	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	6	3	1108	1045	9
Future Vol, veh/h	1	6	3	1108	1045	9
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	7	3	1204	1136	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2356	578	1151	0	-	0
Stage 1	1146	-	-	-	-	-
Stage 2	1210	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	34	460	605	-	-	-
Stage 1	266	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	458	602	-	-	-
Mov Cap-2 Maneuver	33	-	-	-	-	-
Stage 1	263	-	-	-	-	-
Stage 2	280	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	602	-	161	-	-
HCM Lane V/C Ratio	0.005	-	0.047	-	-
HCM Control Delay (s)	11	-	28.5	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	0	39	1	1	1	19	1080	2	1	979	123
Future Volume (vph)	11	0	39	1	1	1	19	1080	2	1	979	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	225		0	500		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	0			0			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.895				0.850						0.850
Flt Protected		0.989			0.976		0.950			0.950		
Satd. Flow (prot)	0	1649	0	0	1818	1583	1770	1863	0	1770	1863	1583
Flt Permitted		0.989			0.976		0.950			0.950		
Satd. Flow (perm)	0	1649	0	0	1818	1583	1770	1863	0	1770	1863	1583
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	2	1	21	1176	0	1	1064	134
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	39	1	1	1	19	1080	2	1	979	123
Future Vol, veh/h	11	0	39	1	1	1	19	1080	2	1	979	123
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	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	42	1	1	1	21	1174	2	1	1064	134

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2284	2284	1064	2371	2417	1175	1198	0	0	1176	0	0
Stage 1	1066	1066	-	1217	1217	-	-	-	-	-	-	-
Stage 2	1218	1218	-	1154	1200	-	-	-	-	-	-	-
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	28	40	271	24	33	233	583	-	-	594	-	-
Stage 1	269	299	-	221	253	-	-	-	-	-	-	-
Stage 2	221	253	-	240	258	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	26	38	271	20	32	233	583	-	-	594	-	-
Mov Cap-2 Maneuver	26	38	-	20	32	-	-	-	-	-	-	-
Stage 1	259	298	-	213	244	-	-	-	-	-	-	-
Stage 2	211	244	-	202	257	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	96.9	115	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	583	-	-	88	25	233	594	-	-
HCM Lane V/C Ratio	0.035	-	-	0.618	0.087	0.005	0.002	-	-
HCM Control Delay (s)	11.4	-	-	96.9	162.3	20.5	11.1	-	-
HCM Lane LOS	B	-	-	F	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.9	0.3	0	0	-	-

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	36	26	1	27	119	1	28	1	5	0	2
Future Volume (vph)	2	36	26	1	27	119	1	28	1	5	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150		150		150	150		150	150	
Storage Lanes	0		0		0		0	0		0	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.945				0.999			0.981			
Flt Protected		0.999				0.991			0.960			
Satd. Flow (prot)	0	1759	0	0	0	1844	0	0	1754	0	0	1863
Flt Permitted		0.999				0.991			0.960			
Satd. Flow (perm)	0	1759	0	0	0	1844	0	0	1754	0	0	1863
Link Speed (mph)		30				30			25			25
Link Distance (ft)		390				439			346			362
Travel Time (s)		8.9				10.0			9.4			9.9
Confl. Peds. (#/hr)	5		5		5		5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	69	0	0	0	160	0	0	36	0	0	2
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 30.6%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	36	26	1	27	119	1	28	1	5	0	2	0
Future Vol, veh/h	2	36	26	1	27	119	1	28	1	5	0	2	0
Conflicting Peds, #/hr	5	0	5	0	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	28	1	29	129	1	30	1	5	0	2	0

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	135	0	0	-	72	0	0	256	257	63	258	271	140
Stage 1	-	-	-	-	-	-	-	62	62	-	193	195	-
Stage 2	-	-	-	-	-	-	-	194	195	-	65	76	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1449	-	-	-	1528	-	-	697	647	1002	695	636	908
Stage 1	-	-	-	-	-	-	-	949	843	-	809	739	-
Stage 2	-	-	-	-	-	-	-	808	739	-	946	832	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1442	-	-	~ -29	~ -29	-	-	688	640	992	683	629	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	688	640	-	683	629	-
Stage 1	-	-	-	-	-	-	-	943	838	-	804	735	-
Stage 2	-	-	-	-	-	-	-	802	735	-	934	827	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2		10.3	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	719	1442	-	-	+	-	-	629
HCM Lane V/C Ratio	0.051	0.002	-	-	-	-	-	0.003
HCM Control Delay (s)	10.3	7.5	0	-	-	-	-	10.7
HCM Lane LOS	B	A	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	70	6	5	155	0	2	0	1	3	0	0
Future Volume (vph)	4	70	6	5	155	0	2	0	1	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0		0	
Storage Lanes	0		0	0		0	0		0		0	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989						0.955				0.932
Flt Protected		0.998			0.999			0.968				0.976
Satd. Flow (prot)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Flt Permitted		0.998			0.999			0.968				0.976
Satd. Flow (perm)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Link Speed (mph)		30			30			25				25
Link Distance (ft)		405			390			333				365
Travel Time (s)		9.2			8.9			9.1				10.0
Confl. Peds. (#/hr)	5		10	10		5	5		5		5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	173	0	0	3	0	0	0	6
Sign Control		Free			Free			Stop				Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 21.9%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	3
Future Volume (vph)	3
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	70	6	5	155	0	2	0	1	3	0	0	3
Future Vol, veh/h	4	70	6	5	155	0	2	0	1	3	0	0	3
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	76	7	5	168	0	2	0	1	3	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	173	0	0	93	0	0	283	281	95	0	276	284	178
Stage 1	-	-	-	-	-	-	98	98	-	0	183	183	-
Stage 2	-	-	-	-	-	-	185	183	-	0	93	101	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1404	-	-	1501	-	-	669	627	962	0	676	625	865
Stage 1	-	-	-	-	-	-	908	814	-	0	819	748	-
Stage 2	-	-	-	-	-	-	817	748	-	0	914	811	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1397	-	-	1487	-	-	654	613	948	0	665	611	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	654	613	-	0	665	611	-
Stage 1	-	-	-	-	-	-	897	803	-	0	812	741	-
Stage 2	-	-	-	-	-	-	807	741	-	0	906	800	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	10	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	729	1397	-	-	1487	-	-	857
HCM Lane V/C Ratio	0.004	0.003	-	-	0.004	-	-	0.004
HCM Control Delay (s)	10	7.6	0	-	7.4	0	-	9.2
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	80	57	206	39	1	39	144
Future Volume (vph)	80	57	206	39	1	39	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							
Frt	0.944		0.979				
Flt Protected	0.972						0.989
Satd. Flow (prot)	1709	0	1824	0	0	0	1842
Flt Permitted	0.972						0.989
Satd. Flow (perm)	1709	0	1824	0	0	0	1842
Link Speed (mph)	30		30				30
Link Distance (ft)	405		350				1210
Travel Time (s)	9.2		8.0				27.5
Confl. Peds. (#/hr)	5	10		7	10	7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	149	0	266	0	0	0	200
Sign Control	Stop		Free				Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 42.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.1

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	80	57	206	39	1	39	144
Future Vol, veh/h	80	57	206	39	1	39	144
Conflicting Peds, #/hr	5	10	0	7	10	7	0
Sign Control	Stop	Stop	Free	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	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	87	62	224	42	1	42	157

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	498	262	0	0	-	273	0
Stage 1	252	-	-	-	-	-	-
Stage 2	246	-	-	-	-	-	-
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	532	777	-	-	-	1290	-
Stage 1	790	-	-	-	-	-	-
Stage 2	795	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	526	764	-	-	~ -41	~ -41	-
Mov Cap-2 Maneuver	526	-	-	-	-	-	-
Stage 1	784	-	-	-	-	-	-
Stage 2	791	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	604	+	-
HCM Lane V/C Ratio	-	-	0.247	-	-
HCM Control Delay (s)	-	-	12.9	-	-
HCM Lane LOS	-	-	B	-	-
HCM 95th %tile Q(veh)	-	-	1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	7	0	0
Future Volume (vph)	6	0	0	7	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	8	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	26	61	7	1049	996	8
Future Volume (vph)	26	61	7	1049	996	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.905				0.999	
Flt Protected	0.985					
Satd. Flow (prot)	1660	0	0	1863	3536	0
Flt Permitted	0.985					
Satd. Flow (perm)	1660	0	0	1863	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	247			369	420	
Travel Time (s)	5.6			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	1148	1092	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 72.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	61	7	1049	996	8
Future Vol, veh/h	26	61	7	1049	996	8
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	66	8	1140	1083	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2244	546	1092	0	-	0
Stage 1	1088	-	-	-	-	-
Stage 2	1156	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	41	483	637	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	40	483	637	-	-	-
Mov Cap-2 Maneuver	40	-	-	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	299	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	118	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	637	-	112	-	-
HCM Lane V/C Ratio	0.012	-	0.844	-	-
HCM Control Delay (s)	10.7	0	118	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	5	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	832	94	67	787	68	93
Future Volume (vph)	832	94	67	787	68	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97	1.00		0.99	0.95
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.271		0.950	
Satd. Flow (perm)	3539	1535	504	3539	1761	1504
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		102				101
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	904	102	73	855	74	101
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	70.0	70.0	12.0	82.0	18.0	18.0
Total Split (%)	70.0%	70.0%	12.0%	82.0%	18.0%	18.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	71.8	71.8	81.5	81.5	10.5	9.5
Actuated g/C Ratio	0.72	0.72	0.82	0.82	0.10	0.10
v/c Ratio	0.36	0.09	0.14	0.30	0.40	0.43
Control Delay	6.6	1.4	3.1	3.2	47.5	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	1.4	3.1	3.2	47.5	14.4
LOS	A	A	A	A	D	B
Approach Delay	6.1			3.2	28.4	
Approach LOS	A			A	C	
Queue Length 50th (ft)	110	0	10	66	45	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	159	16	m17	m94	87	47
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2540	1130	514	2885	246	283
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.09	0.14	0.30	0.30	0.36

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 59 (59%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	918	3	3	4	880	4	0	0	5	0	0
Future Volume (vph)	0	918	3	3	4	880	4	0	0	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	998	3	0	7	961	0	0	0	5	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 36.9%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	918	3	3	4	880	4	0	0	5	0	0	1
Future Vol, veh/h	0	918	3	3	4	880	4	0	0	5	0	0	1
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	998	3	3	4	957	4	0	0	5	0	0	1

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	998	1011	0	0	-	-	514	-	-	496
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	333	681	-	-	0	0	505	0	0	519
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	466	466	-	-	-	-	498	-	-	512
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	12.3	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	498	-	-	466	-	-	512
HCM Lane V/C Ratio	0.011	-	-	0.016	-	-	0.002
HCM Control Delay (s)	12.3	-	-	12.9	-	-	12
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	862	15	1	34	817	12	8	1	13	23
Future Volume (vph)	15	28	862	15	1	34	817	12	8	1	13	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.997				0.998			0.921		
Flt Protected		0.950				0.950				0.982		
Satd. Flow (prot)	0	1770	3529	0	0	1770	3532	0	0	1685	0	0
Flt Permitted		0.950				0.950				0.982		
Satd. Flow (perm)	0	1770	3529	0	0	1770	3532	0	0	1685	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	953	0	0	38	901	0	0	24	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 45.0%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	3	56
Future Volume (vph)	3	56
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.907	
Flt Protected	0.986	
Satd. Flow (prot)	1666	0
Flt Permitted	0.986	
Satd. Flow (perm)	1666	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	89	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	3.3

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	15	28	862	15	1	34	817	12	8	1	13	23	3	56
Future Vol, veh/h	15	28	862	15	1	34	817	12	8	1	13	23	3	56
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	30	937	16	1	37	888	13	9	1	14	25	3	61

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	901	911	0	0	953	963	0	0	1574	2034	492	1547	2036	466
Stage 1	-	-	-	-	-	-	-	-	1047	1047	-	981	981	-
Stage 2	-	-	-	-	-	-	-	-	527	987	-	566	1055	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	384	743	-	-	356	711	-	-	74	56	522	78	56	543
Stage 1	-	-	-	-	-	-	-	-	244	303	-	268	326	-
Stage 2	-	-	-	-	-	-	-	-	502	324	-	476	301	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	527	527	-	-	684	684	-	-	55	47	515	66	47	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	55	47	-	66	47	-
Stage 1	-	-	-	-	-	-	-	-	220	273	-	242	305	-
Stage 2	-	-	-	-	-	-	-	-	414	303	-	418	272	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.4	44.3	53.2
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	115	527	-	-	684	-	-	159
HCM Lane V/C Ratio	0.208	0.089	-	-	0.056	-	-	0.561
HCM Control Delay (s)	44.3	12.5	-	-	10.6	-	-	53.2
HCM Lane LOS	E	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.7	0.3	-	-	0.2	-	-	2.9

4: Courtesy Road (SH 42) & S Boulder Road
2026 Background SAT.syn

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	2	382	467	102	252	526	135	2	158	363	199	5
Future Volume (vph)	2	382	467	102	252	526	135	2	158	363	199	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0	225		270		0		0	
Storage Lanes		2		0	2		1		2		0	
Taper Length (ft)		80			135				70			
Lane Util. Factor	0.95	0.97	0.95	0.95	0.97	0.95	1.00	0.95	0.97	0.95	0.95	0.95
Ped Bike Factor			1.00				0.98			0.99		
Frt			0.973				0.850			0.947		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3433	0	3433	3539	1583	0	3433	3332	0	0
Flt Permitted		0.437			0.950				0.571			
Satd. Flow (perm)	0	1579	3433	0	3433	3539	1549	0	2063	3332	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			27				218			105		
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	417	619	0	274	572	147	0	174	611	0	0
Turn Type	custom	Prot	NA		Prot	NA	Perm	custom	Prot	NA		custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5						6	3				7
Detector Phase	5	5	2		1	6	6	3	3	8		7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	10.0	10.0	5.0	5.0	6.0		5.0
Minimum Split (s)	10.0	10.0	37.0		10.0	37.0	37.0	10.0	10.0	40.0		10.0
Total Split (s)	18.0	18.0	38.0		14.0	34.0	34.0	12.0	12.0	36.0		12.0
Total Split (%)	18.0%	18.0%	38.0%		14.0%	34.0%	34.0%	12.0%	12.0%	36.0%		12.0%
Yellow Time (s)	3.0	3.0	4.0		3.0	4.0	4.0	3.0	3.0	4.0		3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Lost Time (s)		5.0	6.0		5.0	6.0	6.0		5.0	6.0		
Lead/Lag	Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead	Lead		Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max		None	Max	Max	None	None	Max		None
Act Effct Green (s)		13.0	32.0		9.0	28.0	28.0		7.0	30.0		
Actuated g/C Ratio		0.13	0.32		0.09	0.28	0.28		0.07	0.30		
v/c Ratio		2.03	0.55		0.89	0.58	0.25		1.21	0.57		
Control Delay		505.8	25.2		75.6	33.7	1.8		183.0	26.6		
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Delay		505.8	25.2		75.6	33.7	1.8		183.0	26.6		
LOS		F	C		E	C	A		F	C		
Approach Delay			218.6			40.5				61.3		
Approach LOS			F			D				E		
Queue Length 50th (ft)		~219	113		90	164	0		~70	142		

Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	110	392	260
Future Volume (vph)	110	392	260
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	155		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.571		
Satd. Flow (perm)	2063	3539	1557
Right Turn on Red			Yes
Satd. Flow (RTOR)			283
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	125	426	283
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	12.0	36.0	36.0
Total Split (%)	12.0%	36.0%	36.0%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	7.0	30.0	30.0
Actuated g/C Ratio	0.07	0.30	0.30
v/c Ratio	0.87	0.40	0.43
Control Delay	94.1	29.2	5.4
Queue Delay	0.0	0.0	0.0
Total Delay	94.1	29.2	5.4
LOS	F	C	A
Approach Delay		30.9	
Approach LOS		C	
Queue Length 50th (ft)	41	113	0

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#311	149		#163	221	10		#138	199		
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150			225		270					
Base Capacity (vph)		205	1116		308	990	590		144	1073		
Starvation Cap Reductn		0	0		0	0	0		0	0		
Spillback Cap Reductn		0	0		0	0	0		0	0		
Storage Cap Reductn		0	0		0	0	0		0	0		
Reduced v/c Ratio		2.03	0.55		0.89	0.58	0.25		1.21	0.57		

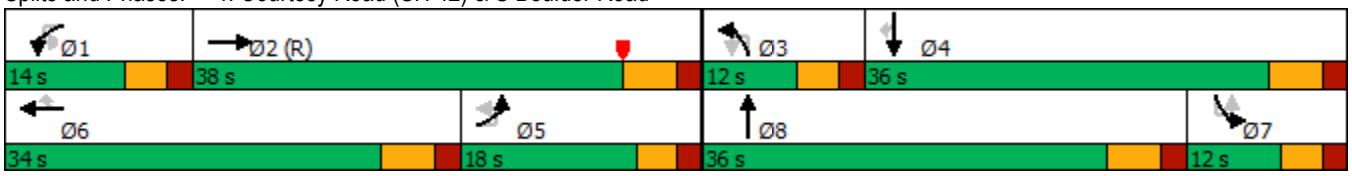
Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.03
Intersection Signal Delay: 93.4 Intersection LOS: F
Intersection Capacity Utilization 87.6% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#96	157	58
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1061	665
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.87	0.40	0.43

Intersection Summary

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	8	1	1	0	715	734	10
Future Volume (vph)	8	1	1	0	715	734	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		140			0
Storage Lanes	1	0		1			0
Taper Length (ft)	25			100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor							
Frt	0.986					0.998	
Flt Protected	0.957			0.950			
Satd. Flow (prot)	1758	0	0	1770	1863	3532	0
Flt Permitted	0.957			0.950			
Satd. Flow (perm)	1758	0	0	1770	1863	3532	0
Link Speed (mph)	20				45	45	
Link Distance (ft)	418				420	418	
Travel Time (s)	14.3				6.4	6.3	
Confl. Peds. (#/hr)				5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	10	0	0	1	777	809	0
Sign Control	Stop				Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 47.6%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	8	1	1	0	715	734	10
Future Vol, veh/h	8	1	1	0	715	734	10
Conflicting Peds, #/hr	0	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	140	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	9	1	1	0	777	798	11

Major/Minor	Minor2		Major1			Major2	
Conflicting Flow All	1586	410	809	814	0	-	0
Stage 1	809	-	-	-	-	-	-
Stage 2	777	-	-	-	-	-	-
Critical Hdwy	6.63	6.93	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	3.119	2.219	-	-	-
Pot Cap-1 Maneuver	108	592	338	811	-	-	-
Stage 1	399	-	-	-	-	-	-
Stage 2	452	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	107	589	337	337	-	-	-
Mov Cap-2 Maneuver	107	-	-	-	-	-	-
Stage 1	396	-	-	-	-	-	-
Stage 2	450	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	38.2	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	337	-	118	-	-
HCM Lane V/C Ratio	0.003	-	0.083	-	-
HCM Control Delay (s)	15.7	-	38.2	-	-
HCM Lane LOS	C	-	E	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	7	21	2	1	6	21	663	43	11	685	44
Future Volume (vph)	14	7	21	2	1	6	21	663	43	11	685	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	225		0	500		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	0			0			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932				0.850		0.991				0.850
Flt Protected		0.984			0.968		0.950			0.950		
Satd. Flow (prot)	0	1708	0	0	1803	1583	1770	1846	0	1770	1863	1583
Flt Permitted		0.984			0.968		0.950			0.950		
Satd. Flow (perm)	0	1708	0	0	1803	1583	1770	1846	0	1770	1863	1583
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	3	7	23	768	0	12	745	48
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	7	21	2	1	6	21	663	43	11	685	44
Future Vol, veh/h	14	7	21	2	1	6	21	663	43	11	685	44
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	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	8	23	2	1	7	23	721	47	12	745	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1564	1583	745	1600	1608	745	793	0	0	768	0	0
Stage 1	769	769	-	791	791	-	-	-	-	-	-	-
Stage 2	795	814	-	809	817	-	-	-	-	-	-	-
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	91	109	414	85	105	414	828	-	-	846	-	-
Stage 1	394	411	-	383	401	-	-	-	-	-	-	-
Stage 2	381	391	-	374	390	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	86	104	414	73	101	414	828	-	-	846	-	-
Mov Cap-2 Maneuver	86	104	-	73	101	-	-	-	-	-	-	-
Stage 1	383	405	-	372	390	-	-	-	-	-	-	-
Stage 2	364	380	-	342	385	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.2	26.5	0.3	0.1
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	828	-	-	150	80	414	846	-	-
HCM Lane V/C Ratio	0.028	-	-	0.304	0.041	0.016	0.014	-	-
HCM Control Delay (s)	9.5	-	-	39.2	51.9	13.8	9.3	-	-
HCM Lane LOS	A	-	-	E	F	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	0.1	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	31	24	15	57	1	23	0	10	1	0	1
Future Volume (vph)	0	31	24	15	57	1	23	0	10	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.998			0.959			0.932	
Flt Protected					0.990			0.966			0.976	
Satd. Flow (prot)	0	1753	0	0	1840	0	0	1726	0	0	1694	0
Flt Permitted					0.990			0.966			0.976	
Satd. Flow (perm)	0	1753	0	0	1840	0	0	1726	0	0	1694	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	0	79	0	0	36	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	24	15	57	1	23	0	10	1	0	1
Future Vol, veh/h	0	31	24	15	57	1	23	0	10	1	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	26	16	62	1	25	0	11	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	65	0	0	152	152	57	158	165	73
Stage 1	-	-	-	-	-	-	52	52	-	100	100	-
Stage 2	-	-	-	-	-	-	100	100	-	58	65	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1537	-	-	815	740	1009	808	728	989
Stage 1	-	-	-	-	-	-	961	852	-	906	812	-
Stage 2	-	-	-	-	-	-	906	812	-	954	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1530	-	-	800	724	999	785	713	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	800	724	-	785	713	-
Stage 1	-	-	-	-	-	-	956	848	-	901	799	-
Stage 2	-	-	-	-	-	-	891	799	-	939	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	9.4	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	851	1526	-	-	1530	-	-	872
HCM Lane V/C Ratio	0.042	-	-	-	0.011	-	-	0.002
HCM Control Delay (s)	9.4	0	-	-	7.4	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2026 Background SAT.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	57	3	1	77	3	8	0	0	0	0	4
Future Volume (vph)	6	57	3	1	77	3	8	0	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.995						0.865	
Flt Protected		0.995			0.999			0.950				
Satd. Flow (prot)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.999			0.950				
Satd. Flow (perm)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	88	0	0	9	0	0	4	0
Sign Control		Free			Free			Stop			Stop	

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	57	3	1	77	3	8	0	0	0	0	4
Future Vol, veh/h	6	57	3	1	77	3	8	0	0	0	0	4
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	62	3	1	84	3	9	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	75	0	0	183	182	79	176	182	96
Stage 1	-	-	-	-	-	-	88	88	-	93	93	-
Stage 2	-	-	-	-	-	-	95	94	-	83	89	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1524	-	-	778	712	981	786	712	960
Stage 1	-	-	-	-	-	-	920	822	-	914	818	-
Stage 2	-	-	-	-	-	-	912	817	-	925	821	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1496	-	-	1509	-	-	760	697	967	775	697	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	760	697	-	775	697	-
Stage 1	-	-	-	-	-	-	907	810	-	905	813	-
Stage 2	-	-	-	-	-	-	903	812	-	916	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.8	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	760	1496	-	-	1509	-	-	951
HCM Lane V/C Ratio	0.011	0.004	-	-	0.001	-	-	0.005
HCM Control Delay (s)	9.8	7.4	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	36	130	46	18	138
Future Volume (vph)	57	36	130	46	18	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.948		0.965			
Flt Protected	0.970					0.994
Satd. Flow (prot)	1713	0	1798	0	0	1852
Flt Permitted	0.970					0.994
Satd. Flow (perm)	1713	0	1798	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	405		350			1210
Travel Time (s)	9.2		8.0			27.5
Confl. Peds. (#/hr)	1	2		17	17	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	191	0	0	170
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	36	130	46	18	138
Future Vol, veh/h	57	36	130	46	18	138
Conflicting Peds, #/hr	1	2	0	17	17	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	39	141	50	20	150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	374	185	0	0	208	0
Stage 1	183	-	-	-	-	-
Stage 2	191	-	-	-	-	-
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	627	857	-	-	1363	-
Stage 1	848	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	606	842	-	-	1341	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	680	1341	-
HCM Lane V/C Ratio	-	-	0.149	0.015	-
HCM Control Delay (s)	-	-	11.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	0	9	0	0
Future Volume (vph)	4	0	0	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	38	11	6	652	691	6
Future Volume (vph)	38	11	6	652	691	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.969				0.999	
Flt Protected	0.963					
Satd. Flow (prot)	1738	0	0	1863	3536	0
Flt Permitted	0.963					
Satd. Flow (perm)	1738	0	0	1863	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	244			369	420	
Travel Time (s)	5.5			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	716	758	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	11	6	652	691	6
Future Vol, veh/h	38	11	6	652	691	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	12	7	709	751	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1478	379	758	0	-	0
Stage 1	755	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	127	620	851	-	-	-
Stage 1	426	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	125	620	851	-	-	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	420	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.9	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	851	-	152	-	-
HCM Lane V/C Ratio	0.008	-	0.35	-	-
HCM Control Delay (s)	9.3	0	40.9	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0	-	1.4	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1171	111	75	1535	67	95
Future Volume (vph)	1171	111	75	1535	67	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97			0.99	0.95
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.171		0.950	
Satd. Flow (perm)	3539	1531	319	3539	1759	1505
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		97				103
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1273	121	82	1668	73	103
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	88.1	88.1	98.4	98.4	13.6	12.6
Actuated g/C Ratio	0.73	0.73	0.82	0.82	0.11	0.10
v/c Ratio	0.49	0.11	0.22	0.57	0.37	0.41
Control Delay	8.5	2.1	5.1	7.3	53.1	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	2.1	5.1	7.3	53.1	14.1
LOS	A	A	A	A	D	B
Approach Delay	7.9			7.2	30.3	
Approach LOS	A			A	C	
Queue Length 50th (ft)	230	5	20	239	51	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	288	25	m24	m265	98	52
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2598	1149	382	2901	249	289
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.11	0.21	0.57	0.29	0.36

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 23 (19%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2045 Background AM.syn

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1133	0	2	0	1668	5	0	0	0	0	0
Future Volume (vph)	0	1133	0	2	0	1668	5	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt												
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1863	0	1770	3539	0	0	0	1863	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1863	0	1770	3539	0	0	0	1863	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1232	0	0	2	1818	0	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 57.8%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	12
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1133	0	2	0	1668	5	0	0	0	0	0	11
Future Vol, veh/h	0	1133	0	2	0	1668	5	0	0	0	0	0	11
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1232	0	2	0	1813	5	0	0	0	0	0	12

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1232	1242	0	0	-	-	631	-	-	924
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	235	556	-	-	0	0	424	0	0	271
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	235	235	-	-	-	-	418	-	-	267
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	19.1
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	235	-	-	267
HCM Lane V/C Ratio	-	-	-	0.009	-	-	0.045
HCM Control Delay (s)	0	-	-	20.5	-	-	19.1
HCM Lane LOS	A	-	-	C	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0	-	-	0.1

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	1119	0	1	8	1638	8	0	0	2	8
Future Volume (vph)	6	21	1119	0	1	8	1638	8	0	0	2	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt							0.999			0.865		
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3539	0	0	1770	3536	0	0	1611	0	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3539	0	0	1770	3536	0	0	1611	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	1216	0	0	10	1789	0	0	2	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	28
Future Volume (vph)	0	28
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.896	
Flt Protected	0.989	
Satd. Flow (prot)	1651	0
Flt Permitted	0.989	
Satd. Flow (perm)	1651	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	39	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	2.8

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	21	1119	0	1	8	1638	8	0	0	2	8	0	28
Future Vol, veh/h	6	21	1119	0	1	8	1638	8	0	0	2	8	0	28
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	23	1216	0	1	9	1780	9	0	0	2	9	0	30

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1789	1799	0	0	1216	1226	0	0	2201	3105	623	2488	3101	910
Stage 1	-	-	-	-	-	-	-	-	1286	1286	-	1815	1815	-
Stage 2	-	-	-	-	-	-	-	-	915	1819	-	673	1286	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	102	339	-	-	241	564	-	-	25	11	429	15	11	277
Stage 1	-	-	-	-	-	-	-	-	174	233	-	81	128	-
Stage 2	-	-	-	-	-	-	-	-	294	127	-	411	233	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	211	211	-	-	487	487	-	-	19	9	423	13	9	273
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	19	9	-	13	9	-
Stage 1	-	-	-	-	-	-	-	-	149	199	-	69	124	-
Stage 2	-	-	-	-	-	-	-	-	255	123	-	351	199	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	13.6	194.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	423	211	-	-	487	-	-	50
HCM Lane V/C Ratio	0.005	0.139	-	-	0.02	-	-	0.783
HCM Control Delay (s)	13.6	24.8	-	-	12.5	-	-	194.7
HCM Lane LOS	B	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0	0.5	-	-	0.1	-	-	3.2

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background AM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	369	535	190	332	864	195	1	226	603	258	7	164
Future Volume (vph)	369	535	190	332	864	195	1	226	603	258	7	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		100	225		270		0		0		185
Storage Lanes	2		1	2		1		2		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95	0.97
Ped Bike Factor			0.98			0.98				0.98		
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0	3433
Flt Permitted	0.950			0.950				0.333				0.500
Satd. Flow (perm)	3433	3539	1555	3433	3539	1546	0	1203	3539	1556	0	1807
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			173			182				280		
Link Speed (mph)		35			35				45			
Link Distance (ft)		465			1815				418			
Travel Time (s)		9.1			35.4				6.3			
Confl. Peds. (#/hr)			5			10				5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	401	582	207	361	939	212	0	247	655	280	0	186
Turn Type	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom	Prot
Protected Phases	5	2		1	6			3	8			7
Permitted Phases			2			6	3			8	7	
Detector Phase	5	2	2	1	6	6	3	3	8	8	7	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0	5.0
Minimum Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0	10.0
Total Split (s)	20.0	41.0	41.0	20.0	41.0	41.0	16.0	16.0	47.0	47.0	12.0	12.0
Total Split (%)	16.7%	34.2%	34.2%	16.7%	34.2%	34.2%	13.3%	13.3%	39.2%	39.2%	10.0%	10.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0		-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None	None
Act Effct Green (s)	16.0	37.3	37.3	15.7	37.0	37.0		12.0	43.0	43.0		8.0
Actuated g/C Ratio	0.13	0.31	0.31	0.13	0.31	0.31		0.10	0.36	0.36		0.07
v/c Ratio	0.88	0.53	0.34	0.80	0.86	0.35		2.06	0.52	0.38		1.55
Control Delay	63.8	29.4	11.3	65.1	48.4	8.5		529.6	35.5	9.4		321.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay	63.8	29.4	11.3	65.1	48.4	8.5		529.6	35.5	9.4		321.4
LOS	E	C	B	E	D	A		F	D	A		F
Approach Delay		37.9			46.8				132.6			
Approach LOS		D			D				F			
Queue Length 50th (ft)	158	196	58	141	360	16		~157	241	6		~104

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	738	551
Future Volume (vph)	738	551
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		270
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.98
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1555
Right Turn on Red		Yes
Satd. Flow (RTOR)		294
Link Speed (mph)	45	
Link Distance (ft)	1337	
Travel Time (s)	20.3	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	802	599
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	36.0	36.0
Total Split (s)	43.0	43.0
Total Split (%)	35.8%	35.8%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0
Total Lost Time (s)	4.0	4.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	39.0	39.0
Actuated g/C Ratio	0.32	0.32
v/c Ratio	0.70	0.85
Control Delay	39.2	31.8
Queue Delay	0.0	0.0
Total Delay	39.2	31.8
LOS	D	C
Approach Delay	69.5	
Approach LOS	E	
Queue Length 50th (ft)	284	239

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Queue Length 95th (ft)	#245	256	115	#207	#447	75		#236	309	88		#180
Internal Link Dist (ft)		385			1735				338			
Turn Bay Length (ft)	150		100	225		270						185
Base Capacity (vph)	457	1099	602	457	1091	602		120	1268	737		120
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	0.88	0.53	0.34	0.79	0.86	0.35		2.06	0.52	0.38		1.55

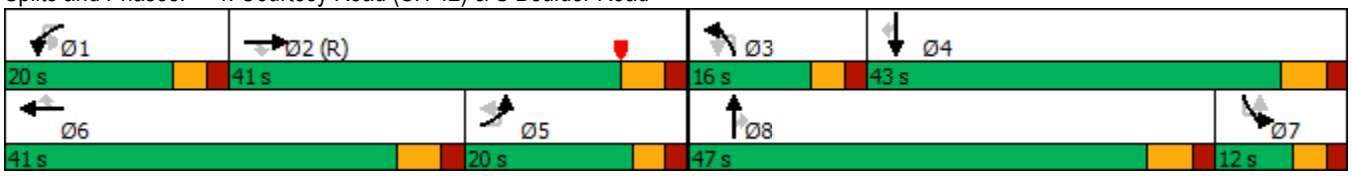
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.06
Intersection Signal Delay: 70.0 Intersection LOS: E
Intersection Capacity Utilization 90.8% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBT	SBR
Queue Length 95th (ft)	356	#458
Internal Link Dist (ft)	1257	
Turn Bay Length (ft)		270
Base Capacity (vph)	1150	703
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.70	0.85

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	1060	1252	1
Future Volume (vph)	0	0	0	1060	1252	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	3539	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3539	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1152	1362	0
Sign Control	Stop			Free	Free	

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

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1060	1252	1
Future Vol, veh/h	0	0	0	1060	1252	1
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	1152	1361	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	686	-	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	390	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	388	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background AM.syn

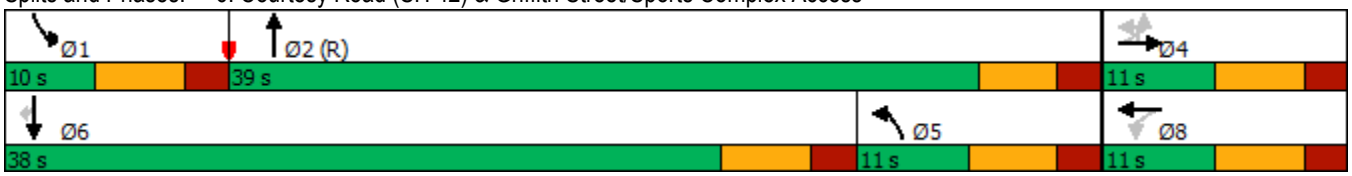
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	54	1	1	1	37	1029	4	5	1151	83
Future Volume (vph)	29	0	54	1	1	1	37	1029	4	5	1151	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	50		0	225		0	500		273
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												0.98
Frt		0.850			0.925			0.999				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1723	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.800			0.800			0.950			0.950		
Satd. Flow (perm)	1490	1583	0	1490	1723	0	1770	3536	0	1770	3539	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		273			1			1				164
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	59	0	1	2	0	40	1122	0	5	1251	90
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0	25.0
Total Split (s)	11.0	11.0		11.0	11.0		11.0	39.0		10.0	38.0	38.0
Total Split (%)	18.3%	18.3%		18.3%	18.3%		18.3%	65.0%		16.7%	63.3%	63.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	Max	Max
Act Effct Green (s)	7.0	7.0		7.0	7.0		7.0	49.0		6.6	46.6	46.6
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.12	0.82		0.11	0.78	0.78
v/c Ratio	0.18	0.14		0.01	0.01		0.19	0.39		0.03	0.46	0.07
Control Delay	26.7	0.7		24.0	21.0		26.5	3.9		28.8	4.4	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	26.7	0.7		24.0	21.0		26.5	3.9		28.8	4.4	0.6
LOS	C	A		C	C		C	A		C	A	A
Approach Delay		9.8			22.0			4.7			4.2	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)	11	0		0	0		13	53		3	159	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	26	0		4	6		38	160		m4	274	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	173	425		173	201		206	2888		195	2748	1237
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	0.18	0.14		0.01	0.01		0.19	0.39		0.03	0.46	0.07

Intersection Summary	
Area Type: Other	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 43 (72%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 4.6	Intersection LOS: A
Intersection Capacity Utilization 46.8%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



7: Cannon Street & Griffith Street
2045 Background AM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	61	12	14	90	2	19	0	19	0	0	1
Future Volume (vph)	0	61	12	14	90	2	19	0	19	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.978			0.998			0.932			0.865	
Flt Protected					0.994			0.976				
Satd. Flow (prot)	0	1822	0	0	1848	0	0	1694	0	0	1611	0
Flt Permitted					0.994			0.976				
Satd. Flow (perm)	0	1822	0	0	1848	0	0	1694	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	115	0	0	42	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 28.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	61	12	14	90	2	19	0	19	0	0	1
Future Vol, veh/h	0	61	12	14	90	2	19	0	19	0	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	13	15	98	2	21	0	21	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	84	0	0	213	213	83	222	218	109
Stage 1	-	-	-	-	-	-	78	78	-	134	134	-
Stage 2	-	-	-	-	-	-	135	135	-	88	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1513	-	-	744	684	976	734	680	945
Stage 1	-	-	-	-	-	-	931	830	-	869	785	-
Stage 2	-	-	-	-	-	-	868	785	-	920	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1506	-	-	730	670	967	705	666	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	730	670	-	705	666	-
Stage 1	-	-	-	-	-	-	926	826	-	865	772	-
Stage 2	-	-	-	-	-	-	853	772	-	896	821	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1	9.6	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	832	1479	-	-	1506	-	-	936
HCM Lane V/C Ratio	0.05	-	-	-	0.01	-	-	0.001
HCM Control Delay (s)	9.6	0	-	-	7.4	0	-	8.9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2045 Background AM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	74	2	3	127	1	6	0	3	1	0	5
Future Volume (vph)	2	74	2	3	127	1	6	0	3	1	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.999			0.959			0.887	
Flt Protected		0.999			0.999			0.966			0.992	
Satd. Flow (prot)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Flt Permitted		0.999			0.999			0.966			0.992	
Satd. Flow (perm)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	142	0	0	10	0	0	6	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 20.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	74	2	3	127	1	6	0	3	1	0	5
Future Vol, veh/h	2	74	2	3	127	1	6	0	3	1	0	5
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	80	2	3	138	1	7	0	3	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	144	0	0	92	0	0	247	245	96	242	246	149
Stage 1	-	-	-	-	-	-	95	95	-	150	150	-
Stage 2	-	-	-	-	-	-	152	150	-	92	96	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1438	-	-	1503	-	-	707	657	960	712	656	898
Stage 1	-	-	-	-	-	-	912	816	-	853	773	-
Stage 2	-	-	-	-	-	-	850	773	-	915	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1431	-	-	1489	-	-	691	645	946	701	644	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	645	-	701	644	-
Stage 1	-	-	-	-	-	-	902	807	-	848	768	-
Stage 2	-	-	-	-	-	-	839	768	-	907	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	9.8	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1431	-	-	1489	-	-	851
HCM Lane V/C Ratio	0.013	0.002	-	-	0.002	-	-	0.008
HCM Control Delay (s)	9.8	7.5	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	42	59	1	151	60	20	113
Future Volume (vph)	1	42	59	1	151	60	20	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								
Frt		0.922			0.962			
Flt Protected		0.979						0.992
Satd. Flow (prot)	0	1681	0	0	1792	0	0	1848
Flt Permitted		0.979						0.992
Satd. Flow (perm)	0	1681	0	0	1792	0	0	1848
Link Speed (mph)		30			30			30
Link Distance (ft)		405			350			1210
Travel Time (s)		9.2			8.0			27.5
Confl. Peds. (#/hr)	70	5	132	5		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	111	0	0	230	0	0	145
Sign Control		Stop			Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.5

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	42	59	1	151	60	20	113
Future Vol, veh/h	1	42	59	1	151	60	20	113
Conflicting Peds, #/hr	70	5	132	5	0	70	70	0
Sign Control	Stop	Stop	Stop	Free	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	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	64	1	164	65	22	123

Major/Minor	Minor1			Major1			Major2	
Conflicting Flow All	0	439	399	-	0	0	299	0
Stage 1	0	267	-	-	-	-	-	-
Stage 2	0	172	-	-	-	-	-	-
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	0	575	651	-	-	-	1262	-
Stage 1	0	778	-	-	-	-	-	-
Stage 2	0	858	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	523	531	-	-	-	1178	-
Mov Cap-2 Maneuver	0	523	-	-	-	-	-	-
Stage 1	0	711	-	-	-	-	-	-
Stage 2	0	854	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6		1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	1178	-
HCM Lane V/C Ratio	-	-	0.208	0.018	-
HCM Control Delay (s)	-	-	13.6	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	3	0	0
Future Volume (vph)	6	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	3	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	19	0	1060	1250	2
Future Volume (vph)	0	19	0	1060	1250	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3539	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	213			369	420	
Travel Time (s)	4.8			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	21	0	1152	1361	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	19	0	1060	1250	2
Future Vol, veh/h	0	19	0	1060	1250	2
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	0	1152	1359	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	681	-	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	393	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	393	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	393	-	-
HCM Lane V/C Ratio	-	0.053	-	-
HCM Control Delay (s)	-	14.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1611	102	69	1281	89	162
Future Volume (vph)	1611	102	69	1281	89	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97			0.99	0.94
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.085		0.950	
Satd. Flow (perm)	3539	1531	158	3539	1759	1484
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		64				129
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1751	111	75	1392	97	176
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	89.0	89.0	99.2	99.2	12.8	11.8
Actuated g/C Ratio	0.74	0.74	0.83	0.83	0.11	0.10
v/c Ratio	0.67	0.10	0.31	0.48	0.52	0.67
Control Delay	10.8	3.0	9.5	7.9	59.8	29.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	3.0	9.5	7.9	59.8	29.0
LOS	B	A	A	A	E	C
Approach Delay	10.3			8.0	39.9	
Approach LOS	B			A	D	
Queue Length 50th (ft)	346	9	23	227	72	34

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	502	30	m34	m252	124	107
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2623	1151	264	2924	249	309
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.10	0.28	0.48	0.39	0.57

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1788	1	4	2	1365	5	0	0	3	0	0
Future Volume (vph)	0	1788	1	4	2	1365	5	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1943	1	0	6	1489	0	0	0	3	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	5
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1788	1	4	2	1365	5	0	0	3	0	0	5
Future Vol, veh/h	0	1788	1	4	2	1365	5	0	0	3	0	0	5
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1943	1	4	2	1484	5	0	0	3	0	0	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1943	1954	0	0	-	-	987	-	-	760
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	81	295	-	-	0	0	246	0	0	349
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	106	106	-	-	-	-	242	-	-	344
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	20.1	15.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	242	-	-	106	-	-	344
HCM Lane V/C Ratio	0.013	-	-	0.062	-	-	0.016
HCM Control Delay (s)	20.1	-	-	41.3	-	-	15.6
HCM Lane LOS	C	-	-	E	-	-	C
HCM 95th %tile Q(veh)	0	-	-	0.2	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1794	27	2	21	1385	12	2	0	24	21
Future Volume (vph)	23	48	1794	27	2	21	1385	12	2	0	24	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.998				0.999			0.875		
Flt Protected		0.950				0.950				0.996		
Satd. Flow (prot)	0	1770	3532	0	0	1770	3536	0	0	1623	0	0
Flt Permitted		0.950				0.950				0.996		
Satd. Flow (perm)	0	1770	3532	0	0	1770	3536	0	0	1623	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	1979	0	0	25	1518	0	0	28	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	45
Future Volume (vph)	0	45
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.908	
Flt Protected	0.984	
Satd. Flow (prot)	1664	0
Flt Permitted	0.984	
Satd. Flow (perm)	1664	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	72	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	36.6

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	23	48	1794	27	2	21	1385	12	2	0	24	21	0	45
Future Vol, veh/h	23	48	1794	27	2	21	1385	12	2	0	24	21	0	45
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	52	1950	29	2	23	1505	13	2	0	26	23	0	49

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1518	1528	0	0	1979	1989	0	0	2937	3707	1005	2706	3715	774
Stage 1	-	-	-	-	-	-	-	-	2129	2129	-	1572	1572	-
Stage 2	-	-	-	-	-	-	-	-	808	1578	-	1134	2143	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	153	432	-	-	77	286	-	-	7	4	240	~ 10	4	341
Stage 1	-	-	-	-	-	-	-	-	51	89	-	115	169	-
Stage 2	-	-	-	-	-	-	-	-	341	168	-	216	87	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	249	249	-	-	223	223	-	-	4	2	237	~ 6	2	336
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	4	2	-	~ 6	2	-
Stage 1	-	-	-	-	-	-	-	-	35	61	-	79	149	-
Stage 2	-	-	-	-	-	-	-	-	257	148	-	132	60	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.4	186.8	$ 1776.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	43	249	-	-	223	-	-	18
HCM Lane V/C Ratio	0.657	0.31	-	-	0.112	-	-	3.986
HCM Control Delay (s)	186.8	25.8	-	-	23.2	-		$ 1776.7
HCM Lane LOS	F	D	-	-	C	-	-	F
HCM 95th %tile Q(veh)	2.5	1.3	-	-	0.4	-	-	9.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background PM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	727	948	214	453	816	258	1	167	910	328	12	177
Future Volume (vph)	727	948	214	453	816	258	1	167	910	328	12	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		100	225		270		0		0		185
Storage Lanes	2		1	2		1		2		1		2
Taper Length (ft)	25			25				25				25
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95	0.97
Ped Bike Factor			0.98			0.98				0.98		
Frt			0.850			0.850				0.850		
Flt Protected	0.950			0.950				0.950				0.950
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0	3433
Flt Permitted	0.950			0.950				0.286				0.290
Satd. Flow (perm)	3433	3539	1555	3433	3539	1546	0	1034	3539	1556	0	1048
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			173			196				287		
Link Speed (mph)		35			35				45			
Link Distance (ft)		465			1815				418			
Travel Time (s)		9.1			35.4				6.3			
Confl. Peds. (#/hr)			5			10				5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	790	1030	233	492	887	280	0	183	989	357	0	205
Turn Type	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom	Prot
Protected Phases	5	2		1	6			3	8			7
Permitted Phases			2			6	3			8	7	
Detector Phase	5	2	2	1	6	6	3	3	8	8	7	7
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0	5.0
Minimum Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0	10.0
Total Split (s)	24.0	43.0	43.0	18.0	37.0	37.0	18.0	18.0	41.0	41.0	18.0	18.0
Total Split (%)	20.0%	35.8%	35.8%	15.0%	30.8%	30.8%	15.0%	15.0%	34.2%	34.2%	15.0%	15.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0		-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None	None
Act Effct Green (s)	20.0	39.0	39.0	14.0	33.0	33.0		14.0	37.0	37.0		14.0
Actuated g/C Ratio	0.17	0.32	0.32	0.12	0.28	0.28		0.12	0.31	0.31		0.12
v/c Ratio	1.38	0.90	0.37	1.23	0.91	0.49		1.52	0.91	0.53		1.68
Control Delay	215.3	41.7	9.1	167.8	56.6	14.5		305.6	48.8	12.2		372.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay	215.3	41.7	9.1	167.8	56.6	14.5		305.6	48.8	12.2		372.3
LOS	F	D	A	F	E	B		F	D	B		F
Approach Delay		104.8			82.5				71.0			
Approach LOS		F			F				E			
Queue Length 50th (ft)	~422	400	60	~242	350	50		~102	395	66		~119

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	685	403
Future Volume (vph)	685	403
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		270
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.98
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1555
Right Turn on Red		Yes
Satd. Flow (RTOR)		381
Link Speed (mph)	45	
Link Distance (ft)	1337	
Travel Time (s)	20.3	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	745	438
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	36.0	36.0
Total Split (s)	41.0	41.0
Total Split (%)	34.2%	34.2%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0
Total Lost Time (s)	4.0	4.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	37.0	37.0
Actuated g/C Ratio	0.31	0.31
v/c Ratio	0.68	0.59
Control Delay	40.2	9.2
Queue Delay	0.0	0.0
Total Delay	40.2	9.2
LOS	D	A
Approach Delay	79.4	
Approach LOS	E	
Queue Length 50th (ft)	265	32

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Queue Length 95th (ft)	#548	#521	102	#351	#469	133		#177	#515	126		#199
Internal Link Dist (ft)		385			1735				338			
Turn Bay Length (ft)	150		100	225		270						185
Base Capacity (vph)	572	1150	622	400	973	567		120	1091	678		122
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	1.38	0.90	0.37	1.23	0.91	0.49		1.52	0.91	0.53		1.68

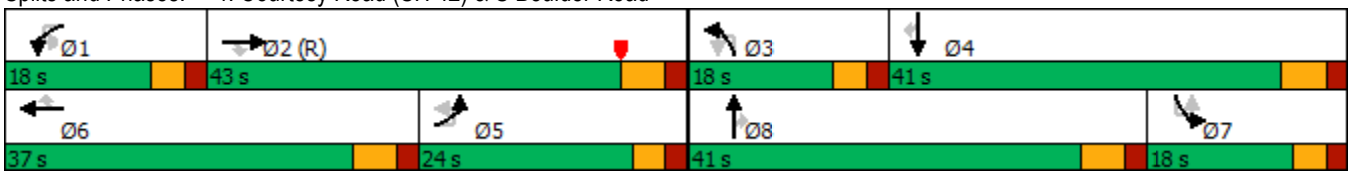
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.68
Intersection Signal Delay: 86.1 Intersection LOS: F
Intersection Capacity Utilization 93.6% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBT	SBR
Queue Length 95th (ft)	335	129
Internal Link Dist (ft)	1257	
Turn Bay Length (ft)		270
Base Capacity (vph)	1091	742
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.68	0.59

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	6	0	1426	1334	9
Future Volume (vph)	0	6	0	1426	1334	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	7	0	1550	1460	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 47.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	6	0	1426	1334	9
Future Vol, veh/h	0	6	0	1426	1334	9
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	1550	1450	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	735	-	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	362	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	360	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	360	-	-
HCM Lane V/C Ratio	-	0.018	-	-
HCM Control Delay (s)	-	15.2	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	17	0	39	1	1	1	19	1383	2	1	1251
Future Volume (vph)	2	17	0	39	1	1	1	19	1383	2	1	1251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50		0	50		0	225		0	500	
Storage Lanes		1		0	1		0	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850			0.925						
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	1583	0	1770	1723	0	1770	3539	0	1770	3539
Flt Permitted		0.800			0.800			0.950			0.950	
Satd. Flow (perm)	0	1490	1583	0	1490	1723	0	1770	3539	0	1770	3539
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			273			1						
Link Speed (mph)			30			20			45			45
Link Distance (ft)			439			281			380			369
Travel Time (s)			10.0			9.6			5.8			5.6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	42	0	1	2	0	21	1505	0	1	1360
Turn Type	Perm	Perm	NA		Perm	NA		Prot	NA		Prot	NA
Protected Phases			4			8		5	2		1	6
Permitted Phases	4	4			8							
Detector Phase	4	4	4		8	8		5	2		1	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0
Minimum Split (s)	25.0	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0
Total Split (s)	11.0	11.0	11.0		11.0	11.0		11.0	39.0		10.0	38.0
Total Split (%)	18.3%	18.3%	18.3%		18.3%	18.3%		18.3%	65.0%		16.7%	63.3%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0
Total Lost Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lead/Lag								Lag	Lag		Lead	Lead
Lead-Lag Optimize?								Yes	Yes		Yes	Yes
Recall Mode	None	None	None		None	None		None	C-Max		None	Max
Act Effct Green (s)		7.0	7.0		7.0	7.0		7.0	49.0		6.6	48.8
Actuated g/C Ratio		0.12	0.12		0.12	0.12		0.12	0.82		0.11	0.81
v/c Ratio		0.12	0.10		0.01	0.01		0.10	0.52		0.01	0.47
Control Delay		25.3	0.5		24.0	21.0		25.1	4.9		30.0	5.1
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		25.3	0.5		24.0	21.0		25.1	4.9		30.0	5.1
LOS		C	A		C	C		C	A		C	A
Approach Delay			8.5			22.0			5.2			4.8
Approach LOS			A			C			A			A
Queue Length 50th (ft)		7	0		0	0		7	86		1	239

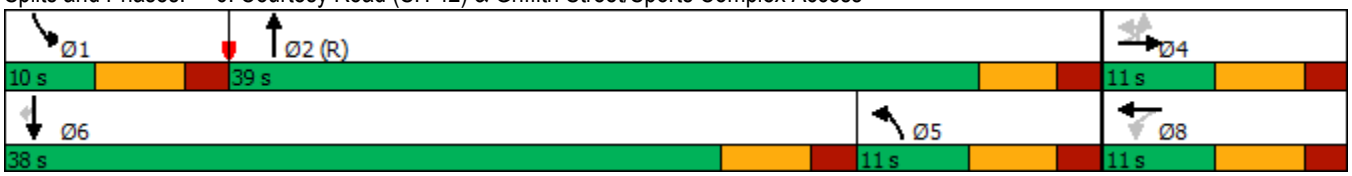
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	123
Future Volume (vph)	123
Ideal Flow (vphpl)	1900
Storage Length (ft)	273
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	0.98
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1546
Right Turn on Red	Yes
Satd. Flow (RTOR)	164
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	134
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	25.0
Total Split (s)	38.0
Total Split (%)	63.3%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	4.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	48.8
Actuated g/C Ratio	0.81
v/c Ratio	0.10
Control Delay	1.7
Queue Delay	0.0
Total Delay	1.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	14

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		19	0		4	6		24	254		m1	m276
Internal Link Dist (ft)			359			201			300			289
Turn Bay Length (ft)		50			50			225			500	
Base Capacity (vph)		173	425		173	201		206	2890		195	2878
Starvation Cap Reductn		0	0		0	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.12	0.10		0.01	0.01		0.10	0.52		0.01	0.47

Intersection Summary	
Area Type: Other	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 48 (80%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 5.1	Intersection LOS: A
Intersection Capacity Utilization 52.7%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



Lane Group	SBR
Queue Length 95th (ft)	m23
Internal Link Dist (ft)	
Turn Bay Length (ft)	273
Base Capacity (vph)	1288
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.10

Intersection Summary

7: Cannon Street & Griffith Street
2045 Background PM.syn

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	36	22	1	27	119	1	19	1	11	0	2
Future Volume (vph)	2	36	22	1	27	119	1	19	1	11	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150		150		150	150		150	150	
Storage Lanes	0		0		0		0	0		0	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.950				0.999			0.952			
Flt Protected		0.998				0.991			0.970			
Satd. Flow (prot)	0	1766	0	0	0	1844	0	0	1720	0	0	1863
Flt Permitted		0.998				0.991			0.970			
Satd. Flow (perm)	0	1766	0	0	0	1844	0	0	1720	0	0	1863
Link Speed (mph)		30				30			25			25
Link Distance (ft)		390				439			346			362
Travel Time (s)		8.9				10.0			9.4			9.9
Confl. Peds. (#/hr)	5		5		5		5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	0	160	0	0	34	0	0	2
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 30.6%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	36	22	1	27	119	1	19	1	11	0	2	0
Future Vol, veh/h	2	36	22	1	27	119	1	19	1	11	0	2	0
Conflicting Peds, #/hr	5	0	5	0	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	24	1	29	129	1	21	1	12	0	2	0

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	135	0	0	-	68	0	0	254	255	61	260	267	140
Stage 1	-	-	-	-	-	-	-	60	60	-	193	195	-
Stage 2	-	-	-	-	-	-	-	194	195	-	67	72	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1449	-	-	-	1533	-	-	699	649	1004	693	639	908
Stage 1	-	-	-	-	-	-	-	951	845	-	809	739	-
Stage 2	-	-	-	-	-	-	-	808	739	-	943	835	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1442	-	-	~ -29	~ -29	-	-	690	642	994	677	632	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	690	642	-	677	632	-
Stage 1	-	-	-	-	-	-	-	945	840	-	804	735	-
Stage 2	-	-	-	-	-	-	-	802	735	-	925	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3		9.9	10.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	772	1442	-	-	+	-	-	632
HCM Lane V/C Ratio	0.044	0.002	-	-	-	-	-	0.003
HCM Control Delay (s)	9.9	7.5	0	-	-	-	-	10.7
HCM Lane LOS	A	A	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

8: Griffith Street & Front Street
2045 Background PM.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	66	6	5	146	0	2	0	1	3	0	0
Future Volume (vph)	4	66	6	5	146	0	2	0	1	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0		0	
Storage Lanes	0		0	0		0	0		0		0	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989						0.955				0.932
Flt Protected		0.998			0.998			0.968				0.976
Satd. Flow (prot)	0	1839	0	0	1859	0	0	1722	0	0	0	1694
Flt Permitted		0.998			0.998			0.968				0.976
Satd. Flow (perm)	0	1839	0	0	1859	0	0	1722	0	0	0	1694
Link Speed (mph)		30			30			25				25
Link Distance (ft)		405			390			333				365
Travel Time (s)		9.2			8.9			9.1				10.0
Confl. Peds. (#/hr)	5		10	10		5	5		5		5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	164	0	0	3	0	0	0	6
Sign Control		Free			Free			Stop				Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 21.4%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	3
Future Volume (vph)	3
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	66	6	5	146	0	2	0	1	3	0	0	3
Future Vol, veh/h	4	66	6	5	146	0	2	0	1	3	0	0	3
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	72	7	5	159	0	2	0	1	3	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	164	0	0	89	0	0	270	268	91	0	263	271	169
Stage 1	-	-	-	-	-	-	94	94	-	0	174	174	-
Stage 2	-	-	-	-	-	-	176	174	-	0	89	97	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1414	-	-	1506	-	-	683	638	967	0	690	636	875
Stage 1	-	-	-	-	-	-	913	817	-	0	828	755	-
Stage 2	-	-	-	-	-	-	826	755	-	0	918	815	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1407	-	-	1492	-	-	667	624	953	0	679	622	867
Mov Cap-2 Maneuver	-	-	-	-	-	-	667	624	-	0	679	622	-
Stage 1	-	-	-	-	-	-	902	806	-	0	821	748	-
Stage 2	-	-	-	-	-	-	816	748	-	0	910	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	9.9	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	741	1407	-	-	1492	-	-	867
HCM Lane V/C Ratio	0.004	0.003	-	-	0.004	-	-	0.004
HCM Control Delay (s)	9.9	7.6	0	-	7.4	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	80	48	206	39	1	35	144
Future Volume (vph)	80	48	206	39	1	35	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							
Frt	0.949		0.979				
Flt Protected	0.970						0.990
Satd. Flow (prot)	1715	0	1824	0	0	0	1844
Flt Permitted	0.970						0.990
Satd. Flow (perm)	1715	0	1824	0	0	0	1844
Link Speed (mph)	30		30				30
Link Distance (ft)	405		350				1210
Travel Time (s)	9.2		8.0				27.5
Confl. Peds. (#/hr)	5	10		7	10	7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	139	0	266	0	0	0	196
Sign Control	Stop		Free				Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 42.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	80	48	206	39	1	35	144
Future Vol, veh/h	80	48	206	39	1	35	144
Conflicting Peds, #/hr	5	10	0	7	10	7	0
Sign Control	Stop	Stop	Free	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	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	87	52	224	42	1	38	157

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	490	262	0	0	-	273	0
Stage 1	252	-	-	-	-	-	-
Stage 2	238	-	-	-	-	-	-
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	537	777	-	-	-	1290	-
Stage 1	790	-	-	-	-	-	-
Stage 2	802	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	531	764	-	-	~ -37	~ -37	-
Mov Cap-2 Maneuver	531	-	-	-	-	-	-
Stage 1	784	-	-	-	-	-	-
Stage 2	798	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	600	+	-
HCM Lane V/C Ratio	-	-	0.232	-	-
HCM Control Delay (s)	-	-	12.8	-	-
HCM Lane LOS	-	-	B	-	-
HCM 95th %tile Q(veh)	-	-	0.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	7	0	0
Future Volume (vph)	6	0	0	7	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	8	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	87	0	1400	1331	8
Future Volume (vph)	0	87	0	1400	1331	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	207			369	420	
Travel Time (s)	4.7			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	95	0	1522	1456	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	87	0	1400	1331	8
Future Vol, veh/h	0	87	0	1400	1331	8
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	95	0	1522	1447	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	728	-	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	366	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	366	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	366	-	-
HCM Lane V/C Ratio	-	0.258	-	-
HCM Control Delay (s)	-	18.2	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1064	90	67	1006	59	93
Future Volume (vph)	1064	90	67	1006	59	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120	225		0	115
Storage Lanes		1	1		1	1
Taper Length (ft)			25		0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97	1.00		0.99	0.95
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.199		0.950	
Satd. Flow (perm)	3539	1535	370	3539	1761	1504
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		98				101
Link Speed (mph)	35			35	30	
Link Distance (ft)	636			400	1210	
Travel Time (s)	12.4			7.8	27.5	
Confl. Peds. (#/hr)		5	5		5	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1157	98	73	1093	64	101
Turn Type	NA	Perm	pm+pt	NA	Perm	Perm
Protected Phases	2		1	6		
Permitted Phases		2	6		8	8
Detector Phase	2	2	1	6	8	8
Switch Phase						
Minimum Initial (s)	35.0	35.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	41.0	35.0	35.0
Total Split (s)	70.0	70.0	12.0	82.0	18.0	18.0
Total Split (%)	70.0%	70.0%	12.0%	82.0%	18.0%	18.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	75.1	75.1	84.1	84.9	10.0	9.0
Actuated g/C Ratio	0.75	0.75	0.84	0.85	0.10	0.09
v/c Ratio	0.44	0.08	0.17	0.36	0.36	0.44
Control Delay	7.0	1.4	2.9	2.9	47.0	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	1.4	2.9	2.9	47.0	15.0
LOS	A	A	A	A	D	B
Approach Delay	6.6			2.9	27.4	
Approach LOS	A			A	C	
Queue Length 50th (ft)	152	0	10	91	39	0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	222	16	m15	m112	78	47
Internal Link Dist (ft)	556			320	1130	
Turn Bay Length (ft)		120	225			115
Base Capacity (vph)	2656	1176	427	3005	246	283
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.08	0.17	0.36	0.26	0.36

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 59 (59%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1174	3	3	4	1125	4	0	0	5	0	0
Future Volume (vph)	0	1174	3	3	4	1125	4	0	0	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850							0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1276	3	0	7	1227	0	0	0	5	0	0
Sign Control		Free				Free			Stop			Stop

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

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1174	3	3	4	1125	4	0	0	5	0	0	1
Future Vol, veh/h	0	1174	3	3	4	1125	4	0	0	5	0	0	1
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1276	3	3	4	1223	4	0	0	5	0	0	1

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1276	1289	0	0	-	-	653	-	-	629
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	220	534	-	-	0	0	410	0	0	425
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	327	327	-	-	-	-	404	-	-	419
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14	13.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	404	-	-	327	-	-	419
HCM Lane V/C Ratio	0.013	-	-	0.023	-	-	0.003
HCM Control Delay (s)	14	-	-	16.3	-	-	13.6
HCM Lane LOS	B	-	-	C	-	-	B
HCM 95th %tile Q(veh)	0	-	-	0.1	-	-	0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	1102	15	1	34	1044	12	8	1	21	23
Future Volume (vph)	15	28	1102	15	1	34	1044	12	8	1	21	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.998				0.998			0.906		
Flt Protected		0.950				0.950				0.987		
Satd. Flow (prot)	0	1770	3532	0	0	1770	3532	0	0	1666	0	0
Flt Permitted		0.950				0.950				0.987		
Satd. Flow (perm)	0	1770	3532	0	0	1770	3532	0	0	1666	0	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	1214	0	0	38	1148	0	0	33	0	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	3	56
Future Volume (vph)	3	56
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt	0.907	
Flt Protected	0.986	
Satd. Flow (prot)	1666	0
Flt Permitted	0.986	
Satd. Flow (perm)	1666	0
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	89	0
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	9.1

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	15	28	1102	15	1	34	1044	12	8	1	21	23	3	56
Future Vol, veh/h	15	28	1102	15	1	34	1044	12	8	1	21	23	3	56
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	30	1198	16	1	37	1135	13	9	1	23	25	3	61

Major/Minor	Major1				Major2				Minor1			Minor2		
Conflicting Flow All	1148	1158	0	0	1214	1224	0	0	1958	2542	622	1925	2544	589
Stage 1	-	-	-	-	-	-	-	-	1308	1308	-	1228	1228	-
Stage 2	-	-	-	-	-	-	-	-	650	1234	-	697	1316	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	267	599	-	-	242	565	-	-	38	27	430	40	27	452
Stage 1	-	-	-	-	-	-	-	-	168	228	-	189	249	-
Stage 2	-	-	-	-	-	-	-	-	424	247	-	398	226	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	385	385	-	-	538	538	-	-	25	22	424	31	22	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	25	22	-	31	22	-
Stage 1	-	-	-	-	-	-	-	-	146	198	-	164	229	-
Stage 2	-	-	-	-	-	-	-	-	334	227	-	327	196	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.4	91.1	216.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	72	385	-	-	538	-	-	82
HCM Lane V/C Ratio	0.453	0.121	-	-	0.071	-	-	1.087
HCM Control Delay (s)	91.1	15.6	-	-	12.2	-	-	216.3
HCM Lane LOS	F	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.8	0.4	-	-	0.2	-	-	6.2

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background SAT.syn

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	3	492	601	130	322	673	173	4	202	464	253	7
Future Volume (vph)	3	492	601	130	322	673	173	4	202	464	253	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		100	225		270		0		0	
Storage Lanes		2		1	2		1		2		1	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95
Ped Bike Factor				0.98			0.98				0.98	
Frt				0.850			0.850				0.850	
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0
Flt Permitted		0.374			0.950				0.500			
Satd. Flow (perm)	0	1352	3539	1557	3433	3539	1549	0	1807	3539	1557	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)				207			218				275	
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	538	653	141	350	732	188	0	224	504	275	0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5			2			6	3			8	7
Detector Phase	5	5	2	2	1	6	6	3	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0
Minimum Split (s)	10.0	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0
Total Split (s)	18.0	18.0	38.0	38.0	14.0	34.0	34.0	12.0	12.0	36.0	36.0	12.0
Total Split (%)	18.0%	18.0%	38.0%	38.0%	14.0%	34.0%	34.0%	12.0%	12.0%	36.0%	36.0%	12.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None
Act Effct Green (s)		14.0	34.0	34.0	10.0	30.0	30.0		8.0	32.0	32.0	
Actuated g/C Ratio		0.14	0.34	0.34	0.10	0.30	0.30		0.08	0.32	0.32	
v/c Ratio		2.85	0.54	0.21	1.02	0.69	0.30		1.56	0.45	0.40	
Control Delay		863.0	25.8	1.8	99.5	34.9	3.7		313.5	25.0	7.4	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		863.0	25.8	1.8	99.5	34.9	3.7		313.5	25.0	7.4	
LOS		F	C	A	F	C	A		F	C	A	
Approach Delay			361.4			48.1				84.6		
Approach LOS			F			D				F		
Queue Length 50th (ft)		~309	122	0	~119	215	0		~105	134	1	

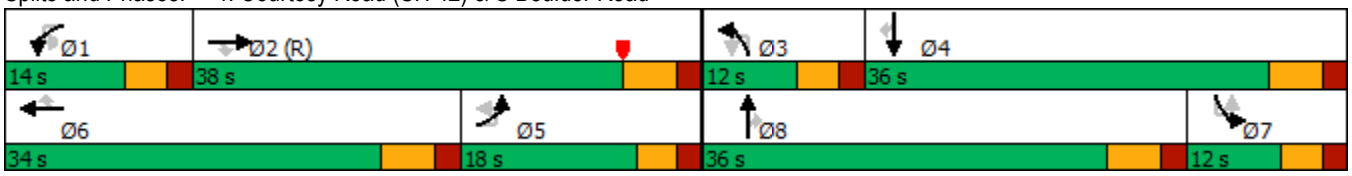
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	140	500	332
Future Volume (vph)	140	500	332
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	25		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.500		
Satd. Flow (perm)	1807	3539	1557
Right Turn on Red			Yes
Satd. Flow (RTOR)			328
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	160	543	361
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	12.0	36.0	36.0
Total Split (%)	12.0%	36.0%	36.0%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	8.0	32.0	32.0
Actuated g/C Ratio	0.08	0.32	0.32
v/c Ratio	1.11	0.48	0.50
Control Delay	152.0	29.1	6.9
Queue Delay	0.0	0.0	0.0
Total Delay	152.0	29.1	6.9
LOS	F	C	A
Approach Delay		40.0	
Approach LOS		D	
Queue Length 50th (ft)	~60	145	15

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#405	170	12	#213	282	34		#186	128	86	
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150		100	225		270					
Base Capacity (vph)		189	1203	666	343	1061	617		144	1132	685	
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		2.85	0.54	0.21	1.02	0.69	0.30		1.56	0.45	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.85
Intersection Signal Delay: 143.5 Intersection LOS: F
Intersection Capacity Utilization 85.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#126	196	85
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1132	721
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.11	0.48	0.50

Intersection Summary

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	1	0	921	938	10
Future Volume (vph)	0	1	0	921	938	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3532	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1	0	1001	1031	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	0	921	938	10
Future Vol, veh/h	0	1	0	921	938	10
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	0	1001	1020	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	521	-	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	500	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	498	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	498	-	-
HCM Lane V/C Ratio	-	0.002	-	-
HCM Control Delay (s)	-	12.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background SAT.syn

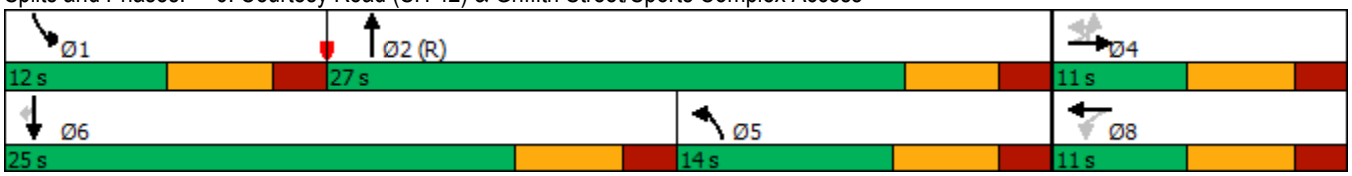
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	7	21	2	1	6	21	849	43	11	875	44
Future Volume (vph)	20	7	21	2	1	6	21	849	43	11	875	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	50		0	225		0	500		273
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												0.98
Frt		0.889			0.869			0.993				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1656	0	1770	1619	0	1770	3514	0	1770	3539	1583
Flt Permitted	0.800			0.800			0.950			0.950		
Satd. Flow (perm)	1490	1656	0	1490	1619	0	1770	3514	0	1770	3539	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			7			14				196
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	31	0	2	8	0	23	970	0	12	951	48
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0	25.0
Total Split (s)	11.0	11.0		11.0	11.0		14.0	27.0		12.0	25.0	25.0
Total Split (%)	22.0%	22.0%		22.0%	22.0%		28.0%	54.0%		24.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	Max	Max
Act Effct Green (s)	7.0	7.0		7.0	7.0		8.3	38.6		7.8	38.2	38.2
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.17	0.77		0.16	0.76	0.76
v/c Ratio	0.11	0.12		0.01	0.03		0.08	0.36		0.04	0.35	0.04
Control Delay	20.5	11.0		18.5	13.3		17.7	4.8		17.6	4.7	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.5	11.0		18.5	13.3		17.7	4.8		17.6	4.7	0.6
LOS	C	B		B	B		B	A		B	A	A
Approach Delay		15.0			14.3			5.1			4.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	6	3		1	0		6	43		5	116	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	17	15		5	9		20	149		m10	m166	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	208	251		208	232		354	2716		283	2704	1226
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	0.11	0.12		0.01	0.03		0.06	0.36		0.04	0.35	0.04

Intersection Summary	
Area Type: Other	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 48 (96%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 5.2	Intersection LOS: A
Intersection Capacity Utilization 39.3%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



7: Cannon Street & Griffith Street
2045 Background SAT.syn

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	31	20	15	57	1	14	0	16	1	0	1
Future Volume (vph)	0	31	20	15	57	1	14	0	16	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.947			0.998			0.928			0.932	
Flt Protected					0.990			0.977			0.976	
Satd. Flow (prot)	0	1764	0	0	1840	0	0	1689	0	0	1694	0
Flt Permitted					0.990			0.977			0.976	
Satd. Flow (perm)	0	1764	0	0	1840	0	0	1689	0	0	1694	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	79	0	0	32	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	20	15	57	1	14	0	16	1	0	1
Future Vol, veh/h	0	31	20	15	57	1	14	0	16	1	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	22	16	62	1	15	0	17	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	61	0	0	150	150	55	159	161	73
Stage 1	-	-	-	-	-	-	50	50	-	100	100	-
Stage 2	-	-	-	-	-	-	100	100	-	59	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1542	-	-	818	742	1012	807	731	989
Stage 1	-	-	-	-	-	-	963	853	-	906	812	-
Stage 2	-	-	-	-	-	-	906	812	-	953	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1535	-	-	802	726	1002	779	716	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	802	726	-	779	716	-
Stage 1	-	-	-	-	-	-	958	849	-	901	799	-
Stage 2	-	-	-	-	-	-	891	799	-	932	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	9.2	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	898	1526	-	-	1535	-	-	868
HCM Lane V/C Ratio	0.036	-	-	-	0.011	-	-	0.003
HCM Control Delay (s)	9.2	0	-	-	7.4	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	53	3	1	68	3	8	0	0	0	0	4
Future Volume (vph)	6	53	3	1	68	3	8	0	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.995						0.865	
Flt Protected		0.995			0.999			0.950				
Satd. Flow (prot)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.999			0.950				
Satd. Flow (perm)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	78	0	0	9	0	0	4	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	53	3	1	68	3	8	0	0	0	0	4
Future Vol, veh/h	6	53	3	1	68	3	8	0	0	0	0	4
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	58	3	1	74	3	9	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	71	0	0	169	168	75	162	168	86
Stage 1	-	-	-	-	-	-	84	84	-	83	83	-
Stage 2	-	-	-	-	-	-	85	84	-	79	85	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1515	-	-	1529	-	-	795	725	986	803	725	973
Stage 1	-	-	-	-	-	-	924	825	-	925	826	-
Stage 2	-	-	-	-	-	-	923	825	-	930	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1508	-	-	1514	-	-	777	710	972	792	710	964
Mov Cap-2 Maneuver	-	-	-	-	-	-	777	710	-	792	710	-
Stage 1	-	-	-	-	-	-	911	813	-	916	821	-
Stage 2	-	-	-	-	-	-	914	820	-	921	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.7	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	777	1508	-	-	1514	-	-	964
HCM Lane V/C Ratio	0.011	0.004	-	-	0.001	-	-	0.005
HCM Control Delay (s)	9.7	7.4	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	27	130	46	14	138
Future Volume (vph)	57	27	130	46	14	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957		0.965			
Flt Protected	0.967					0.995
Satd. Flow (prot)	1724	0	1798	0	0	1853
Flt Permitted	0.967					0.995
Satd. Flow (perm)	1724	0	1798	0	0	1853
Link Speed (mph)	30		30			30
Link Distance (ft)	405		350			1210
Travel Time (s)	9.2		8.0			27.5
Confl. Peds. (#/hr)	6	2		17	17	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	0	191	0	0	165
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 31.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	27	130	46	14	138
Future Vol, veh/h	57	27	130	46	14	138
Conflicting Peds, #/hr	6	2	0	17	17	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	29	141	50	15	150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	369	185	0	0	208	0
Stage 1	183	-	-	-	-	-
Stage 2	186	-	-	-	-	-
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	631	857	-	-	1363	-
Stage 1	848	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	610	842	-	-	1341	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	669	1341	-
HCM Lane V/C Ratio	-	-	0.136	0.011	-
HCM Control Delay (s)	-	-	11.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	0	9	0	0
Future Volume (vph)	4	0	0	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	49	0	878	931	6
Future Volume (vph)	0	49	0	878	931	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	193			369	420	
Travel Time (s)	4.4			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	53	0	954	1019	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	0	878	931	6
Future Vol, veh/h	0	49	0	878	931	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	954	1012	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	510	-	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	509	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	509	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	509	-	-
HCM Lane V/C Ratio	-	0.105	-	-
HCM Control Delay (s)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	936	112	8	75	1232	81	108
Future Volume (vph)	936	112	8	75	1232	81	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97		1.00		0.99	0.95
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.236		0.950	
Satd. Flow (perm)	3539	1531	0	439	3539	1759	1505
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		122					117
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1017	122	0	91	1339	88	117
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	85.4	85.4		98.1	98.1	13.9	12.9
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.12	0.11
v/c Ratio	0.40	0.11		0.20	0.46	0.43	0.44
Control Delay	8.0	1.4		5.0	5.5	55.0	13.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	8.0	1.4		5.0	5.5	55.0	13.9
LOS	A	A		A	A	E	B
Approach Delay	7.3				5.5	31.5	
Approach LOS	A				A	C	
Queue Length 50th (ft)	165	0		17	147	62	0

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	211	19		m30	m205	115	55
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2518	1124		469	2893	249	302
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.40	0.11		0.19	0.46	0.35	0.39

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 23 (19%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2026 Total AM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	904	24	2	7	1344	5	0	0	48	0	0
Future Volume (vph)	0	904	24	2	7	1344	5	0	0	48	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	983	26	0	10	1466	0	0	0	52	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 48.8%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	12
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	904	24	2	7	1344	5	0	0	48	0	0	11
Future Vol, veh/h	0	904	24	2	7	1344	5	0	0	48	0	0	11
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	983	26	2	8	1461	5	0	0	52	0	0	12

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	983	1019	0	0	-	-	507	-	-	748
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	340	677	-	-	0	0	511	0	0	355
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	532	532	-	-	-	-	504	-	-	350
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	13	15.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	504	-	-	532	-	-	350
HCM Lane V/C Ratio	0.104	-	-	0.018	-	-	0.034
HCM Control Delay (s)	13	-	-	11.9	-	-	15.6
HCM Lane LOS	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0.1

3: Cannon Circle/Private Access & S Boulder Road
2026 Total AM

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	931	9	1	17	1319	8	0	0	45	0
Future Volume (vph)	6	21	931	9	1	17	1319	8	0	0	45	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.999				0.999				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3536	0	0	1770	3536	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3536	0	0	1770	3536	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	1022	0	0	19	1443	0	0	0	49	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	36
Future Volume (vph)	0	36
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	39
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	0.8

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	21	931	9	1	17	1319	8	0	0	45	0	0	36
Future Vol, veh/h	6	21	931	9	1	17	1319	8	0	0	45	0	0	36
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	23	1012	10	1	18	1434	9	0	0	49	0	0	39

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1442	1453	0	0	1022	1032	0	0	-	-	526	-	-	737
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	172	462	-	-	321	669	-	-	0	0	496	0	0	361
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	319	319	-	-	619	619	-	-	-	-	489	-	-	356
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	13.2	16.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	489	319	-	-	619	-	-	356
HCM Lane V/C Ratio	0.1	0.092	-	-	0.032	-	-	0.11
HCM Control Delay (s)	13.2	17.4	-	-	11	-	-	16.4
HCM Lane LOS	B	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	0.4

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	31	312	429	175	261	683	153	177	467	198	5	128
Future Volume (vph)	31	312	429	175	261	683	153	177	467	198	5	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0	225		270	0		0		185
Storage Lanes		2		0	2		1	2		0		2
Taper Length (ft)		80			135			70				155
Lane Util. Factor	0.95	0.97	0.95	0.95	0.97	0.95	1.00	0.97	0.95	0.95	0.95	0.97
Ped Bike Factor			0.99				0.98		0.99			
Frt			0.957				0.850		0.955			
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	3433	3370	0	3433	3539	1583	3433	3363	0	0	3433
Flt Permitted		0.370			0.950			0.950				0.571
Satd. Flow (perm)	0	1337	3370	0	3433	3539	1546	3433	3363	0	0	2063
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			52				182		59			
Link Speed (mph)			35			35			45			
Link Distance (ft)			465			1815			418			
Travel Time (s)			9.1			35.4			6.3			
Confl. Peds. (#/hr)				5			10			5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	373	656	0	284	742	166	192	723	0	0	144
Turn Type	custom	Prot	NA		Prot	NA	Perm	Prot	NA		custom	Prot
Protected Phases		5	2		1	6		3	8			7
Permitted Phases	5						6				7	
Detector Phase	5	5	2		1	6	6	3	8		7	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	10.0	10.0	5.0	6.0		5.0	5.0
Minimum Split (s)	10.0	10.0	37.0		10.0	37.0	37.0	10.0	40.0		10.0	10.0
Total Split (s)	20.0	20.0	41.0		20.0	41.0	41.0	16.0	47.0		12.0	12.0
Total Split (%)	16.7%	16.7%	34.2%		16.7%	34.2%	34.2%	13.3%	39.2%		10.0%	10.0%
Yellow Time (s)	3.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)		5.0	6.0		5.0	6.0	6.0	5.0	6.0			5.0
Lead/Lag	Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max		None	Max	Max	None	Max		None	None
Act Effct Green (s)		15.0	36.1		13.9	35.0	35.0	10.5	41.0			7.0
Actuated g/C Ratio		0.12	0.30		0.12	0.29	0.29	0.09	0.34			0.06
v/c Ratio		2.23	0.63		0.71	0.72	0.29	0.64	0.61			1.20
Control Delay		597.4	30.9		61.5	42.8	4.9	63.3	32.6			193.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Delay		597.4	30.9		61.5	42.8	4.9	63.3	32.6			193.3
LOS		F	C		E	D	A	E	C			F
Approach Delay			236.2			42.0			39.0			
Approach LOS			F			D			D			
Queue Length 50th (ft)		~243	214		109	271	0	75	224			~69

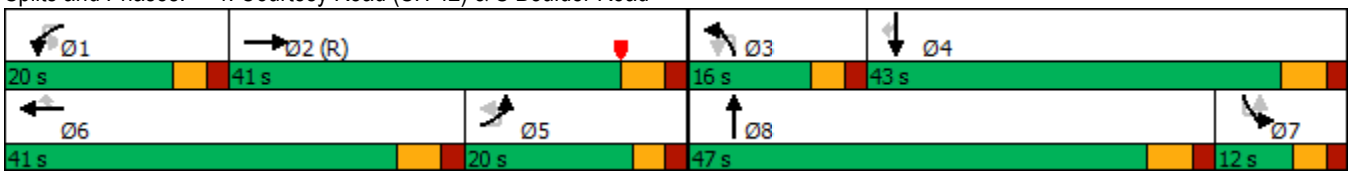
Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	582	440
Future Volume (vph)	582	440
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		270
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.98
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1555
Right Turn on Red		Yes
Satd. Flow (RTOR)		227
Link Speed (mph)	45	
Link Distance (ft)	1337	
Travel Time (s)	20.3	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	633	478
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	36.0	36.0
Total Split (s)	43.0	43.0
Total Split (%)	35.8%	35.8%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	37.5	37.5
Actuated g/C Ratio	0.31	0.31
v/c Ratio	0.57	0.74
Control Delay	37.1	27.1
Queue Delay	0.0	0.0
Total Delay	37.1	27.1
LOS	D	C
Approach Delay	51.2	
Approach LOS	D	
Queue Length 50th (ft)	216	180

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Queue Length 95th (ft)		#343	283		156	342	41	114	289			#138
Internal Link Dist (ft)			385			1735			338			
Turn Bay Length (ft)		150			225		270					185
Base Capacity (vph)		167	1049		429	1032	579	314	1187			120
Starvation Cap Reductn		0	0		0	0	0	0	0			0
Spillback Cap Reductn		0	0		0	0	0	0	0			0
Storage Cap Reductn		0	0		0	0	0	0	0			0
Reduced v/c Ratio		2.23	0.63		0.66	0.72	0.29	0.61	0.61			1.20

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.23
Intersection Signal Delay: 89.5 Intersection LOS: F
Intersection Capacity Utilization 86.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBT	SBR
Queue Length 95th (ft)	278	319
Internal Link Dist (ft)	1257	
Turn Bay Length (ft)		270
Base Capacity (vph)	1107	642
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.57	0.74

Intersection Summary

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1	17	1	13	821	1006	5
Future Volume (vph)	1	17	1	13	821	1006	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		140			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor							
Frt		0.865				0.999	
Flt Protected	0.950			0.950			
Satd. Flow (prot)	0	1611	0	1770	1863	3536	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	0	1611	0	1770	1863	3536	0
Link Speed (mph)	20				45	45	
Link Distance (ft)	418				430	418	
Travel Time (s)	14.3				6.5	6.3	
Confl. Peds. (#/hr)				5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1	18	0	15	892	1098	0
Sign Control	Stop				Free	Free	

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	1	17	1	13	821	1006	5
Future Vol, veh/h	1	17	1	13	821	1006	5
Conflicting Peds, #/hr	0	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	0	-	140	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	1	18	1	14	892	1093	5

Major/Minor	Minor2		Major1			Major2	
Conflicting Flow All	2021	554	1099	1103	0	-	0
Stage 1	1101	-	-	-	-	-	-
Stage 2	920	-	-	-	-	-	-
Critical Hdwy	6.63	6.93	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	3.119	2.219	-	-	-
Pot Cap-1 Maneuver	57	477	216	631	-	-	-
Stage 1	281	-	-	-	-	-	-
Stage 2	387	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	55	475	549	549	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-	-
Stage 1	272	-	-	-	-	-	-
Stage 2	385	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	549	-	475	-	-
HCM Lane V/C Ratio	0.028	-	0.039	-	-
HCM Control Delay (s)	11.7	-	12.9	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	0	54	0	0	0	37	815	4	5	934	94
Future Volume (vph)	19	0	54	0	0	0	37	815	4	5	934	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	225		0	500		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	0			0			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.900						0.999				0.850
Flt Protected		0.987					0.950			0.950		
Satd. Flow (prot)	0	1655	0	0	1863	1863	1770	1861	0	1770	1863	1583
Flt Permitted		0.987					0.950			0.950		
Satd. Flow (perm)	0	1655	0	0	1863	1863	1770	1861	0	1770	1863	1583
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			359	
Travel Time (s)		10.0			9.6			5.8			5.4	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	0	0	40	890	0	5	1015	102
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

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	19	0	54	0	0	0	37	815	4	5	934	94
Future Vol, veh/h	19	0	54	0	0	0	37	815	4	5	934	94
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	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	59	0	0	0	40	886	4	5	1015	102

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1993	1995	1015	2074	2095	888	1117	0	0	890	0	0
Stage 1	1025	1025	-	968	968	-	-	-	-	-	-	-
Stage 2	968	970	-	1106	1127	-	-	-	-	-	-	-
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	45	60	289	40	52	343	625	-	-	761	-	-
Stage 1	284	312	-	305	332	-	-	-	-	-	-	-
Stage 2	305	331	-	255	280	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	43	56	289	30	48	343	625	-	-	761	-	-
Mov Cap-2 Maneuver	43	56	-	30	48	-	-	-	-	-	-	-
Stage 1	266	310	-	285	311	-	-	-	-	-	-	-
Stage 2	285	310	-	202	278	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	85.8	0	0.5	0
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	625	-	-	116	-	-	761	-	-
HCM Lane V/C Ratio	0.064	-	-	0.684	-	-	0.007	-	-
HCM Control Delay (s)	11.2	-	-	85.8	0	0	9.8	-	-
HCM Lane LOS	B	-	-	F	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	3.6	-	-	0	-	-

7: Cannon Street & Griffith Street
2026 Total AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	61	13	14	101	2	32	0	9	0	0	1
Future Volume (vph)	0	61	13	14	101	2	32	0	9	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.998			0.970			0.865	
Flt Protected					0.994			0.963				
Satd. Flow (prot)	0	1818	0	0	1848	0	0	1740	0	0	1611	0
Flt Permitted					0.994			0.963				
Satd. Flow (perm)	0	1818	0	0	1848	0	0	1740	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	80	0	0	127	0	0	45	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 29.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	61	13	14	101	2	32	0	9	0	0	1
Future Vol, veh/h	0	61	13	14	101	2	32	0	9	0	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	14	15	110	2	35	0	10	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	85	0	0	225	225	83	229	231	121
Stage 1	-	-	-	-	-	-	78	78	-	146	146	-
Stage 2	-	-	-	-	-	-	147	147	-	83	85	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1471	-	-	1512	-	-	730	674	976	726	669	930
Stage 1	-	-	-	-	-	-	931	830	-	857	776	-
Stage 2	-	-	-	-	-	-	856	775	-	925	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1505	-	-	716	660	967	706	655	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	706	655	-
Stage 1	-	-	-	-	-	-	926	826	-	853	764	-
Stage 2	-	-	-	-	-	-	842	763	-	911	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	10	8.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1464	-	-	1505	-	-	921
HCM Lane V/C Ratio	0.059	-	-	-	0.01	-	-	0.001
HCM Control Delay (s)	10	0	-	-	7.4	0	-	8.9
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2026 Total AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	75	2	3	151	1	6	0	3	1	0	5
Future Volume (vph)	2	75	2	3	151	1	6	0	3	1	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.999			0.959			0.887	
Flt Protected		0.999			0.999			0.966			0.992	
Satd. Flow (prot)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Flt Permitted		0.999			0.999			0.966			0.992	
Satd. Flow (perm)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	168	0	0	10	0	0	6	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 21.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	75	2	3	151	1	6	0	3	1	0	5
Future Vol, veh/h	2	75	2	3	151	1	6	0	3	1	0	5
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	82	2	3	164	1	7	0	3	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	94	0	0	275	273	98	270	274	175
Stage 1	-	-	-	-	-	-	97	97	-	176	176	-
Stage 2	-	-	-	-	-	-	178	176	-	94	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1500	-	-	677	634	958	683	633	868
Stage 1	-	-	-	-	-	-	910	815	-	826	753	-
Stage 2	-	-	-	-	-	-	824	753	-	913	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1400	-	-	1486	-	-	661	623	944	673	622	860
Mov Cap-2 Maneuver	-	-	-	-	-	-	661	623	-	673	622	-
Stage 1	-	-	-	-	-	-	900	806	-	821	748	-
Stage 2	-	-	-	-	-	-	813	748	-	905	805	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	10	9.4
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	734	1400	-	-	1486	-	-	822
HCM Lane V/C Ratio	0.013	0.002	-	-	0.002	-	-	0.008
HCM Control Delay (s)	10	7.6	0	-	7.4	0	-	9.4
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	53	73	1	164	60	21	113
Future Volume (vph)	1	53	73	1	164	60	21	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								
Frt		0.923			0.964			
Flt Protected		0.979						0.992
Satd. Flow (prot)	0	1683	0	0	1796	0	0	1848
Flt Permitted		0.979						0.992
Satd. Flow (perm)	0	1683	0	0	1796	0	0	1848
Link Speed (mph)		30			30			30
Link Distance (ft)		405			350			1210
Travel Time (s)		9.2			8.0			27.5
Confl. Peds. (#/hr)	70	1	132	1		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	138	0	0	244	0	0	146
Sign Control		Stop			Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 42.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.1

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	53	73	1	164	60	21	113
Future Vol, veh/h	1	53	73	1	164	60	21	113
Conflicting Peds, #/hr	70	1	132	1	0	70	70	0
Sign Control	Stop	Stop	Stop	Free	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	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	58	79	1	178	65	23	123

Major/Minor	Minor1			Major1			Major2	
Conflicting Flow All	0	451	413	-	0	0	313	0
Stage 1	0	281	-	-	-	-	-	-
Stage 2	0	170	-	-	-	-	-	-
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	0	566	639	-	-	-	1247	-
Stage 1	0	767	-	-	-	-	-	-
Stage 2	0	860	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	516	521	-	-	-	1164	-
Mov Cap-2 Maneuver	0	516	-	-	-	-	-	-
Stage 1	0	700	-	-	-	-	-	-
Stage 2	0	859	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4		1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	519	1164	-
HCM Lane V/C Ratio	-	-	0.264	0.02	-
HCM Control Delay (s)	-	-	14.4	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	3	0	0
Future Volume (vph)	6	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	3	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2026 Total AM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	12	7	787	946	2
Future Volume (vph)	7	12	7	787	946	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.916					
Flt Protected	0.981					
Satd. Flow (prot)	1674	0	0	1863	3539	0
Flt Permitted	0.981					
Satd. Flow (perm)	1674	0	0	1863	3539	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	317			359	430	
Travel Time (s)	7.2			5.4	6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	0	863	1030	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.0%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	12	7	787	946	2
Future Vol, veh/h	7	12	7	787	946	2
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	13	8	855	1028	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1900	515	1030	0	-	0
Stage 1	1029	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	68	506	672	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	66	506	672	-	-	-
Mov Cap-2 Maneuver	66	-	-	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	408	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.7	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	672	-	146	-	-
HCM Lane V/C Ratio	0.011	-	0.141	-	-
HCM Control Delay (s)	10.4	0	33.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1302	106	21	69	1030	98	189
Future Volume (vph)	1302	106	21	69	1030	98	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97				0.99	0.94
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.138		0.950	
Satd. Flow (perm)	3539	1531	0	257	3539	1759	1484
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		83					128
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1415	115	0	98	1120	107	205
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	85.7	85.7		98.5	98.5	13.5	12.5
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.11	0.10
v/c Ratio	0.56	0.10		0.31	0.39	0.54	0.76
Control Delay	9.7	2.4		8.4	6.1	59.9	38.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	9.7	2.4		8.4	6.1	59.9	38.7
LOS	A	A		A	A	E	D
Approach Delay	9.2				6.3	46.0	
Approach LOS	A				A	D	
Queue Length 50th (ft)	243	6		24	142	79	57

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	344	27		m42	m195	135	141
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2527	1117		337	2904	249	308
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.56	0.10		0.29	0.39	0.43	0.67

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2026 Total PM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1438	53	4	16	1116	5	0	0	50	0	0
Future Volume (vph)	0	1438	53	4	16	1116	5	0	0	50	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1563	58	0	21	1218	0	0	0	54	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	5
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1438	53	4	16	1116	5	0	0	50	0	0	5
Future Vol, veh/h	0	1438	53	4	16	1116	5	0	0	50	0	0	5
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1563	58	4	17	1213	5	0	0	54	0	0	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1563	1631	0	0	-	-	797	-	-	624
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	143	394	-	-	0	0	329	0	0	428
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	270	270	-	-	-	-	324	-	-	422
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	18.3	13.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	324	-	-	270	-	-	422
HCM Lane V/C Ratio	0.168	-	-	0.081	-	-	0.013
HCM Control Delay (s)	18.3	-	-	19.5	-	-	13.6
HCM Lane LOS	C	-	-	C	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	0.3	-	-	0

3: Cannon Circle/Private Access & S Boulder Road
2026 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1472	45	2	40	1126	12	0	0	65	0
Future Volume (vph)	23	48	1472	45	2	40	1126	12	0	0	65	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.996				0.998				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3525	0	0	1770	3532	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3525	0	0	1770	3532	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	1649	0	0	45	1237	0	0	0	71	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	66
Future Volume (vph)	0	66
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	72
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	1.5

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	23	48	1472	45	2	40	1126	12	0	0	65	0	0	66
Future Vol, veh/h	23	48	1472	45	2	40	1126	12	0	0	65	0	0	66
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	52	1600	49	2	43	1224	13	0	0	71	0	0	72

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1237	1247	0	0	1649	1659	0	0	-	-	840	-	-	634
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	234	554	-	-	126	384	-	-	0	0	309	0	0	422
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	348	348	-	-	335	335	-	-	-	-	305	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.6	20.3	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	305	348	-	-	335	-	-	416
HCM Lane V/C Ratio	0.232	0.222	-	-	0.136	-	-	0.172
HCM Control Delay (s)	20.3	18.3	-	-	17.4	-	-	15.4
HCM Lane LOS	C	C	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.9	0.8	-	-	0.5	-	-	0.6

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	29	591	751	193	355	652	202	1	132	709	255	9
Future Volume (vph)	29	591	751	193	355	652	202	1	132	709	255	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0	225		270		0		0	
Storage Lanes		2		0	2		1		2		0	
Taper Length (ft)		80			135				70			
Lane Util. Factor	0.95	0.97	0.95	0.95	0.97	0.95	1.00	0.95	0.97	0.95	0.95	0.95
Ped Bike Factor			1.00				0.98			1.00		
Frt			0.969				0.850			0.960		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3417	0	3433	3539	1583	0	3433	3382	0	0
Flt Permitted		0.382			0.950				0.308			
Satd. Flow (perm)	0	1380	3417	0	3433	3539	1546	0	1113	3382	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			28				210			43		
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	674	1026	0	386	709	220	0	144	1048	0	0
Turn Type	custom	Prot	NA		Prot	NA	Perm	custom	Prot	NA		custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5						6	3				7
Detector Phase	5	5	2		1	6	6	3	3	8		7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	10.0	10.0	5.0	5.0	6.0		5.0
Minimum Split (s)	10.0	10.0	37.0		10.0	37.0	37.0	10.0	10.0	40.0		10.0
Total Split (s)	24.0	24.0	43.0		18.0	37.0	37.0	18.0	18.0	41.0		18.0
Total Split (%)	20.0%	20.0%	35.8%		15.0%	30.8%	30.8%	15.0%	15.0%	34.2%		15.0%
Yellow Time (s)	3.0	3.0	4.0		3.0	4.0	4.0	3.0	3.0	4.0		3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Lost Time (s)		5.0	6.0		5.0	6.0	6.0		5.0	6.0		
Lead/Lag	Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead	Lead		Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max		None	Max	Max	None	None	Max		None
Act Effct Green (s)		19.0	37.0		13.0	31.0	31.0		13.0	35.0		
Actuated g/C Ratio		0.16	0.31		0.11	0.26	0.26		0.11	0.29		
v/c Ratio		3.09	0.96		1.04	0.78	0.40		1.20	1.03		
Control Delay		969.9	52.9		109.4	48.1	7.8		191.3	76.8		
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Delay		969.9	52.9		109.4	48.1	7.8		191.3	76.8		
LOS		F	D		F	D	A		F	E		
Approach Delay			416.5			59.3				90.6		
Approach LOS			F			E				F		
Queue Length 50th (ft)		~475	401		~165	268	6		~69	~444		

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM

Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	139	546	333
Future Volume (vph)	139	546	333
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	155		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.308		
Satd. Flow (perm)	1113	3539	1555
Right Turn on Red			Yes
Satd. Flow (RTOR)			321
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	161	593	362
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	18.0	41.0	41.0
Total Split (%)	15.0%	34.2%	34.2%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	13.0	35.0	35.0
Actuated g/C Ratio	0.11	0.29	0.29
v/c Ratio	1.34	0.57	0.53
Control Delay	240.4	38.8	8.8
Queue Delay	0.0	0.0	0.0
Total Delay	240.4	38.8	8.8
LOS	F	D	A
Approach Delay		58.2	
Approach LOS		E	
Queue Length 50th (ft)	~83	205	23

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#597	#544		#267	341	68		#138	#581		
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150			225		270					
Base Capacity (vph)		218	1072		371	914	555		120	1016		
Starvation Cap Reductn		0	0		0	0	0		0	0		
Spillback Cap Reductn		0	0		0	0	0		0	0		
Storage Cap Reductn		0	0		0	0	0		0	0		
Reduced v/c Ratio		3.09	0.96		1.04	0.78	0.40		1.20	1.03		

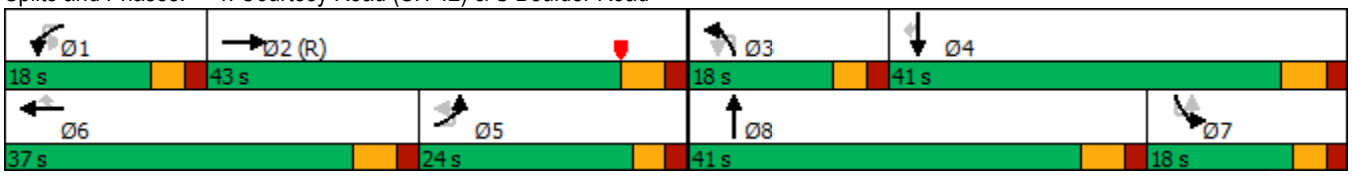
Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.09
Intersection Signal Delay: 180.2 Intersection LOS: F
Intersection Capacity Utilization 94.4% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#156	266	107
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	120	1032	680
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.34	0.57	0.53

Intersection Summary

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total PM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	19	26	1112	1071	19
Future Volume (vph)	1	19	26	1112	1071	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.997	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	0	1611	1770	1863	3529	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	0	1611	1770	1863	3529	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			424	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	21	28	1209	1185	0
Sign Control	Stop			Free	Free	

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	19	26	1112	1071	19
Future Vol, veh/h	1	19	26	1112	1071	19
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	140	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	21	28	1209	1164	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2445	598	1190	0	-	0
Stage 1	1180	-	-	-	-	-
Stage 2	1265	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	30	446	585	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	28	444	582	-	-	-
Mov Cap-2 Maneuver	28	-	-	-	-	-
Stage 1	241	-	-	-	-	-
Stage 2	263	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	582	-	444	-	-
HCM Lane V/C Ratio	0.049	-	0.047	-	-
HCM Control Delay (s)	11.5	-	13.5	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	11	0	39	1	1	1	19	1107	2	1	1009
Future Volume (vph)	2	11	0	39	1	1	1	19	1107	2	1	1009
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		60	225		0	500	
Storage Lanes		0		0	0		1	1		0	1	
Taper Length (ft)		0			0			25			50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.899				0.850					
Flt Protected			0.988			0.976		0.950			0.950	
Satd. Flow (prot)	0	0	1655	0	0	1818	1583	1770	1863	0	1770	1863
Flt Permitted			0.988			0.976		0.950			0.950	
Satd. Flow (perm)	0	0	1655	0	0	1818	1583	1770	1863	0	1770	1863
Link Speed (mph)			30			20			45			45
Link Distance (ft)			439			281			380			365
Travel Time (s)			10.0			9.6			5.8			5.5
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	56	0	0	2	1	21	1205	0	1	1097
Sign Control			Stop			Stop			Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	133
Future Volume (vph)	133
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	145
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	2.9

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	11	0	39	1	1	1	19	1107	2	1	1009	133
Future Vol, veh/h	2	11	0	39	1	1	1	19	1107	2	1	1009	133
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	12	0	42	1	1	1	21	1203	2	1	1097	145

Major/Minor	Minor2				Minor1			Major1			Major2		
Conflicting Flow All	0	2346	2346	1097	2439	2490	1204	1242	0	0	1205	0	0
Stage 1	0	1099	1099	-	1246	1246	-	-	-	-	-	-	-
Stage 2	0	1247	1247	-	1193	1244	-	-	-	-	-	-	-
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	0	25	36	259	22	29	224	561	-	-	579	-	-
Stage 1	0	258	288	-	213	246	-	-	-	-	-	-	-
Stage 2	0	213	245	-	228	246	-	-	-	-	-	-	-
Platoon blocked, %	-								-	-		-	-
Mov Cap-1 Maneuver	0	23	35	259	18	28	224	561	-	-	579	-	-
Mov Cap-2 Maneuver	0	23	35	-	18	28	-	-	-	-	-	-	-
Stage 1	0	248	287	-	205	237	-	-	-	-	-	-	-
Stage 2	0	203	236	-	190	246	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	115.6	130.9	0.2	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	561	-	-	80	22	224	579	-	-
HCM Lane V/C Ratio	0.037	-	-	0.679	0.099	0.005	0.002	-	-
HCM Control Delay (s)	11.7	-	-	115.6	185.8	21.2	11.2	-	-
HCM Lane LOS	B	-	-	F	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.2	0.3	0	0	-	-

7: Cannon Street & Griffith Street
2026 Total PM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	36	26	1	27	129	1	28	1	5	0	2
Future Volume (vph)	2	36	26	1	27	129	1	28	1	5	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150		150		150	150		150	150	
Storage Lanes	0		0		0		0	0		0	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.945				0.999			0.981			
Flt Protected		0.999				0.991			0.960			
Satd. Flow (prot)	0	1759	0	0	0	1844	0	0	1754	0	0	1863
Flt Permitted		0.999				0.991			0.960			
Satd. Flow (perm)	0	1759	0	0	0	1844	0	0	1754	0	0	1863
Link Speed (mph)		30				30			25			25
Link Distance (ft)		390				439			346			362
Travel Time (s)		8.9				10.0			9.4			9.9
Confl. Peds. (#/hr)	5		5		5		5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	69	0	0	0	171	0	0	36	0	0	2
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 31.1%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	36	26	1	27	129	1	28	1	5	0	2	0
Future Vol, veh/h	2	36	26	1	27	129	1	28	1	5	0	2	0
Conflicting Peds, #/hr	5	0	5	0	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	28	1	29	140	1	30	1	5	0	2	0

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	146	0	0	-	72	0	0	267	268	63	269	282	151
Stage 1	-	-	-	-	-	-	-	62	62	-	204	206	-
Stage 2	-	-	-	-	-	-	-	205	206	-	65	76	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1436	-	-	-	1528	-	-	686	638	1002	684	627	895
Stage 1	-	-	-	-	-	-	-	949	843	-	798	731	-
Stage 2	-	-	-	-	-	-	-	797	731	-	946	832	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1429	-	-	~ -29	~ -29	-	-	677	631	992	672	620	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	677	631	-	672	620	-
Stage 1	-	-	-	-	-	-	-	943	838	-	793	727	-
Stage 2	-	-	-	-	-	-	-	791	727	-	934	827	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2		10.4	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	709	1429	-	-	+	-	-	620
HCM Lane V/C Ratio	0.052	0.002	-	-	-	-	-	0.004
HCM Control Delay (s)	10.4	7.5	0	-	-	-	-	10.8
HCM Lane LOS	B	A	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	-	-	-	0

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

8: Griffith Street & Front Street
2026 Total PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	70	6	5	165	0	2	0	1	3	0	0
Future Volume (vph)	4	70	6	5	165	0	2	0	1	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0		0	
Storage Lanes	0		0	0		0	0		0		0	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989						0.955				0.932
Flt Protected		0.998			0.999			0.968				0.976
Satd. Flow (prot)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Flt Permitted		0.998			0.999			0.968				0.976
Satd. Flow (perm)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Link Speed (mph)		30			30			25				25
Link Distance (ft)		405			390			333				365
Travel Time (s)		9.2			8.9			9.1				10.0
Confl. Peds. (#/hr)	5		10	10		5	5		5		5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	184	0	0	3	0	0	0	6
Sign Control		Free			Free			Stop				Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.3%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	3
Future Volume (vph)	3
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	70	6	5	165	0	2	0	1	3	0	0	3
Future Vol, veh/h	4	70	6	5	165	0	2	0	1	3	0	0	3
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	76	7	5	179	0	2	0	1	3	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	184	0	0	93	0	0	294	292	95	0	287	295	189
Stage 1	-	-	-	-	-	-	98	98	-	0	194	194	-
Stage 2	-	-	-	-	-	-	196	194	-	0	93	101	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1391	-	-	1501	-	-	658	619	962	0	665	616	853
Stage 1	-	-	-	-	-	-	908	814	-	0	808	740	-
Stage 2	-	-	-	-	-	-	806	740	-	0	914	811	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1384	-	-	1487	-	-	643	605	948	0	654	602	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	643	605	-	0	654	602	-
Stage 1	-	-	-	-	-	-	897	803	-	0	802	733	-
Stage 2	-	-	-	-	-	-	796	733	-	0	906	800	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	10	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1384	-	-	1487	-	-	845
HCM Lane V/C Ratio	0.005	0.003	-	-	0.004	-	-	0.004
HCM Control Delay (s)	10	7.6	0	-	7.4	0	-	9.3
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

9: Main Street & Griffith Street
2026 Total PM

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	90	57	233	39	1	39	144
Future Volume (vph)	90	57	233	39	1	39	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							
Frt	0.948		0.981				
Flt Protected	0.970						0.989
Satd. Flow (prot)	1713	0	1827	0	0	0	1842
Flt Permitted	0.970						0.989
Satd. Flow (perm)	1713	0	1827	0	0	0	1842
Link Speed (mph)	30		30				30
Link Distance (ft)	405		350				1210
Travel Time (s)	9.2		8.0				27.5
Confl. Peds. (#/hr)	2	10		7	10	7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	160	0	295	0	0	0	200
Sign Control	Stop		Free				Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	90	57	233	39	1	39	144
Future Vol, veh/h	90	57	233	39	1	39	144
Conflicting Peds, #/hr	2	10	0	7	10	7	0
Sign Control	Stop	Stop	Free	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	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	98	62	253	42	1	42	157

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	524	291	0	0	-	302	0
Stage 1	281	-	-	-	-	-	-
Stage 2	243	-	-	-	-	-	-
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	514	748	-	-	-	1259	-
Stage 1	767	-	-	-	-	-	-
Stage 2	797	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	509	736	-	-	~ -41	~ -41	-
Mov Cap-2 Maneuver	509	-	-	-	-	-	-
Stage 1	762	-	-	-	-	-	-
Stage 2	795	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	578	+	-
HCM Lane V/C Ratio	-	-	0.276	-	-
HCM Control Delay (s)	-	-	13.6	-	-
HCM Lane LOS	-	-	B	-	-
HCM 95th %tile Q(veh)	-	-	1.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

10: Front Street & Harper Street
2026 Total PM

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	7	0	0
Future Volume (vph)	6	0	0	7	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	8	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2026 Total PM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	26	61	7	1049	996	8
Future Volume (vph)	26	61	7	1049	996	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.905				0.999	
Flt Protected	0.985					
Satd. Flow (prot)	1660	0	0	1863	3536	0
Flt Permitted	0.985					
Satd. Flow (perm)	1660	0	0	1863	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	263			365	424	
Travel Time (s)	6.0			5.5	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	1148	1092	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 72.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	61	7	1049	996	8
Future Vol, veh/h	26	61	7	1049	996	8
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	66	8	1140	1083	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2244	546	1092	0	-	0
Stage 1	1088	-	-	-	-	-
Stage 2	1156	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	41	483	637	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	40	483	637	-	-	-
Mov Cap-2 Maneuver	40	-	-	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	299	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	118	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	637	-	112	-	-
HCM Lane V/C Ratio	0.012	-	0.844	-	-
HCM Control Delay (s)	10.7	0	118	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	5	-	-

1: Main Street & S Boulder Road
2026 Total SAT

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	852	94	26	67	805	68	106
Future Volume (vph)	852	94	26	67	805	68	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97		1.00		0.99	0.95
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.263		0.950	
Satd. Flow (perm)	3539	1535	0	489	3539	1761	1504
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		102					115
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	926	102	0	101	875	74	115
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	70.0	70.0	12.0	12.0	82.0	18.0	18.0
Total Split (%)	70.0%	70.0%	12.0%	12.0%	82.0%	18.0%	18.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	71.6	71.6		81.5	81.5	10.5	9.5
Actuated g/C Ratio	0.72	0.72		0.82	0.82	0.10	0.10
v/c Ratio	0.37	0.09		0.20	0.30	0.40	0.47
Control Delay	6.8	1.4		3.2	3.1	47.5	14.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	6.8	1.4		3.2	3.1	47.5	14.4
LOS	A	A		A	A	D	B
Approach Delay	6.2				3.1	27.4	
Approach LOS	A				A	C	
Queue Length 50th (ft)	115	0		13	68	45	0

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	163	16		m22	m90	87	50
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2532	1127		505	2885	246	295
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.37	0.09		0.20	0.30	0.30	0.39

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 59 (59%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2026 Total SAT

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	952	28	3	11	924	4	0	0	34	0	0
Future Volume (vph)	0	952	28	3	11	924	4	0	0	34	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				75			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.999				0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3536	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1035	30	0	15	1008	0	0	0	37	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 37.9%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	952	28	3	11	924	4	0	0	34	0	0	1
Future Vol, veh/h	0	952	28	3	11	924	4	0	0	34	0	0	1
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1035	30	3	12	1004	4	0	0	37	0	0	1

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1035	1075	0	0	-	-	533	-	-	519
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	315	644	-	-	0	0	491	0	0	502
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	509	509	-	-	-	-	484	-	-	495
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	13.1	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	484	-	-	509	-	-	495
HCM Lane V/C Ratio	0.076	-	-	0.03	-	-	0.002
HCM Control Delay (s)	13.1	-	-	12.3	-	-	12.3
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	-	0

3: Cannon Circle/Private Access & S Boulder Road
2026 Total SAT

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	914	26	1	44	850	12	0	0	48	0
Future Volume (vph)	15	28	914	26	1	44	850	12	0	0	48	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				80			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.996				0.998				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3525	0	0	1770	3532	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3525	0	0	1770	3532	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	1021	0	0	49	937	0	0	0	52	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 44.5%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	82
Future Volume (vph)	0	82
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	89
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	1.4

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	15	28	914	26	1	44	850	12	0	0	48	0	0	82
Future Vol, veh/h	15	28	914	26	1	44	850	12	0	0	48	0	0	82
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	30	993	28	1	48	924	13	0	0	52	0	0	89

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	937	947	0	0	1022	1031	0	0	-	-	526	-	-	484
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	364	721	-	-	321	670	-	-	0	0	496	0	0	529
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	488	488	-	-	645	645	-	-	-	-	489	-	-	521
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.5	13.2	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	489	488	-	-	645	-	-	521
HCM Lane V/C Ratio	0.107	0.096	-	-	0.076	-	-	0.171
HCM Control Delay (s)	13.2	13.2	-	-	11	-	-	13.3
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0.2	-	-	0.6

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	29	397	473	118	252	533	135	2	160	363	199	5
Future Volume (vph)	29	397	473	118	252	533	135	2	160	363	199	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		0	225		270		0		0	
Storage Lanes		2		0	2		1		2		0	
Taper Length (ft)		80			135				70			
Lane Util. Factor	0.95	0.97	0.95	0.95	0.97	0.95	1.00	0.95	0.97	0.95	0.95	0.95
Ped Bike Factor			1.00				0.98			0.99		
Frt			0.970				0.850			0.947		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3422	0	3433	3539	1583	0	3433	3332	0	0
Flt Permitted		0.434			0.950				0.571			
Satd. Flow (perm)	0	1568	3422	0	3433	3539	1549	0	2063	3332	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			32				218			105		
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	642	0	274	579	147	0	176	611	0	0
Turn Type	custom	Prot	NA		Prot	NA	Perm	custom	Prot	NA		custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5						6	3				7
Detector Phase	5	5	2		1	6	6	3	3	8		7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0		5.0	10.0	10.0	5.0	5.0	6.0		5.0
Minimum Split (s)	10.0	10.0	37.0		10.0	37.0	37.0	10.0	10.0	40.0		10.0
Total Split (s)	18.0	18.0	38.0		14.0	34.0	34.0	12.0	12.0	36.0		12.0
Total Split (%)	18.0%	18.0%	38.0%		14.0%	34.0%	34.0%	12.0%	12.0%	36.0%		12.0%
Yellow Time (s)	3.0	3.0	4.0		3.0	4.0	4.0	3.0	3.0	4.0		3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Lost Time (s)		5.0	6.0		5.0	6.0	6.0		5.0	6.0		
Lead/Lag	Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead	Lead		Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max		None	Max	Max	None	None	Max		None
Act Effct Green (s)		13.0	32.0		9.0	28.0	28.0		7.0	30.0		
Actuated g/C Ratio		0.13	0.32		0.09	0.28	0.28		0.07	0.30		
v/c Ratio		2.29	0.58		0.89	0.58	0.25		1.22	0.57		
Control Delay		615.7	25.8		75.6	33.8	1.8		187.7	26.6		
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0	0.0		
Total Delay		615.7	25.8		75.6	33.8	1.8		187.7	26.6		
LOS		F	C		E	C	A		F	C		
Approach Delay			273.3			40.6				62.6		
Approach LOS			F			D				E		
Queue Length 50th (ft)		~253	121		90	166	0		~71	142		

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT

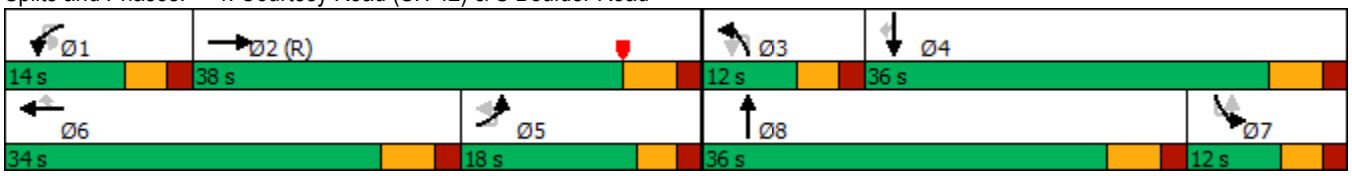
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	110	397	268
Future Volume (vph)	110	397	268
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	155		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.571		
Satd. Flow (perm)	2063	3539	1557
Right Turn on Red			Yes
Satd. Flow (RTOR)			268
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	125	432	291
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	12.0	36.0	36.0
Total Split (%)	12.0%	36.0%	36.0%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0	6.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	7.0	30.0	30.0
Actuated g/C Ratio	0.07	0.30	0.30
v/c Ratio	0.87	0.41	0.44
Control Delay	94.1	29.3	6.9
Queue Delay	0.0	0.0	0.0
Total Delay	94.1	29.3	6.9
LOS	F	C	A
Approach Delay		31.2	
Approach LOS		C	
Queue Length 50th (ft)	41	115	10

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#346	158		#163	223	10		#140	199		
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150			225		270					
Base Capacity (vph)		203	1116		308	990	590		144	1073		
Starvation Cap Reductn		0	0		0	0	0		0	0		
Spillback Cap Reductn		0	0		0	0	0		0	0		
Storage Cap Reductn		0	0		0	0	0		0	0		
Reduced v/c Ratio		2.29	0.58		0.89	0.58	0.25		1.22	0.57		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.29
Intersection Signal Delay: 111.9 Intersection LOS: F
Intersection Capacity Utilization 88.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#96	160	73
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1061	654
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.87	0.41	0.44

Intersection Summary

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total SAT

Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	8	10	1	11	717	750	15
Future Volume (vph)	8	10	1	11	717	750	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		140			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			100			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor							
Frt		0.865				0.997	
Flt Protected	0.950			0.950			
Satd. Flow (prot)	0	1611	0	1770	1863	3529	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	0	1611	0	1770	1863	3529	0
Link Speed (mph)	20				45	45	
Link Distance (ft)	418				420	418	
Travel Time (s)	14.3				6.4	6.3	
Confl. Peds. (#/hr)				5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	9	11	0	13	779	831	0
Sign Control	Stop				Free	Free	

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	8	10	1	11	717	750	15
Future Vol, veh/h	8	10	1	11	717	750	15
Conflicting Peds, #/hr	0	0	0	5	0	0	5
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	0	-	140	-	-	-
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	9	11	1	12	779	815	16

Major/Minor	Minor2		Major1			Major2	
Conflicting Flow All	1631	421	832	836	0	-	0
Stage 1	828	-	-	-	-	-	-
Stage 2	803	-	-	-	-	-	-
Critical Hdwy	6.63	6.93	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	3.119	2.219	-	-	-
Pot Cap-1 Maneuver	102	582	327	796	-	-	-
Stage 1	390	-	-	-	-	-	-
Stage 2	440	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	99	579	706	706	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-	-
Stage 1	381	-	-	-	-	-	-
Stage 2	438	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	706	-	579	-	-
HCM Lane V/C Ratio	0.018	-	0.019	-	-
HCM Control Delay (s)	10.2	-	11.3	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total SAT

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	7	21	2	1	6	21	676	43	11	704	50
Future Volume (vph)	14	7	21	2	1	6	21	676	43	11	704	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	225		0	500		0
Storage Lanes	0		0	0		1	1		0	1		1
Taper Length (ft)	0			0			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932				0.850		0.991				0.850
Flt Protected		0.984			0.968		0.950			0.950		
Satd. Flow (prot)	0	1708	0	0	1803	1583	1770	1846	0	1770	1863	1583
Flt Permitted		0.984			0.968		0.950			0.950		
Satd. Flow (perm)	0	1708	0	0	1803	1583	1770	1846	0	1770	1863	1583
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	3	7	23	782	0	12	765	54
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	7	21	2	1	6	21	676	43	11	704	50
Future Vol, veh/h	14	7	21	2	1	6	21	676	43	11	704	50
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	-	-	-	-	-	60	225	-	-	500	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	8	23	2	1	7	23	735	47	12	765	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1598	1617	765	1637	1648	759	819	0	0	782	0	0
Stage 1	789	789	-	805	805	-	-	-	-	-	-	-
Stage 2	809	828	-	832	843	-	-	-	-	-	-	-
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	86	103	403	81	99	406	810	-	-	836	-	-
Stage 1	384	402	-	376	395	-	-	-	-	-	-	-
Stage 2	374	386	-	363	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	81	99	403	70	95	406	810	-	-	836	-	-
Mov Cap-2 Maneuver	81	99	-	70	95	-	-	-	-	-	-	-
Stage 1	373	396	-	365	384	-	-	-	-	-	-	-
Stage 2	357	375	-	331	375	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	41.9	27.3	0.3	0.1
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	810	-	-	142	77	406	836	-	-
HCM Lane V/C Ratio	0.028	-	-	0.321	0.042	0.016	0.014	-	-
HCM Control Delay (s)	9.6	-	-	41.9	53.8	14	9.4	-	-
HCM Lane LOS	A	-	-	E	F	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.3	0.1	0	0	-	-

7: Cannon Street & Griffith Street
2026 Total SAT

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	31	24	15	63	1	23	0	10	1	0	1
Future Volume (vph)	0	31	24	15	63	1	23	0	10	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.941			0.998			0.959			0.932	
Flt Protected					0.991			0.966			0.976	
Satd. Flow (prot)	0	1753	0	0	1842	0	0	1726	0	0	1694	0
Flt Permitted					0.991			0.966			0.976	
Satd. Flow (perm)	0	1753	0	0	1842	0	0	1726	0	0	1694	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	0	85	0	0	36	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	24	15	63	1	23	0	10	1	0	1
Future Vol, veh/h	0	31	24	15	63	1	23	0	10	1	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	26	16	68	1	25	0	11	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	65	0	0	158	158	57	164	171	79
Stage 1	-	-	-	-	-	-	52	52	-	106	106	-
Stage 2	-	-	-	-	-	-	106	106	-	58	65	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1537	-	-	808	734	1009	801	722	981
Stage 1	-	-	-	-	-	-	961	852	-	900	807	-
Stage 2	-	-	-	-	-	-	900	807	-	954	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1530	-	-	793	719	999	779	707	972
Mov Cap-2 Maneuver	-	-	-	-	-	-	793	719	-	779	707	-
Stage 1	-	-	-	-	-	-	956	848	-	896	794	-
Stage 2	-	-	-	-	-	-	885	794	-	939	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	9.4	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	846	1519	-	-	1530	-	-	865
HCM Lane V/C Ratio	0.042	-	-	-	0.011	-	-	0.003
HCM Control Delay (s)	9.4	0	-	-	7.4	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2026 Total SAT

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	57	3	1	83	3	8	0	0	0	0	4
Future Volume (vph)	6	57	3	1	83	3	8	0	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.996						0.865	
Flt Protected		0.995			0.999			0.950				
Satd. Flow (prot)	0	1842	0	0	1853	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.999			0.950				
Satd. Flow (perm)	0	1842	0	0	1853	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	94	0	0	9	0	0	4	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 23.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	57	3	1	83	3	8	0	0	0	0	4
Future Vol, veh/h	6	57	3	1	83	3	8	0	0	0	0	4
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	62	3	1	90	3	9	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	98	0	0	75	0	0	189	188	79	182	188	102
Stage 1	-	-	-	-	-	-	88	88	-	99	99	-
Stage 2	-	-	-	-	-	-	101	100	-	83	89	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1495	-	-	1524	-	-	771	707	981	779	707	953
Stage 1	-	-	-	-	-	-	920	822	-	907	813	-
Stage 2	-	-	-	-	-	-	905	812	-	925	821	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1488	-	-	1509	-	-	753	692	967	768	692	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	753	692	-	768	692	-
Stage 1	-	-	-	-	-	-	907	810	-	898	808	-
Stage 2	-	-	-	-	-	-	896	807	-	916	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.8	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	753	1488	-	-	1509	-	-	944
HCM Lane V/C Ratio	0.012	0.004	-	-	0.001	-	-	0.005
HCM Control Delay (s)	9.8	7.4	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

9: Main Street & Griffith Street
2026 Total SAT

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	63	36	143	46	18	138
Future Volume (vph)	63	36	143	46	18	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.951		0.967			
Flt Protected	0.969					0.994
Satd. Flow (prot)	1717	0	1801	0	0	1852
Flt Permitted	0.969					0.994
Satd. Flow (perm)	1717	0	1801	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	405		350			1210
Travel Time (s)	9.2		8.0			27.5
Confl. Peds. (#/hr)	6	2		17	17	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	205	0	0	170
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 35.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	36	143	46	18	138
Future Vol, veh/h	63	36	143	46	18	138
Conflicting Peds, #/hr	6	2	0	17	17	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	39	155	50	20	150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	393	199	0	0	222	0
Stage 1	197	-	-	-	-	-
Stage 2	196	-	-	-	-	-
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	611	842	-	-	1347	-
Stage 1	836	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	588	827	-	-	1325	-
Mov Cap-2 Maneuver	588	-	-	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	657	1325	-
HCM Lane V/C Ratio	-	-	0.164	0.015	-
HCM Control Delay (s)	-	-	11.6	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

10: Front Street & Harper Street
2026 Total SAT

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	0	9	0	0
Future Volume (vph)	4	0	0	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2026 Total SAT

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	38	11	6	652	691	6
Future Volume (vph)	38	11	6	652	691	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.969				0.999	
Flt Protected	0.963					
Satd. Flow (prot)	1738	0	0	1863	3536	0
Flt Permitted	0.963					
Satd. Flow (perm)	1738	0	0	1863	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	248			369	420	
Travel Time (s)	5.6			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	716	758	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	11	6	652	691	6
Future Vol, veh/h	38	11	6	652	691	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	12	7	709	751	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1478	379	758	0	-	0
Stage 1	755	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Critical Hdwy	6.63	6.93	4.13	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	127	620	851	-	-	-
Stage 1	426	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	125	620	851	-	-	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	420	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.9	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	851	-	152	-	-
HCM Lane V/C Ratio	0.008	-	0.35	-	-
HCM Control Delay (s)	9.3	0	40.9	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0	-	1.4	-	-

1: Main Street & S Boulder Road
2045 Total AM

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1199	111	8	75	1559	67	113
Future Volume (vph)	1199	111	8	75	1559	67	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97				0.99	0.95
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.162		0.950	
Satd. Flow (perm)	3539	1531	0	302	3539	1759	1505
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		94					123
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1303	121	0	91	1695	73	123
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	85.7	85.7		98.4	98.4	13.6	12.6
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.11	0.10
v/c Ratio	0.52	0.11		0.26	0.58	0.37	0.46
Control Delay	9.2	2.3		4.7	6.8	53.1	14.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	9.2	2.3		4.7	6.8	53.1	14.0
LOS	A	A		A	A	D	B
Approach Delay	8.6				6.7	28.6	
Approach LOS	A				A	C	
Queue Length 50th (ft)	240	6		22	238	51	0

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	300	26		m24	m258	98	56
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2526	1119		369	2901	249	307
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.52	0.11		0.25	0.58	0.29	0.40

Intersection Summary	
Area Type: Other	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 23 (19%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2045 Total AM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1153	34	2	16	1700	5	0	0	40	0	0
Future Volume (vph)	0	1153	34	2	16	1700	5	0	0	40	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850							0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1253	37	0	19	1853	0	0	0	43	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	11
Future Volume (vph)	11
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	12
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1153	34	2	16	1700	5	0	0	40	0	0	11
Future Vol, veh/h	0	1153	34	2	16	1700	5	0	0	40	0	0	11
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1253	37	2	17	1848	5	0	0	43	0	0	12

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1253	1300	0	0	-	-	642	-	-	942
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	228	529	-	-	0	0	417	0	0	264
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	447	447	-	-	-	-	411	-	-	260
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.8	19.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	411	-	-	447	-	-	260
HCM Lane V/C Ratio	0.106	-	-	0.044	-	-	0.046
HCM Control Delay (s)	14.8	-	-	13.4	-	-	19.5
HCM Lane LOS	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	-	0.1

3: Cannon Circle/Private Access & S Boulder Road
2045 Total AM

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	1167	12	1	31	1678	8	0	0	38	0
Future Volume (vph)	6	21	1167	12	1	31	1678	8	0	0	38	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.998				0.999				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3532	0	0	1770	3536	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3532	0	0	1770	3536	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	1281	0	0	35	1833	0	0	0	41	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

3: Cannon Circle/Private Access & S Boulder Road
2045 Total AM

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	36
Future Volume (vph)	0	36
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	39
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	0.8

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	21	1167	12	1	31	1678	8	0	0	38	0	0	36
Future Vol, veh/h	6	21	1167	12	1	31	1678	8	0	0	38	0	0	36
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	23	1268	13	1	34	1824	9	0	0	41	0	0	39

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1833	1843	0	0	1282	1291	0	0	-	-	656	-	-	932
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	96	326	-	-	218	533	-	-	0	0	408	0	0	268
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	197	197	-	-	502	502	-	-	-	-	402	-	-	264
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	15	21
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	402	197	-	-	502	-	-	264
HCM Lane V/C Ratio	0.103	0.149	-	-	0.069	-	-	0.148
HCM Control Delay (s)	15	26.5	-	-	12.7	-	-	21
HCM Lane LOS	C	D	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.3	0.5	-	-	0.2	-	-	0.5

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	24	389	543	212	332	874	195	1	244	603	258	7
Future Volume (vph)	24	389	543	212	332	874	195	1	244	603	258	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		100	225		270		0		0	
Storage Lanes		2		1	2		1		2		1	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95
Ped Bike Factor				0.98			0.98				0.98	
Frt				0.850			0.850				0.850	
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0
Flt Permitted		0.301			0.950				0.333			
Satd. Flow (perm)	0	1088	3539	1555	3433	3539	1546	0	1203	3539	1556	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)				173			182				280	
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	449	590	230	361	950	212	0	266	655	280	0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5			2			6	3			8	7
Detector Phase	5	5	2	2	1	6	6	3	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0
Minimum Split (s)	10.0	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0
Total Split (s)	20.0	20.0	41.0	41.0	20.0	41.0	41.0	16.0	16.0	47.0	47.0	12.0
Total Split (%)	16.7%	16.7%	34.2%	34.2%	16.7%	34.2%	34.2%	13.3%	13.3%	39.2%	39.2%	10.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None
Act Effct Green (s)		16.0	37.3	37.3	15.7	37.0	37.0		12.0	43.0	43.0	
Actuated g/C Ratio		0.13	0.31	0.31	0.13	0.31	0.31		0.10	0.36	0.36	
v/c Ratio		3.10	0.54	0.38	0.80	0.87	0.35		2.22	0.52	0.38	
Control Delay		977.5	29.6	11.9	65.1	49.2	8.5		597.6	35.4	9.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		977.5	29.6	11.9	65.1	49.2	8.5		597.6	35.4	9.3	
LOS		F	C	B	E	D	A		F	D	A	
Approach Delay			361.8			47.3				153.9		
Approach LOS			F			D				F		
Queue Length 50th (ft)		~317	199	67	141	365	16		~172	241	7	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM

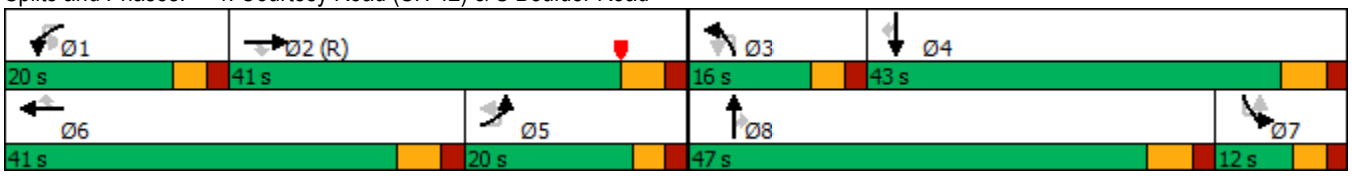
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	164	745	563
Future Volume (vph)	164	745	563
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	25		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.500		
Satd. Flow (perm)	1807	3539	1555
Right Turn on Red			Yes
Satd. Flow (RTOR)			231
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	186	810	612
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	12.0	43.0	43.0
Total Split (%)	10.0%	35.8%	35.8%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	8.0	39.0	39.0
Actuated g/C Ratio	0.07	0.32	0.32
v/c Ratio	1.55	0.70	0.93
Control Delay	321.4	39.4	45.7
Queue Delay	0.0	0.0	0.0
Total Delay	321.4	39.4	45.7
LOS	F	D	D
Approach Delay		74.5	
Approach LOS		E	
Queue Length 50th (ft)	~104	288	311

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#424	261	127	#207	#460	75		#255	308	87	
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150		100	225		270					
Base Capacity (vph)		145	1099	602	457	1091	602		120	1268	737	
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		3.10	0.54	0.38	0.79	0.87	0.35		2.22	0.52	0.38	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.10
Intersection Signal Delay: 149.2 Intersection LOS: F
Intersection Capacity Utilization 93.3% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#180	361	#552
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	120	1150	661
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.55	0.70	0.93

Intersection Summary

5: Courtesy Road (SH 42) & Cannon Circle
2045 Total AM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	13	0	1078	1274	8
Future Volume (vph)	0	13	0	1078	1274	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	14	0	1172	1394	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	1078	1274	8
Future Vol, veh/h	0	13	0	1078	1274	8
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	0	1172	1385	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	702	-	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	381	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	379	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	379	-	-
HCM Lane V/C Ratio	-	0.037	-	-
HCM Control Delay (s)	-	14.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total AM

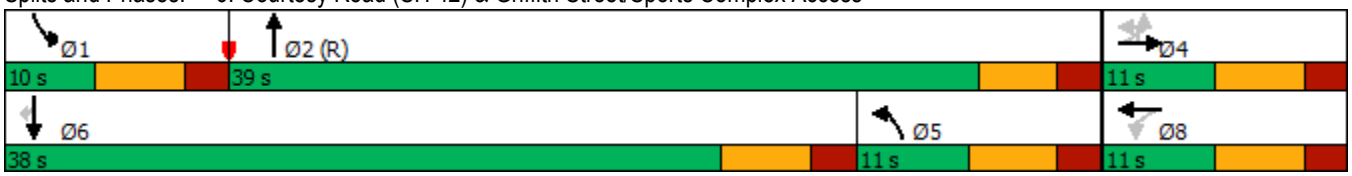
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	54	1	1	1	37	1047	4	5	1177	91
Future Volume (vph)	29	0	54	1	1	1	37	1047	4	5	1177	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	50		0	225		0	500		273
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												0.98
Frt		0.850			0.925			0.999				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1723	0	1770	3536	0	1770	3539	1583
Flt Permitted	0.800			0.800			0.950			0.950		
Satd. Flow (perm)	1490	1583	0	1490	1723	0	1770	3536	0	1770	3539	1546
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		273			1			1				164
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	59	0	1	2	0	40	1142	0	5	1279	99
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0	25.0
Total Split (s)	11.0	11.0		11.0	11.0		11.0	39.0		10.0	38.0	38.0
Total Split (%)	18.3%	18.3%		18.3%	18.3%		18.3%	65.0%		16.7%	63.3%	63.3%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	Max	Max
Act Effct Green (s)	7.0	7.0		7.0	7.0		7.0	49.0		6.6	46.6	46.6
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.12	0.82		0.11	0.78	0.78
v/c Ratio	0.18	0.14		0.01	0.01		0.19	0.40		0.03	0.47	0.08
Control Delay	26.7	0.7		24.0	21.0		26.5	3.9		29.2	4.4	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	26.7	0.7		24.0	21.0		26.5	3.9		29.2	4.4	0.6
LOS	C	A		C	C		C	A		C	A	A
Approach Delay		9.8			22.0			4.7			4.2	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)	11	0		0	0		13	55		3	158	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	26	0		4	6		38	164		m5	279	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	173	425		173	201		206	2888		195	2748	1237
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	0.18	0.14		0.01	0.01		0.19	0.40		0.03	0.47	0.08

Intersection Summary	
Area Type: Other	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 43 (72%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 4.7	Intersection LOS: A
Intersection Capacity Utilization 47.5%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



7: Cannon Street & Griffith Street
2045 Total AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	61	12	14	98	2	19	0	19	0	0	1
Future Volume (vph)	0	61	12	14	98	2	19	0	19	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.978			0.998			0.932			0.865	
Flt Protected					0.994			0.976				
Satd. Flow (prot)	0	1822	0	0	1848	0	0	1694	0	0	1611	0
Flt Permitted					0.994			0.976				
Satd. Flow (perm)	0	1822	0	0	1848	0	0	1694	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	124	0	0	42	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 29.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	61	12	14	98	2	19	0	19	0	0	1
Future Vol, veh/h	0	61	12	14	98	2	19	0	19	0	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	13	15	107	2	21	0	21	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	114	0	0	84	0	0	222	222	83	231	227	118
Stage 1	-	-	-	-	-	-	78	78	-	143	143	-
Stage 2	-	-	-	-	-	-	144	144	-	88	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1475	-	-	1513	-	-	734	677	976	724	672	934
Stage 1	-	-	-	-	-	-	931	830	-	860	779	-
Stage 2	-	-	-	-	-	-	859	778	-	920	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1506	-	-	720	663	967	696	658	925
Mov Cap-2 Maneuver	-	-	-	-	-	-	720	663	-	696	658	-
Stage 1	-	-	-	-	-	-	926	826	-	856	767	-
Stage 2	-	-	-	-	-	-	845	766	-	896	821	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	9.6	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	825	1468	-	-	1506	-	-	925
HCM Lane V/C Ratio	0.05	-	-	-	0.01	-	-	0.001
HCM Control Delay (s)	9.6	0	-	-	7.4	0	-	8.9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2045 Total AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	74	2	3	135	1	6	0	3	1	0	5
Future Volume (vph)	2	74	2	3	135	1	6	0	3	1	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.999			0.959			0.887	
Flt Protected		0.999			0.999			0.966			0.992	
Satd. Flow (prot)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Flt Permitted		0.999			0.999			0.966			0.992	
Satd. Flow (perm)	0	1855	0	0	1859	0	0	1726	0	0	1639	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	151	0	0	10	0	0	6	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 20.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	74	2	3	135	1	6	0	3	1	0	5
Future Vol, veh/h	2	74	2	3	135	1	6	0	3	1	0	5
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	80	2	3	147	1	7	0	3	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	153	0	0	92	0	0	256	254	96	251	255	158
Stage 1	-	-	-	-	-	-	95	95	-	159	159	-
Stage 2	-	-	-	-	-	-	161	159	-	92	96	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1428	-	-	1503	-	-	697	650	960	702	649	887
Stage 1	-	-	-	-	-	-	912	816	-	843	766	-
Stage 2	-	-	-	-	-	-	841	766	-	915	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1421	-	-	1489	-	-	681	638	946	691	637	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	681	638	-	691	637	-
Stage 1	-	-	-	-	-	-	902	807	-	838	761	-
Stage 2	-	-	-	-	-	-	830	761	-	907	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	9.9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	751	1421	-	-	1489	-	-	841
HCM Lane V/C Ratio	0.013	0.002	-	-	0.002	-	-	0.008
HCM Control Delay (s)	9.9	7.5	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

9: Main Street & Griffith Street
2045 Total AM

Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	50	59	1	169	60	20	113
Future Volume (vph)	1	50	59	1	169	60	20	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								
Frt		0.927			0.965			
Flt Protected		0.977						0.992
Satd. Flow (prot)	0	1687	0	0	1798	0	0	1848
Flt Permitted		0.977						0.992
Satd. Flow (perm)	0	1687	0	0	1798	0	0	1848
Link Speed (mph)		30			30			30
Link Distance (ft)		405			350			1210
Travel Time (s)		9.2			8.0			27.5
Confl. Peds. (#/hr)	70	1	132	1		7	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	119	0	0	250	0	0	145
Sign Control		Stop			Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 41.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.6

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	50	59	1	169	60	20	113
Future Vol, veh/h	1	50	59	1	169	60	20	113
Conflicting Peds, #/hr	70	1	132	1	0	7	70	0
Sign Control	Stop	Stop	Stop	Free	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	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	54	64	1	184	65	22	123

Major/Minor	Minor1			Major1			Major2	
Conflicting Flow All	0	455	419	-	0	0	319	0
Stage 1	0	287	-	-	-	-	-	-
Stage 2	0	168	-	-	-	-	-	-
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	0	563	634	-	-	-	1241	-
Stage 1	0	762	-	-	-	-	-	-
Stage 2	0	862	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	514	517	-	-	-	1158	-
Mov Cap-2 Maneuver	0	514	-	-	-	-	-	-
Stage 1	0	696	-	-	-	-	-	-
Stage 2	0	861	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14		1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	516	1158	-
HCM Lane V/C Ratio	-	-	0.23	0.019	-
HCM Control Delay (s)	-	-	14	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

10: Front Street & Harper Street
2045 Total AM

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	3	0	0
Future Volume (vph)	6	0	0	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	3	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2045 Total AM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	19	0	1060	1250	2
Future Volume (vph)	0	19	0	1060	1250	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3539	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3539	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	189			369	420	
Travel Time (s)	4.3			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	21	0	1152	1361	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	19	0	1060	1250	2
Future Vol, veh/h	0	19	0	1060	1250	2
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	21	0	1152	1359	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	681	-	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	393	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	393	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	393	-	-
HCM Lane V/C Ratio	-	0.053	-	-
HCM Control Delay (s)	-	14.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1661	102	21	69	1318	89	194
Future Volume (vph)	1661	102	21	69	1318	89	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97				0.99	0.95
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.070		0.950	
Satd. Flow (perm)	3539	1531	0	130	3539	1759	1505
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		63					92
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1805	111	0	98	1433	97	211
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	85.0	85.0	14.0	14.0	99.0	21.0	21.0
Total Split (%)	70.8%	70.8%	11.7%	11.7%	82.5%	17.5%	17.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	84.4	84.4		97.3	97.3	14.7	13.7
Actuated g/C Ratio	0.70	0.70		0.81	0.81	0.12	0.11
v/c Ratio	0.73	0.10		0.43	0.50	0.45	0.84
Control Delay	13.6	3.3		11.6	7.7	55.1	55.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	13.6	3.3		11.6	7.7	55.1	55.7
LOS	B	A		B	A	E	E
Approach Delay	13.0				7.9	55.5	
Approach LOS	B				A	E	
Queue Length 50th (ft)	430	11		35	229	69	90

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	535	30		m41	m234	124	#205
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2487	1094		242	2870	249	280
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.73	0.10		0.40	0.50	0.39	0.75

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 83.2% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2045 Total PM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1829	63	4	30	1423	5	0	0	64	0	0
Future Volume (vph)	0	1829	63	4	30	1423	5	0	0	64	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850							0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1988	68	0	37	1552	0	0	0	70	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	5
Future Volume (vph)	5
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	5
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1829	63	4	30	1423	5	0	0	64	0	0	5
Future Vol, veh/h	0	1829	63	4	30	1423	5	0	0	64	0	0	5
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1988	68	4	33	1547	5	0	0	70	0	0	5

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1988	2066	0	0	-	-	1009	-	-	791
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	76	267	-	-	0	0	238	0	0	332
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	182	182	-	-	-	-	235	-	-	327
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.7	26.6	16.2
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	235	-	-	182	-	-	327
HCM Lane V/C Ratio	0.296	-	-	0.203	-	-	0.017
HCM Control Delay (s)	26.6	-	-	29.7	-	-	16.2
HCM Lane LOS	D	-	-	D	-	-	C
HCM 95th %tile Q(veh)	1.2	-	-	0.7	-	-	0.1

3: Cannon Circle/Private Access & S Boulder Road
2045 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1876	47	2	62	1453	12	0	0	80	0
Future Volume (vph)	23	48	1876	47	2	62	1453	12	0	0	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.996				0.999				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3525	0	0	1770	3536	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3525	0	0	1770	3536	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	2090	0	0	69	1592	0	0	0	87	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	66
Future Volume (vph)	0	66
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	72
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	2.2

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	23	48	1876	47	2	62	1453	12	0	0	80	0	0	66
Future Vol, veh/h	23	48	1876	47	2	62	1453	12	0	0	80	0	0	66
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	52	2039	51	2	67	1579	13	0	0	87	0	0	72

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1592	1602	0	0	2090	2100	0	0	-	-	1060	-	-	811
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	137	404	-	-	65	258	-	-	0	0	220	0	0	322
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	213	213	-	-	220	220	-	-	-	-	217	-	-	317
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	1.2	32.3	19.6
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	217	213	-	-	220	-	-	317
HCM Lane V/C Ratio	0.401	0.362	-	-	0.316	-	-	0.226
HCM Control Delay (s)	32.3	31.2	-	-	28.8	-	-	19.6
HCM Lane LOS	D	D	-	-	D	-	-	C
HCM 95th %tile Q(veh)	1.8	1.6	-	-	1.3	-	-	0.9

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	39	757	962	247	453	832	258	1	199	910	328	12
Future Volume (vph)	39	757	962	247	453	832	258	1	199	910	328	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		100	225		270		0		0	
Storage Lanes		2		1	2		1		2		1	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95
Ped Bike Factor				0.98			0.98				0.98	
Frt				0.850			0.850				0.850	
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0
Flt Permitted		0.315			0.950				0.286			
Satd. Flow (perm)	0	1138	3539	1555	3433	3539	1546	0	1034	3539	1556	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)				173			196				287	
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	1046	268	492	904	280	0	217	989	357	0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5			2			6	3			8	7
Detector Phase	5	5	2	2	1	6	6	3	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0
Minimum Split (s)	10.0	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0
Total Split (s)	24.0	24.0	43.0	43.0	18.0	37.0	37.0	18.0	18.0	41.0	41.0	18.0
Total Split (%)	20.0%	20.0%	35.8%	35.8%	15.0%	30.8%	30.8%	15.0%	15.0%	34.2%	34.2%	15.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None
Act Effct Green (s)		20.0	39.0	39.0	14.0	33.0	33.0		14.0	37.0	37.0	
Actuated g/C Ratio		0.17	0.32	0.32	0.12	0.28	0.28		0.12	0.31	0.31	
v/c Ratio		4.58	0.91	0.43	1.23	0.93	0.49		1.81	0.91	0.53	
Control Delay		1631.4	42.6	9.6	167.8	58.8	14.5		421.8	48.8	12.1	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		1631.4	42.6	9.6	167.8	58.8	14.5		421.8	48.8	12.1	
LOS		F	D	A	F	E	B		F	D	B	
Approach Delay			669.2			83.4				92.2		
Approach LOS			F			F				F		
Queue Length 50th (ft)		~650	410	76	~242	359	50		~131	395	63	

Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	177	697	423
Future Volume (vph)	177	697	423
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	25		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.290		
Satd. Flow (perm)	1048	3539	1555
Right Turn on Red			Yes
Satd. Flow (RTOR)			276
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	205	758	460
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	18.0	41.0	41.0
Total Split (%)	15.0%	34.2%	34.2%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	14.0	37.0	37.0
Actuated g/C Ratio	0.12	0.31	0.31
v/c Ratio	1.68	0.69	0.69
Control Delay	372.3	40.6	19.9
Queue Delay	0.0	0.0	0.0
Total Delay	372.3	40.6	19.9
LOS	F	D	B
Approach Delay		81.7	
Approach LOS		F	
Queue Length 50th (ft)	~119	271	124

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#780	#534	m109	#351	#484	133		#211	#516	124	
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150		100	225		270					
Base Capacity (vph)		189	1150	622	400	973	567		120	1091	678	
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		4.58	0.91	0.43	1.23	0.93	0.49		1.81	0.91	0.53	

Intersection Summary

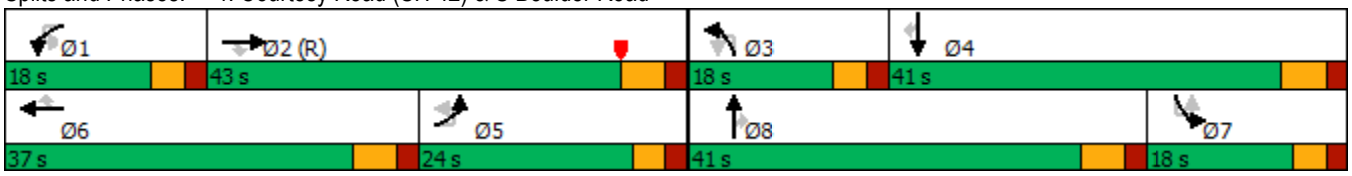
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.58
Intersection Signal Delay: 271.7 Intersection LOS: F
Intersection Capacity Utilization 95.6% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#199	342	250
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	122	1091	670
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.68	0.69	0.69

Intersection Summary

5: Courtesy Road (SH 42) & Cannon Circle
2045 Total PM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	26	0	1458	1367	21
Future Volume (vph)	0	26	0	1458	1367	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3532	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			430	418	
Travel Time (s)	14.3			6.5	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	28	0	1585	1509	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	0	1458	1367	21
Future Vol, veh/h	0	26	0	1458	1367	21
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	1585	1486	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	760	-	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	349	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	347	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	347	-	-
HCM Lane V/C Ratio	-	0.081	-	-
HCM Control Delay (s)	-	16.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total PM

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	17	0	39	1	1	1	19	1415	2	1	1291
Future Volume (vph)	2	17	0	39	1	1	1	19	1415	2	1	1291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50		0	50		0	225		0	500	
Storage Lanes		1		0	1		0	1		0	1	
Taper Length (ft)		25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor												
Frt			0.850			0.925						
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	1583	0	1770	1723	0	1770	3539	0	1770	3539
Flt Permitted		0.800			0.800			0.950			0.950	
Satd. Flow (perm)	0	1490	1583	0	1490	1723	0	1770	3539	0	1770	3539
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			273			1						
Link Speed (mph)			30			20			45			45
Link Distance (ft)			439			281			380			359
Travel Time (s)			10.0			9.6			5.8			5.4
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	42	0	1	2	0	21	1540	0	1	1403
Turn Type	Perm	Perm	NA		Perm	NA		Prot	NA		Prot	NA
Protected Phases			4			8		5	2		1	6
Permitted Phases	4	4			8							
Detector Phase	4	4	4		8	8		5	2		1	6
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0
Minimum Split (s)	25.0	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0
Total Split (s)	11.0	11.0	11.0		11.0	11.0		11.0	39.0		10.0	38.0
Total Split (%)	18.3%	18.3%	18.3%		18.3%	18.3%		18.3%	65.0%		16.7%	63.3%
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0
Total Lost Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lead/Lag								Lag	Lag		Lead	Lead
Lead-Lag Optimize?								Yes	Yes		Yes	Yes
Recall Mode	None	None	None		None	None		None	C-Max		None	Max
Act Effct Green (s)		7.0	7.0		7.0	7.0		7.0	49.0		6.6	48.8
Actuated g/C Ratio		0.12	0.12		0.12	0.12		0.12	0.82		0.11	0.81
v/c Ratio		0.12	0.10		0.01	0.01		0.10	0.53		0.01	0.49
Control Delay		24.9	0.5		24.0	21.0		25.1	5.0		31.0	5.1
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		24.9	0.5		24.0	21.0		25.1	5.0		31.0	5.1
LOS		C	A		C	C		C	A		C	A
Approach Delay			8.3			22.0			5.3			4.8
Approach LOS			A			C			A			A
Queue Length 50th (ft)		7	0		0	0		7	90		1	245

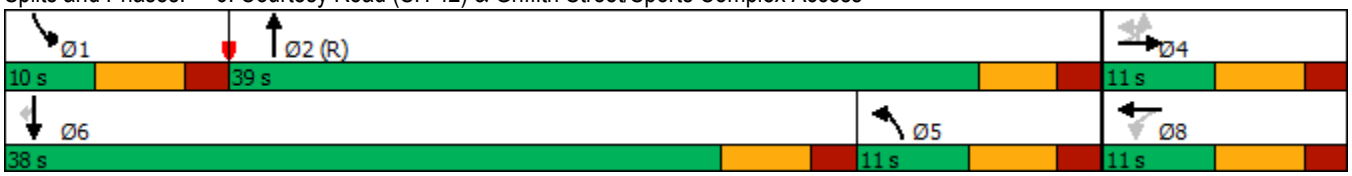
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	137
Future Volume (vph)	137
Ideal Flow (vphpl)	1900
Storage Length (ft)	273
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	0.98
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1546
Right Turn on Red	Yes
Satd. Flow (RTOR)	164
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	149
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	25.0
Total Split (s)	38.0
Total Split (%)	63.3%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	4.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	48.8
Actuated g/C Ratio	0.81
v/c Ratio	0.12
Control Delay	1.7
Queue Delay	0.0
Total Delay	1.7
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	16

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		m19	0		4	6		24	265		m1	m282
Internal Link Dist (ft)			359			201			300			279
Turn Bay Length (ft)		50			50			225			500	
Base Capacity (vph)		173	425		173	201		206	2890		195	2878
Starvation Cap Reductn		0	0		0	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.12	0.10		0.01	0.01		0.10	0.53		0.01	0.49

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



Lane Group	SBR
Queue Length 95th (ft)	m26
Internal Link Dist (ft)	
Turn Bay Length (ft)	273
Base Capacity (vph)	1288
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.12

Intersection Summary

7: Cannon Street & Griffith Street
2045 Total PM

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	36	22	1	27	133	1	19	1	11	0	2
Future Volume (vph)	2	36	22	1	27	133	1	19	1	11	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150		150		150	150		150	150	
Storage Lanes	0		0		0		0	0		0	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.950				0.999			0.952			
Flt Protected		0.998				0.992			0.970			
Satd. Flow (prot)	0	1766	0	0	0	1846	0	0	1720	0	0	1863
Flt Permitted		0.998				0.992			0.970			
Satd. Flow (perm)	0	1766	0	0	0	1846	0	0	1720	0	0	1863
Link Speed (mph)		30				30			25			25
Link Distance (ft)		390				439			346			362
Travel Time (s)		8.9				10.0			9.4			9.9
Confl. Peds. (#/hr)	5		5		5		5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	0	176	0	0	34	0	0	2
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	36	22	1	27	133	1	19	1	11	0	2	0
Future Vol, veh/h	2	36	22	1	27	133	1	19	1	11	0	2	0
Conflicting Peds, #/hr	5	0	5	0	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	39	24	1	29	145	1	21	1	12	0	2	0

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	151	0	0	-	68	0	0	270	271	61	276	283	156
Stage 1	-	-	-	-	-	-	-	60	60	-	209	211	-
Stage 2	-	-	-	-	-	-	-	210	211	-	67	72	-
Critical Hdwy	4.12	-	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	-	1533	-	-	683	636	1004	676	626	890
Stage 1	-	-	-	-	-	-	-	951	845	-	793	728	-
Stage 2	-	-	-	-	-	-	-	792	728	-	943	835	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1423	-	-	~ -29	~ -29	-	-	674	629	994	660	619	882
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	674	629	-	660	619	-
Stage 1	-	-	-	-	-	-	-	945	840	-	788	724	-
Stage 2	-	-	-	-	-	-	-	786	724	-	925	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3		10	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1423	-	-	+	-	-	619
HCM Lane V/C Ratio	0.044	0.002	-	-	-	-	-	0.004
HCM Control Delay (s)	10	7.5	0	-	-	-	-	10.8
HCM Lane LOS	B	A	A	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

8: Griffith Street & Front Street
2045 Total PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	66	6	5	160	0	2	0	1	3	0	0
Future Volume (vph)	4	66	6	5	160	0	2	0	1	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0		0	
Storage Lanes	0		0	0		0	0		0		0	
Taper Length (ft)	25			25			25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989						0.955				0.932
Flt Protected		0.998			0.999			0.968				0.976
Satd. Flow (prot)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Flt Permitted		0.998			0.999			0.968				0.976
Satd. Flow (perm)	0	1839	0	0	1861	0	0	1722	0	0	0	1694
Link Speed (mph)		30			30			25				25
Link Distance (ft)		405			390			333				365
Travel Time (s)		9.2			8.9			9.1				10.0
Confl. Peds. (#/hr)	5		10	10		5	5		5		5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	179	0	0	3	0	0	0	6
Sign Control		Free			Free			Stop				Stop

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

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	3
Future Volume (vph)	3
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	4	66	6	5	160	0	2	0	1	3	0	0	3
Future Vol, veh/h	4	66	6	5	160	0	2	0	1	3	0	0	3
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	0	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	72	7	5	174	0	2	0	1	3	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	179	0	0	89	0	0	285	283	91	0	278	286	184
Stage 1	-	-	-	-	-	-	94	94	-	0	189	189	-
Stage 2	-	-	-	-	-	-	191	189	-	0	89	97	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	-	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1397	-	-	1506	-	-	667	626	967	0	674	623	858
Stage 1	-	-	-	-	-	-	913	817	-	0	813	744	-
Stage 2	-	-	-	-	-	-	811	744	-	0	918	815	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1390	-	-	1492	-	-	652	612	953	0	663	609	850
Mov Cap-2 Maneuver	-	-	-	-	-	-	652	612	-	0	663	609	-
Stage 1	-	-	-	-	-	-	902	806	-	0	806	737	-
Stage 2	-	-	-	-	-	-	801	737	-	0	910	804	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	10	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	729	1390	-	-	1492	-	-	850
HCM Lane V/C Ratio	0.004	0.003	-	-	0.004	-	-	0.004
HCM Control Delay (s)	10	7.6	0	-	7.4	0	-	9.3
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

9: Main Street & Griffith Street
2045 Total PM

Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	94	48	238	39	1	35	144
Future Volume (vph)	94	48	238	39	1	35	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							
Frt	0.954		0.981				
Flt Protected	0.968						0.990
Satd. Flow (prot)	1720	0	1827	0	0	0	1844
Flt Permitted	0.968						0.990
Satd. Flow (perm)	1720	0	1827	0	0	0	1844
Link Speed (mph)	30		30				30
Link Distance (ft)	405		350				1210
Travel Time (s)	9.2		8.0				27.5
Confl. Peds. (#/hr)	2	10		7	10	7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	154	0	301	0	0	0	196
Sign Control	Stop		Free				Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 44.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	94	48	238	39	1	35	144
Future Vol, veh/h	94	48	238	39	1	35	144
Conflicting Peds, #/hr	2	10	0	7	10	7	0
Sign Control	Stop	Stop	Free	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	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	102	52	259	42	1	38	157

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	522	297	0	0	-	308	0
Stage 1	287	-	-	-	-	-	-
Stage 2	235	-	-	-	-	-	-
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	515	742	-	-	-	1253	-
Stage 1	762	-	-	-	-	-	-
Stage 2	804	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	510	730	-	-	~ -37	~ -37	-
Mov Cap-2 Maneuver	510	-	-	-	-	-	-
Stage 1	757	-	-	-	-	-	-
Stage 2	802	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	568	+	-
HCM Lane V/C Ratio	-	-	0.272	-	-
HCM Control Delay (s)	-	-	13.7	-	-
HCM Lane LOS	-	-	B	-	-
HCM 95th %tile Q(veh)	-	-	1.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

10: Front Street & Harper Street
2045 Total PM

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	0	7	0	0
Future Volume (vph)	6	0	0	7	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	8	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2045 Total PM

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	87	0	1400	1331	8
Future Volume (vph)	0	87	0	1400	1331	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	209			359	430	
Travel Time (s)	4.8			5.4	6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	95	0	1522	1456	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	87	0	1400	1331	8
Future Vol, veh/h	0	87	0	1400	1331	8
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	95	0	1522	1447	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	728	-	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	366	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	366	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	366	-	-
HCM Lane V/C Ratio	-	0.258	-	-
HCM Control Delay (s)	-	18.2	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1	-	-

1: Main Street & S Boulder Road
2045 Total SAT

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	1086	90	26	67	1025	59	107
Future Volume (vph)	1086	90	26	67	1025	59	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		120		225		0	115
Storage Lanes		1		1		1	1
Taper Length (ft)				25		0	
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Ped Bike Factor		0.97		1.00		0.99	0.95
Frt		0.850					0.850
Flt Protected				0.950		0.950	
Satd. Flow (prot)	3539	1583	0	1770	3539	1770	1583
Flt Permitted				0.190		0.950	
Satd. Flow (perm)	3539	1535	0	353	3539	1761	1504
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		97					116
Link Speed (mph)	35				35	30	
Link Distance (ft)	636				400	1210	
Travel Time (s)	12.4				7.8	27.5	
Confl. Peds. (#/hr)		5		5		5	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1180	98	0	101	1114	64	116
Turn Type	NA	Perm	custom	pm+pt	NA	Perm	Perm
Protected Phases	2			1	6		
Permitted Phases		2	1	6		8	8
Detector Phase	2	2	1	1	6	8	8
Switch Phase							
Minimum Initial (s)	35.0	35.0	5.0	5.0	35.0	5.0	5.0
Minimum Split (s)	41.0	41.0	11.0	11.0	41.0	35.0	35.0
Total Split (s)	70.0	70.0	12.0	12.0	82.0	18.0	18.0
Total Split (%)	70.0%	70.0%	12.0%	12.0%	82.0%	18.0%	18.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	72.0	72.0		82.0	82.0	10.0	9.0
Actuated g/C Ratio	0.72	0.72		0.82	0.82	0.10	0.09
v/c Ratio	0.46	0.09		0.25	0.38	0.36	0.48
Control Delay	7.5	1.5		3.2	3.3	47.0	15.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	7.5	1.5		3.2	3.3	47.0	15.0
LOS	A	A		A	A	D	B
Approach Delay	7.0				3.2	26.4	
Approach LOS	A				A	C	
Queue Length 50th (ft)	158	0		13	91	39	0

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	227	16		m19	m106	78	50
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2546	1132		409	2901	246	296
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.46	0.09		0.25	0.38	0.26	0.39

Intersection Summary	
Area Type: Other	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 59 (59%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 1: Main Street & S Boulder Road

2: Front Street/Private Access & S Boulder Road
2045 Total SAT

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	0	1209	30	3	16	1170	4	0	0	36	0	0
Future Volume (vph)	0	1209	30	3	16	1170	4	0	0	36	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50		70		0	0		0	0	
Storage Lanes	0		1		1		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850							0.865		
Flt Protected					0.950							
Satd. Flow (prot)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Flt Permitted					0.950							
Satd. Flow (perm)	0	3539	1583	0	1770	3539	0	0	0	1611	0	0
Link Speed (mph)		35				35			20			20
Link Distance (ft)		400				360			338			476
Travel Time (s)		7.8				7.0			11.5			16.2
Confl. Peds. (#/hr)	10		10	5	10		10	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1314	33	0	20	1276	0	0	0	39	0	0
Sign Control		Free				Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 45.0%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	0.865
Flt Protected	
Satd. Flow (prot)	1611
Flt Permitted	
Satd. Flow (perm)	1611
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	5
Peak Hour Factor	0.92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	0	1209	30	3	16	1170	4	0	0	36	0	0	1
Future Vol, veh/h	0	1209	30	3	16	1170	4	0	0	36	0	0	1
Conflicting Peds, #/hr	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	70	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1314	33	3	17	1272	4	0	0	39	0	0	1

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	-	0	0	1314	1357	0	0	-	-	672	-	-	653
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	208	503	-	-	0	0	398	0	0	410
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	396	396	-	-	-	-	392	-	-	404
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	15.2	13.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	392	-	-	396	-	-	404
HCM Lane V/C Ratio	0.1	-	-	0.052	-	-	0.003
HCM Control Delay (s)	15.2	-	-	14.6	-	-	13.9
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-	-	0

3: Cannon Circle/Private Access & S Boulder Road
2045 Total SAT

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	1156	27	1	52	1084	12	0	0	58	0
Future Volume (vph)	15	28	1156	27	1	52	1084	12	0	0	58	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		90		0		80		0	0		0	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.997				0.998				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3529	0	0	1770	3532	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3529	0	0	1770	3532	0	0	0	1611	0
Link Speed (mph)			35				35			20		
Link Distance (ft)			360				465			339		
Travel Time (s)			7.0				9.1			11.6		
Confl. Peds. (#/hr)	5	10		10	5	10		10	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	1286	0	0	58	1191	0	0	0	63	0
Sign Control			Free				Free			Stop		

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	82
Future Volume (vph)	0	82
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor		
Frt		0.865
Flt Protected		
Satd. Flow (prot)	0	1611
Flt Permitted		
Satd. Flow (perm)	0	1611
Link Speed (mph)	20	
Link Distance (ft)	431	
Travel Time (s)	14.7	
Confl. Peds. (#/hr)		5
Peak Hour Factor	0.92	0.92
Shared Lane Traffic (%)		
Lane Group Flow (vph)	0	89
Sign Control	Stop	

Intersection Summary

Intersection	
Int Delay, s/veh	1.4

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	15	28	1156	27	1	52	1084	12	0	0	58	0	0	82
Future Vol, veh/h	15	28	1156	27	1	52	1084	12	0	0	58	0	0	82
Conflicting Peds, #/hr	5	10	0	10	5	10	0	10	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	90	-	-	-	80	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	30	1257	29	1	57	1178	13	0	0	63	0	0	89

Major/Minor	Major1				Major2				Minor1		Minor2			
Conflicting Flow All	1191	1201	0	0	1286	1296	0	0	-	-	658	-	-	611
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	6.44	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	2.52	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	250	577	-	-	217	531	-	-	0	0	407	0	0	437
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	349	349	-	-	508	508	-	-	-	-	401	-	-	431
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.6	15.6	15.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	401	349	-	-	508	-	-	431
HCM Lane V/C Ratio	0.157	0.134	-	-	0.113	-	-	0.207
HCM Control Delay (s)	15.6	16.9	-	-	13	-	-	15.5
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.4	-	-	0.8

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	31	508	607	147	322	681	173	4	216	464	253	7
Future Volume (vph)	31	508	607	147	322	681	173	4	216	464	253	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150		100	225		270		0		0	
Storage Lanes		2		1	2		1		2		1	
Taper Length (ft)		25			25				25			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.97	0.95	1.00	0.95
Ped Bike Factor				0.98			0.98				0.98	
Frt				0.850			0.850				0.850	
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	0	3433	3539	1583	0
Flt Permitted		0.371			0.950				0.500			
Satd. Flow (perm)	0	1341	3539	1557	3433	3539	1549	0	1807	3539	1557	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)				207			218				275	
Link Speed (mph)			35			35				45		
Link Distance (ft)			465			1815				418		
Travel Time (s)			9.1			35.4				6.3		
Confl. Peds. (#/hr)				5			10				5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	586	660	160	350	740	188	0	239	504	275	0
Turn Type	custom	Prot	NA	Perm	Prot	NA	Perm	custom	Prot	NA	Perm	custom
Protected Phases		5	2		1	6			3	8		
Permitted Phases	5			2			6	3			8	7
Detector Phase	5	5	2	2	1	6	6	3	3	8	8	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	5.0	6.0	6.0	5.0
Minimum Split (s)	10.0	10.0	37.0	37.0	10.0	37.0	37.0	10.0	10.0	40.0	40.0	10.0
Total Split (s)	18.0	18.0	38.0	38.0	14.0	34.0	34.0	12.0	12.0	36.0	36.0	12.0
Total Split (%)	18.0%	18.0%	38.0%	38.0%	14.0%	34.0%	34.0%	12.0%	12.0%	36.0%	36.0%	12.0%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-1.0	-2.0	-2.0	-1.0	-2.0	-2.0		-1.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	C-Max	C-Max	None	Max	Max	None	None	Max	Max	None
Act Effct Green (s)		14.0	34.0	34.0	10.0	30.0	30.0		8.0	32.0	32.0	
Actuated g/C Ratio		0.14	0.34	0.34	0.10	0.30	0.30		0.08	0.32	0.32	
v/c Ratio		3.13	0.55	0.24	1.02	0.70	0.30		1.66	0.45	0.40	
Control Delay		990.3	26.2	2.6	99.5	35.2	3.7		356.1	25.0	7.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		990.3	26.2	2.6	99.5	35.2	3.7		356.1	25.0	7.3	
LOS		F	C	A	F	D	A		F	C	A	
Approach Delay			425.3			48.1				98.0		
Approach LOS			F			D				F		
Queue Length 50th (ft)		~344	127	0	~119	218	0		~116	134	1	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT

Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	140	506	341
Future Volume (vph)	140	506	341
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	185		270
Storage Lanes	2		1
Taper Length (ft)	25		
Lane Util. Factor	0.97	0.95	1.00
Ped Bike Factor			0.98
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.500		
Satd. Flow (perm)	1807	3539	1557
Right Turn on Red			Yes
Satd. Flow (RTOR)			251
Link Speed (mph)		45	
Link Distance (ft)		1337	
Travel Time (s)		20.3	
Confl. Peds. (#/hr)			5
Peak Hour Factor	0.92	0.92	0.92
Shared Lane Traffic (%)			
Lane Group Flow (vph)	160	550	371
Turn Type	Prot	NA	Perm
Protected Phases	7	4	
Permitted Phases			4
Detector Phase	7	4	4
Switch Phase			
Minimum Initial (s)	5.0	6.0	6.0
Minimum Split (s)	10.0	36.0	36.0
Total Split (s)	12.0	36.0	36.0
Total Split (%)	12.0%	36.0%	36.0%
Yellow Time (s)	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag
Lead-Lag Optimize?			
Recall Mode	None	Max	Max
Act Effct Green (s)	8.0	32.0	32.0
Actuated g/C Ratio	0.08	0.32	0.32
v/c Ratio	1.11	0.49	0.56
Control Delay	152.0	29.2	12.5
Queue Delay	0.0	0.0	0.0
Total Delay	152.0	29.2	12.5
LOS	F	C	B
Approach Delay		41.6	
Approach LOS		D	
Queue Length 50th (ft)	~60	147	56

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#441	177	21	#213	285	34		#201	129	85	
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150		100	225		270					
Base Capacity (vph)		187	1203	666	343	1061	617		144	1132	685	
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		3.13	0.55	0.24	1.02	0.70	0.30		1.66	0.45	0.40	

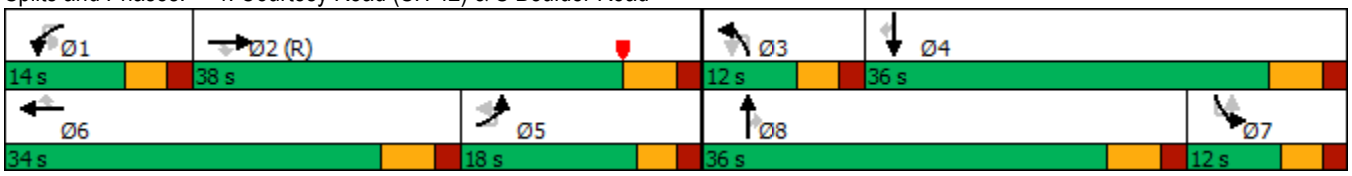
Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Yellow, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.13
Intersection Signal Delay: 168.2 Intersection LOS: F
Intersection Capacity Utilization 87.1% ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#126	198	146
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1132	668
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.11	0.49	0.56

Intersection Summary

5: Courtesy Road (SH 42) & Cannon Circle
2045 Total SAT

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	11	0	935	955	16
Future Volume (vph)	0	11	0	935	955	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	140			0
Storage Lanes	0	1	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3532	0
Link Speed (mph)	20			45	45	
Link Distance (ft)	418			420	418	
Travel Time (s)	14.3			6.4	6.3	
Confl. Peds. (#/hr)			5			5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	12	0	1016	1055	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 36.9%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	11	0	935	955	16
Future Vol, veh/h	0	11	0	935	955	16
Conflicting Peds, #/hr	0	0	5	0	0	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	12	0	1016	1038	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	533	-	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	491	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	489	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	489	-	-
HCM Lane V/C Ratio	-	0.024	-	-
HCM Control Delay (s)	-	12.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total SAT

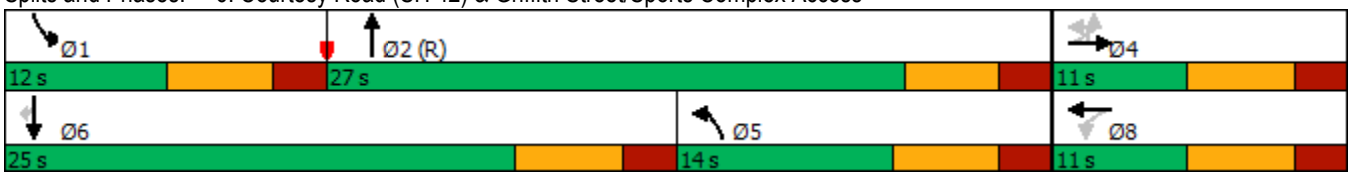
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	7	21	2	1	6	21	863	43	11	895	50
Future Volume (vph)	20	7	21	2	1	6	21	863	43	11	895	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	50		0	225		0	500		273
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor												0.98
Frt		0.889			0.869			0.993				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1656	0	1770	1619	0	1770	3514	0	1770	3539	1583
Flt Permitted	0.800			0.800			0.950			0.950		
Satd. Flow (perm)	1490	1656	0	1490	1619	0	1770	3514	0	1770	3539	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			7			13				196
Link Speed (mph)		30			20			45			45	
Link Distance (ft)		439			281			380			369	
Travel Time (s)		10.0			9.6			5.8			5.6	
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	31	0	2	8	0	23	985	0	12	973	54
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4		8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	4.0	4.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	25.0	25.0		25.0	25.0		11.0	24.5		11.0	25.0	25.0
Total Split (s)	11.0	11.0		11.0	11.0		14.0	27.0		12.0	25.0	25.0
Total Split (%)	22.0%	22.0%		22.0%	22.0%		28.0%	54.0%		24.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	3.5		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-2.0	-1.5		-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	Max	Max
Act Effct Green (s)	7.0	7.0		7.0	7.0		8.3	38.6		7.8	38.2	38.2
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.17	0.77		0.16	0.76	0.76
v/c Ratio	0.11	0.12		0.01	0.03		0.08	0.36		0.04	0.36	0.04
Control Delay	20.4	11.0		18.5	13.3		17.7	4.8		17.5	4.7	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.4	11.0		18.5	13.3		17.7	4.8		17.5	4.7	0.7
LOS	C	B		B	B		B	A		B	A	A
Approach Delay		14.9			14.3			5.1			4.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	6	3		1	0		6	44		5	116	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	17	15		5	9		20	153		m11	m171	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	208	251		208	232		354	2715		283	2704	1226
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	0.11	0.12		0.01	0.03		0.06	0.36		0.04	0.36	0.04

Intersection Summary	
Area Type: Other	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 48 (96%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 5.2	Intersection LOS: A
Intersection Capacity Utilization 39.7%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



7: Cannon Street & Griffith Street
2045 Total SAT

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	31	20	15	63	1	14	0	16	1	0	1
Future Volume (vph)	0	31	20	15	63	1	14	0	16	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	150		150	150		150
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.947			0.998			0.928			0.932	
Flt Protected					0.991			0.977			0.976	
Satd. Flow (prot)	0	1764	0	0	1842	0	0	1689	0	0	1694	0
Flt Permitted					0.991			0.977			0.976	
Satd. Flow (perm)	0	1764	0	0	1842	0	0	1689	0	0	1694	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		390			439			346			362	
Travel Time (s)		8.9			10.0			9.4			9.9	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	85	0	0	32	0	0	2	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 22.8%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	20	15	63	1	14	0	16	1	0	1
Future Vol, veh/h	0	31	20	15	63	1	14	0	16	1	0	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	22	16	68	1	15	0	17	1	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	61	0	0	156	156	55	165	167	79
Stage 1	-	-	-	-	-	-	50	50	-	106	106	-
Stage 2	-	-	-	-	-	-	106	106	-	59	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1542	-	-	810	736	1012	800	726	981
Stage 1	-	-	-	-	-	-	963	853	-	900	807	-
Stage 2	-	-	-	-	-	-	900	807	-	953	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1535	-	-	795	721	1002	772	711	972
Mov Cap-2 Maneuver	-	-	-	-	-	-	795	721	-	772	711	-
Stage 1	-	-	-	-	-	-	958	849	-	896	794	-
Stage 2	-	-	-	-	-	-	885	794	-	932	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	9.2	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	893	1519	-	-	1535	-	-	861
HCM Lane V/C Ratio	0.037	-	-	-	0.011	-	-	0.003
HCM Control Delay (s)	9.2	0	-	-	7.4	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

8: Griffith Street & Front Street
2045 Total SAT

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	53	3	1	74	3	8	0	0	0	0	4
Future Volume (vph)	6	53	3	1	74	3	8	0	0	0	0	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	150		150	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.995						0.865	
Flt Protected		0.995			0.999			0.950				
Satd. Flow (prot)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Flt Permitted		0.995			0.999			0.950				
Satd. Flow (perm)	0	1842	0	0	1852	0	0	1770	0	0	1611	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		405			390			333			365	
Travel Time (s)		9.2			8.9			9.1			10.0	
Confl. Peds. (#/hr)	5		10	10		5	5		5	5		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	84	0	0	9	0	0	4	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 23.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	53	3	1	74	3	8	0	0	0	0	4
Future Vol, veh/h	6	53	3	1	74	3	8	0	0	0	0	4
Conflicting Peds, #/hr	5	0	10	10	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	58	3	1	80	3	9	0	0	0	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	88	0	0	71	0	0	175	174	75	168	174	92
Stage 1	-	-	-	-	-	-	84	84	-	89	89	-
Stage 2	-	-	-	-	-	-	91	90	-	79	85	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1508	-	-	1529	-	-	788	719	986	796	719	965
Stage 1	-	-	-	-	-	-	924	825	-	918	821	-
Stage 2	-	-	-	-	-	-	916	820	-	930	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1501	-	-	1514	-	-	770	704	972	785	704	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	770	704	-	785	704	-
Stage 1	-	-	-	-	-	-	911	813	-	909	816	-
Stage 2	-	-	-	-	-	-	907	815	-	921	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	9.7	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	770	1501	-	-	1514	-	-	956
HCM Lane V/C Ratio	0.011	0.004	-	-	0.001	-	-	0.005
HCM Control Delay (s)	9.7	7.4	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

9: Main Street & Griffith Street
2045 Total SAT

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	63	27	144	46	14	138
Future Volume (vph)	63	27	144	46	14	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.960		0.967			
Flt Protected	0.966					0.995
Satd. Flow (prot)	1727	0	1801	0	0	1853
Flt Permitted	0.966					0.995
Satd. Flow (perm)	1727	0	1801	0	0	1853
Link Speed (mph)	30		30			30
Link Distance (ft)	405		350			1210
Travel Time (s)	9.2		8.0			27.5
Confl. Peds. (#/hr)	6	2		17	17	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	97	0	207	0	0	165
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	63	27	144	46	14	138
Future Vol, veh/h	63	27	144	46	14	138
Conflicting Peds, #/hr	6	2	0	17	17	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	29	157	50	15	150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	385	201	0	0	224	0
Stage 1	199	-	-	-	-	-
Stage 2	186	-	-	-	-	-
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	618	840	-	-	1345	-
Stage 1	835	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	597	825	-	-	1323	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	651	1323	-
HCM Lane V/C Ratio	-	-	0.15	0.012	-
HCM Control Delay (s)	-	-	11.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

10: Front Street & Harper Street
2045 Total SAT

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	0	9	0	0
Future Volume (vph)	4	0	0	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.865		
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	0	1611	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	0	1611	0	0
Link Speed (mph)	25		25			25
Link Distance (ft)	380		365			210
Travel Time (s)	10.4		10.0			5.7
Confl. Peds. (#/hr)	5	132		70	70	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	0	0
Sign Control	Free		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 16.5%	ICU Level of Service A
Analysis Period (min) 15	

11: Courtesy Road (SH 42) & Harper Street
2045 Total SAT

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	49	0	878	931	6
Future Volume (vph)	0	49	0	878	931	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1611	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	3539	3536	0
Link Speed (mph)	30			45	45	
Link Distance (ft)	201			369	420	
Travel Time (s)	4.6			5.6	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	53	0	954	1019	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	0	878	931	6
Future Vol, veh/h	0	49	0	878	931	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	53	0	954	1012	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	510	-	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	509	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	509	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

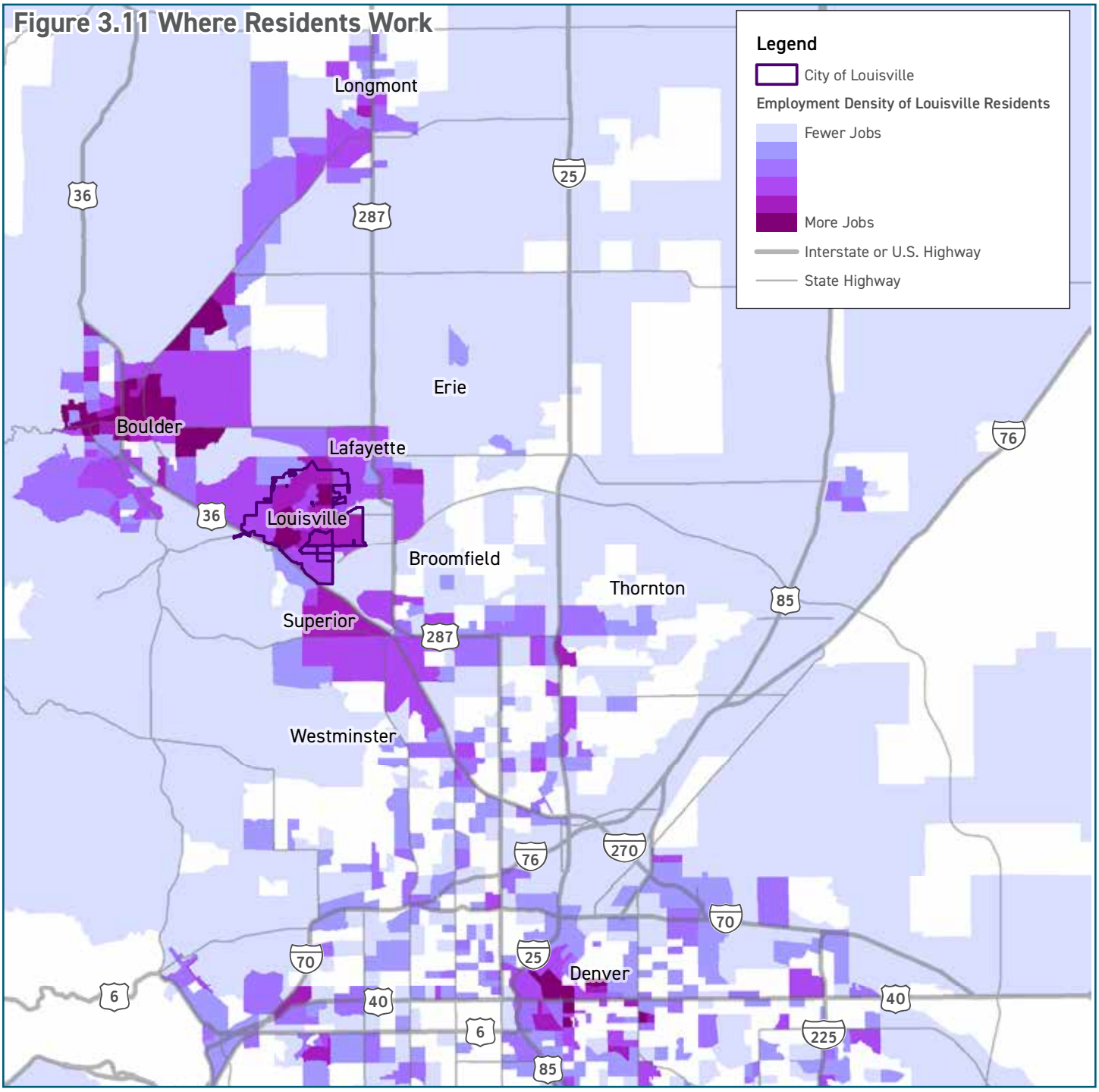
Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	509	-	-
HCM Lane V/C Ratio	-	0.105	-	-
HCM Control Delay (s)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Appendix M: Louisville TMP Pages

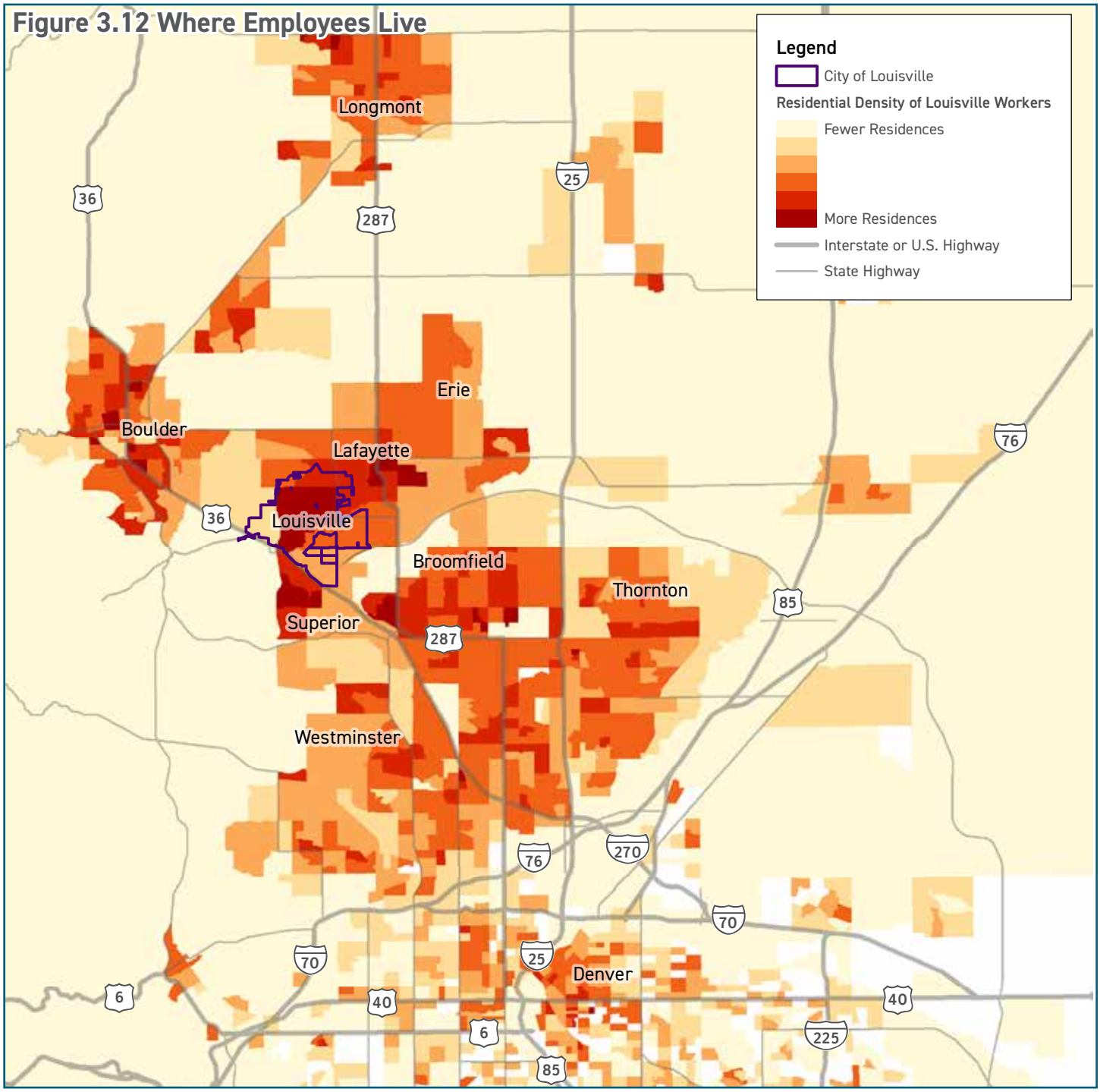
Where Louisville Residents Work

Figure 3.11 uses US Census data to show where Louisville residents work. Areas with a darker color have a larger density of residents working in that area. The majority of residents work within Boulder County, with a high number also working in Denver and lesser amounts spread throughout the north metro region. The highest areas of employment for Louisville residents are in the Cities of Boulder (28%) and Denver (14%). Approximately 89% of employed residents work outside of Louisville. This data helps identify key commuting corridors such as US 36, US 287, and Highway 119.



Where Louisville Employees Live

Figure 3.12 maps the location of where Louisville employees live. Only 7% of employees live in Louisville, while the rest live in cities across the region. Approximately 7% of workers live in each of the following: Denver, Broomfield, Boulder, and Westminster. Thornton and Lafayette account for another 6%, each. Strong regional corridors and connections allow Louisville to attract employees who live in other locations throughout the Denver region. Direct access via the Northwest Parkway, US 36, US 287, and Highway 7 provide key connections to Louisville. Approximately 93% of employees live outside of Louisville, adding stress on the transportation network from daily commuting.



HOW PEOPLE MOVE IN LOUISVILLE

This section uses Census data paired with transportation demand model (TDM) data from DRCOG to identify trip types and modes for travel occurring within Louisville.

Trips in Louisville

The TDM separates travel into two key types based on the origin and destination and are then divided into work-based and nonwork-based trips. The TDM is an activity based model that factors in all trips made between an origin and destination. For example, a trip that begins at home, stops for coffee, and goes to a school before traveling to work would ultimately be counted as a work-based trip. A trip that begins at home, goes to the gym, goes to the grocery store, then back home would be classified as a nonwork-based trip.

Currently, only 40.1% of all trips made within, to, or from Louisville are work related. This proportion is projected to generally stay the same (39.5%) over the next 20 years. This means a significant portion of trips occurring on the network are not related to commuting to work.

Transportation planning is often focused on the needs of commuting trips. To adequately plan for the functionality of the transportation system as a whole, however, it is important to address the variety of trip types and distances. Commuting trips are some of the longest trips that people make on a regular basis, and are therefore more likely to be completed by car than by walking or biking. Nonwork-based trips are typically much shorter. These shorter trips can be more strongly influenced by enhancing modal options, particularly walking and biking.

What is a Travel Demand Model?

The Denver Regional Council of Governments (DRCOG) develops a travel demand model (TDM) that estimates trip types, origins and destinations, modes, and trip lengths for all trips occurring in the region. This information is based on population, employment and development patterns, and multiple surveys estimate travel patterns. The TDM is a useful tool to help understand current and future demand and impacts on the transportation network.

Linking Trips and Land Use

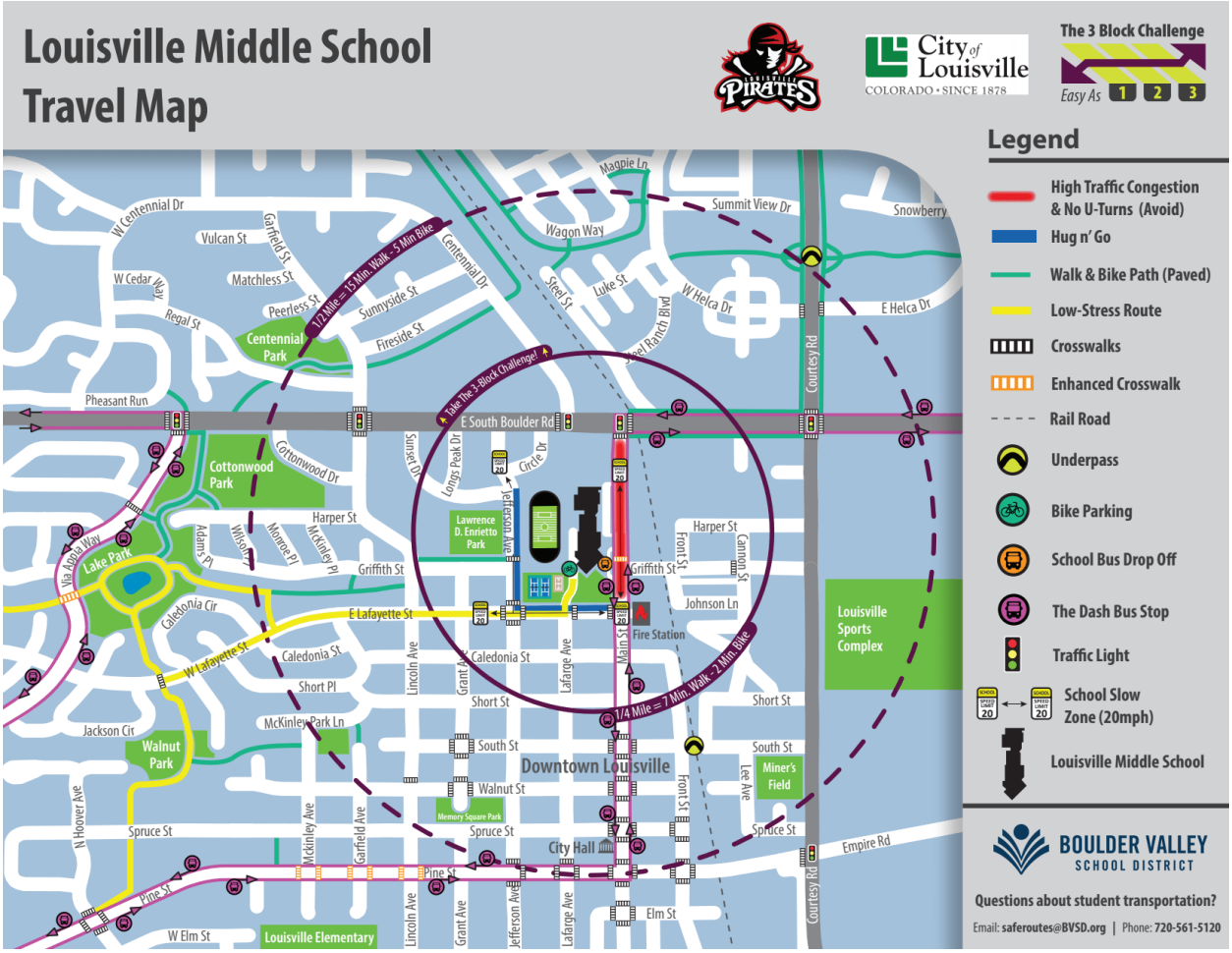
As housing costs continue to rise, more growth is occurring further out in the region, resulting in more, and longer commutes. This places additional stress on the transportation network leading to increased congestion. Allowing transit supportive development patterns and land uses, such as mixed use development at higher densities, can accommodate a variety of trips without the need for driving, therefore reducing stress on the transportation network. An example is the DELO development developed under the City's mixed use zoning standards.

Appendix N: Railroad Queue Calculations

Train Queue Calculations

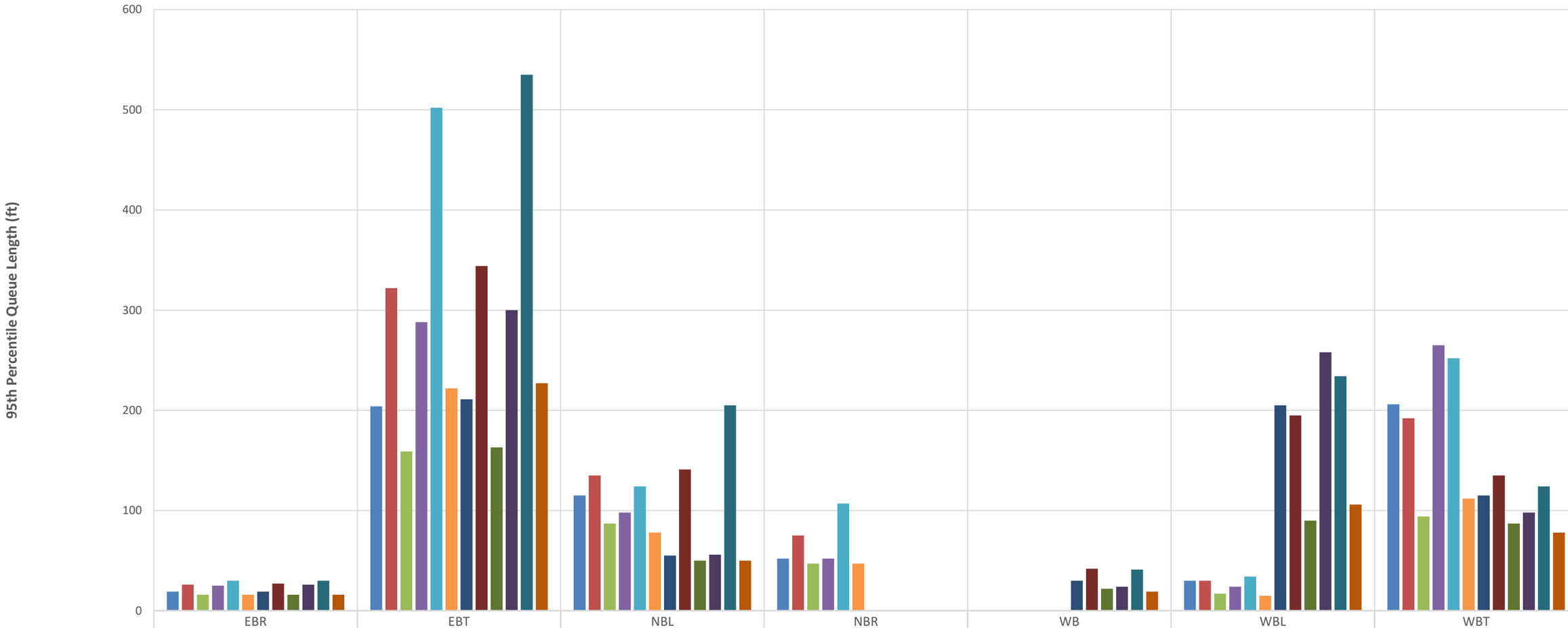
FullScenario	Int Dir	Volume (vph)	Train Delay (min)	Avg # of Vehicles per Train Event	(95th Percentile) Cumulative Poisson Distribution	(95th Percentile) Vehicles in Queue	(50th Percentile) Cumulative Poisson Distribution	(50th Percentile) Vehicles in Queue	(95th Percentile) Queue Length (ft.)	(50th Percentile) Queue Length (ft.)
Total 2026 AM	EB	82	3	4.1	0.976	**8**	0.609	**4**	200	100
Total 2026 PM	EB	78	3	3.9	0.955	**7**	0.648	**4**	175	100
Total 2026 SAT	EB	64	3	3.2	0.955	**6**	0.603	**3**	150	75
Total 2026 AM	WB	127	3	6.4	0.971	**11**	0.550	**6**	275	150
Total 2026 PM	WB	147	3	7.4	0.963	**12**	0.547	**7**	300	175
Total 2026 SAT	WB	99	3	5.0	0.970	**9**	0.625	**5**	225	125
Total 2026 AM	EB	82	5	6.8	0.954	**11**	0.624	**7**	275	175
Total 2026 PM	EB	78	5	6.5	0.966	**11**	0.527	**6**	275	150
Total 2026 SAT	EB	64	5	5.3	0.954	**9**	0.558	**5**	225	125
Total 2026 AM	WB	127	5	10.6	0.958	**16**	0.510	**10**	400	250
Total 2026 PM	WB	147	5	12.3	0.956	**18**	0.547	**12**	450	300
Total 2026 SAT	WB	99	5	8.3	0.958	**13**	0.558	**8**	325	200
Total 2045 AM	EB	81	3	4.1	0.977	**8**	0.619	**4**	200	100
Total 2045 PM	EB	74	3	3.7	0.965	**7**	0.687	**4**	175	100
Total 2045 SAT	EB	60	3	3.0	0.966	**6**	0.647	**3**	150	75
Total 2045 AM	WB	110	3	5.5	0.975	**10**	0.529	**5**	250	125
Total 2045 PM	WB	142	3	7.1	0.970	**12**	0.584	**7**	300	175
Total 2045 SAT	WB	90	3	4.5	0.960	**8**	0.532	**4**	200	100
Total 2045 AM	EB	81	5	6.8	0.957	**11**	0.636	**7**	275	175
Total 2045 PM	EB	74	5	6.2	0.950	**10**	0.580	**6**	250	150
Total 2045 SAT	EB	60	5	5.0	0.968	**9**	0.616	**5**	225	125
Total 2045 AM	WB	110	5	9.2	0.953	**14**	0.565	**9**	350	225
Total 2045 PM	WB	142	5	11.8	0.967	**18**	0.595	**12**	450	300
Total 2045 SAT	WB	90	5	7.5	0.957	**12**	0.525	**7**	300	175
Background 2026 AM	EB	82	3	4.1	0.976	**8**	0.609	**4**	200	100
Background 2026 PM	EB	78	3	3.9	0.955	**7**	0.648	**4**	175	100
Background 2026 SAT	EB	64	3	3.2	0.955	**6**	0.603	**3**	150	75
Background 2026 AM	WB	116	3	5.8	0.965	**10**	0.638	**6**	250	150
Background 2026 PM	WB	137	3	6.9	0.953	**11**	0.621	**7**	275	175
Background 2026 SAT	WB	93	3	4.7	0.952	**8**	0.504	**4**	200	100
Background 2026 AM	EB	82	5	6.8	0.954	**11**	0.624	**7**	275	175
Background 2026 PM	EB	78	5	6.5	0.966	**11**	0.527	**6**	275	150
Background 2026 SAT	EB	64	5	5.3	0.954	**9**	0.558	**5**	225	125
Background 2026 AM	WB	116	5	9.7	0.962	**15**	0.500	**9**	375	225
Background 2026 PM	WB	137	5	11.4	0.957	**17**	0.530	**11**	425	275
Background 2026 SAT	WB	93	5	7.8	0.973	**13**	0.627	**8**	325	200
Background 2045 AM	EB	81	3	4.1	0.977	**8**	0.619	**4**	200	100
Background 2045 PM	EB	74	3	3.7	0.965	**7**	0.687	**4**	175	100
Background 2045 SAT	EB	60	3	3.0	0.966	**6**	0.647	**3**	150	75
Background 2045 AM	WB	102	3	5.1	0.964	**9**	0.598	**5**	225	125
Background 2045 PM	WB	128	3	6.4	0.969	**11**	0.542	**6**	275	150
Background 2045 SAT	WB	84	3	4.2	0.972	**8**	0.590	**4**	200	100
Background 2045 AM	EB	81	5	6.8	0.957	**11**	0.636	**7**	275	175
Background 2045 PM	EB	74	5	6.2	0.950	**10**	0.580	**6**	250	150
Background 2045 SAT	EB	60	5	5.0	0.968	**9**	0.616	**5**	225	125
Background 2045 AM	WB	102	5	8.5	0.973	**14**	0.523	**8**	350	200
Background 2045 PM	WB	128	5	10.7	0.955	**16**	0.500	**10**	400	250
Background 2045 SAT	WB	84	5	7.0	0.973	**12**	0.599	**7**	300	175

Appendix O: Louisville Middle School Travel Map



Appendix P: Intersection Queues

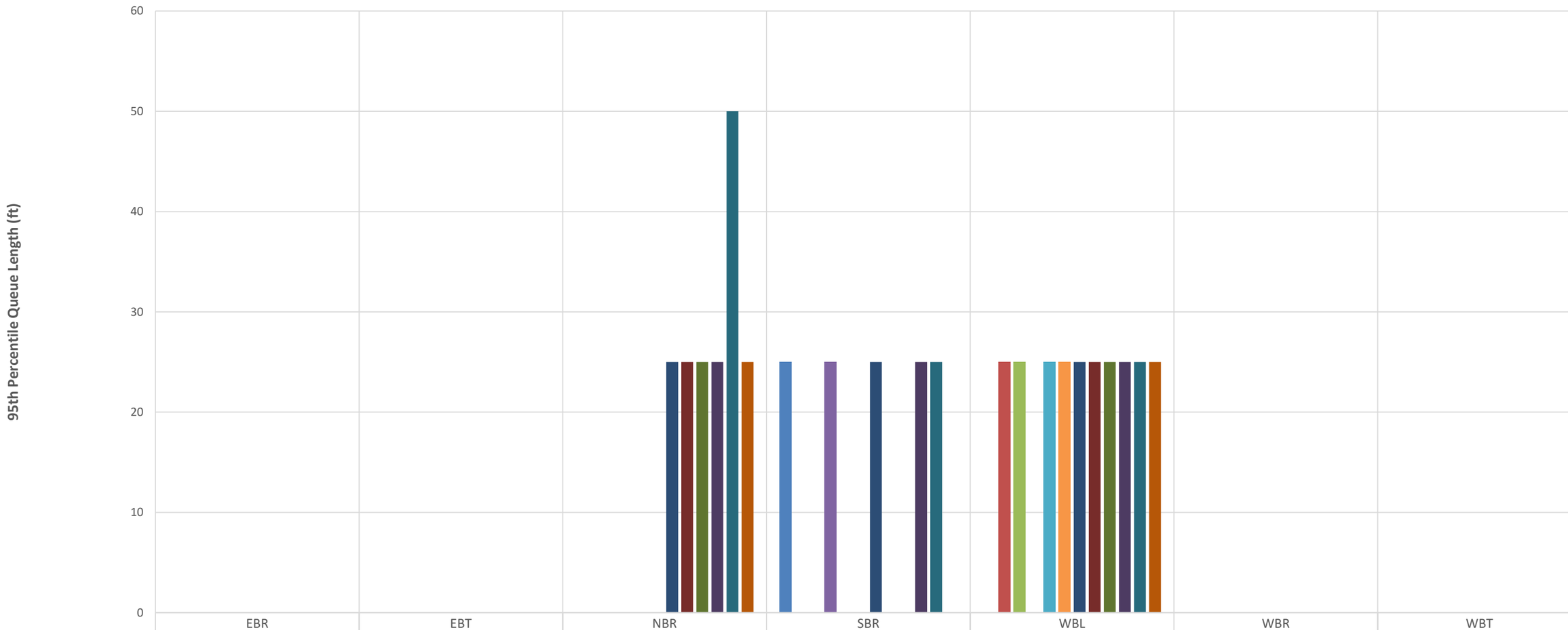
Queue Lengths - Intersection 1: Main Street & S Boulder Road



	EBR	EBT	NBL	NBR	WB	WBL	WBT
2026 Background AM	19	204	115	52	0	30	206
2026 Background PM	26	322	135	75	0	30	192
2026 Background SAT	16	159	87	47	0	17	94
2045 Background AM	25	288	98	52	0	24	265
2045 Background PM	30	502	124	107	0	34	252
2045 Background SAT	16	222	78	47	0	15	112
2026 Total AM	19	211	55	0	30	205	115
2026 Total PM	27	344	141	0	42	195	135
2026 Total SAT	16	163	50	0	22	90	87
2045 Total AM	26	300	56	0	24	258	98
2045 Total PM	30	535	205	0	41	234	124
2045 Total SAT	16	227	50	0	19	106	78

Movement

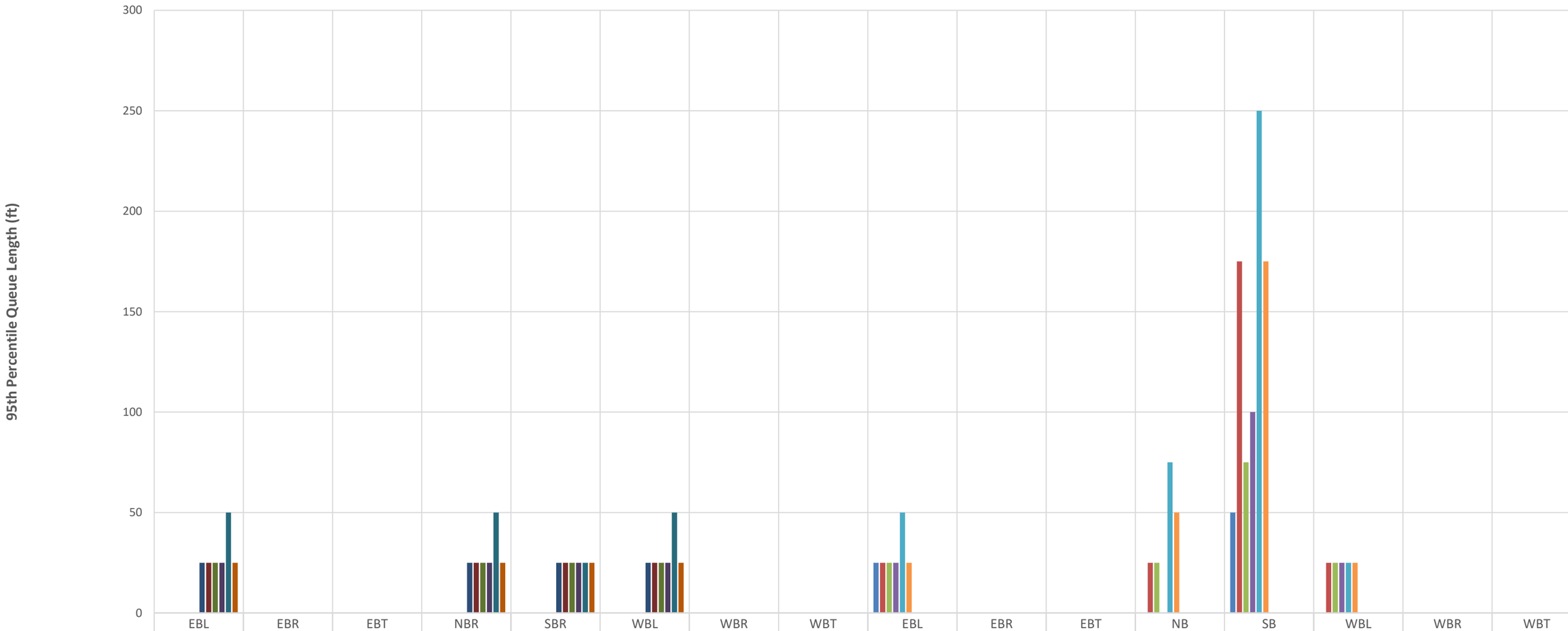
Queue Lengths - Intersection 2: Front Street/Private Access & S Boulder Road



	EBR	EBT	NBR	SBR	WBL	WBR	WBT
	3/4 Movement						
	Front Street/Private Access & S Boulder Road						
2026 Background AM	0	0	0	25	0	0	0
2026 Background PM	0	0	0	0	25	0	0
2026 Background SAT	0	0	0	0	25	0	0
2045 Background AM	0	0	0	25	0	0	0
2045 Background PM	0	0	0	0	25	0	0
2045 Background SAT	0	0	0	0	25	0	0
2026 Total AM	0	0	25	25	25	0	0
2026 Total PM	0	0	25	0	25	0	0
2026 Total SAT	0	0	25	0	25	0	0
2045 Total AM	0	0	25	25	25	0	0
2045 Total PM	0	0	50	25	25	0	0
2045 Total SAT	0	0	25	0	25	0	0

Movement

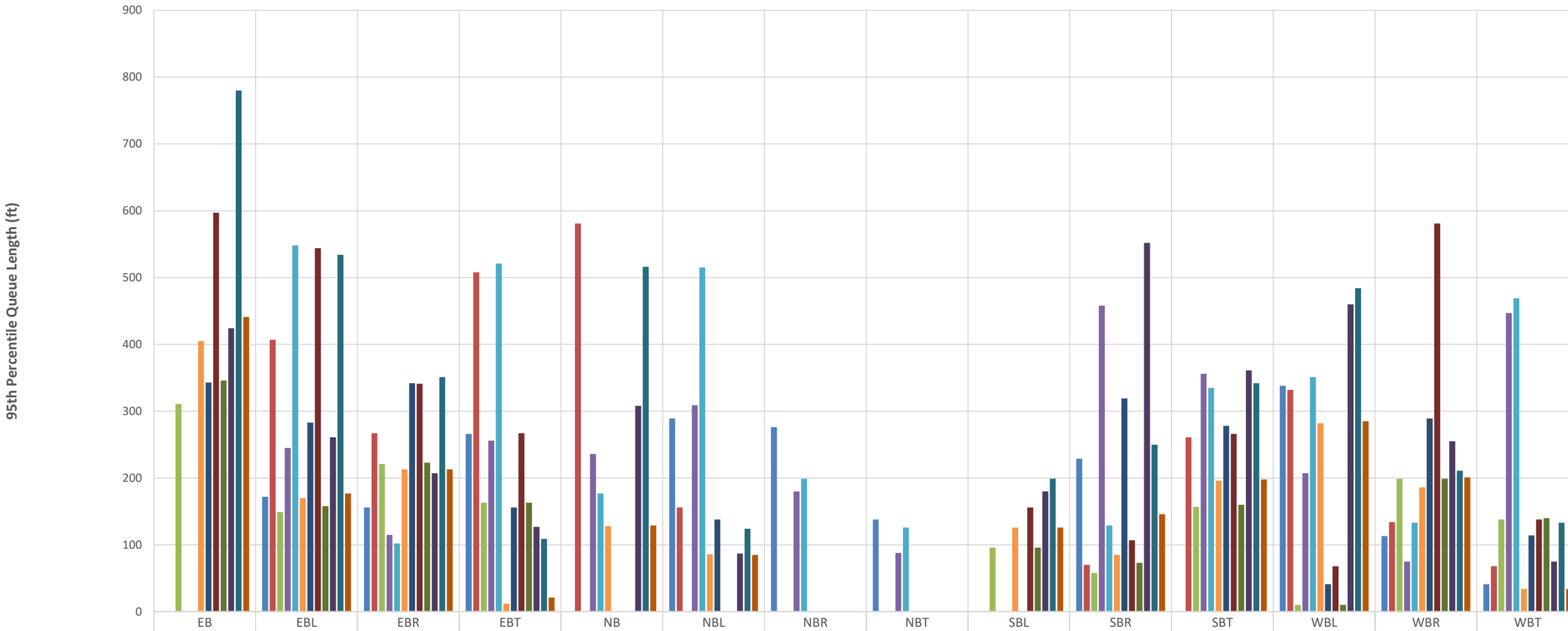
Queue Lengths - Intersection 3: Cannon Circle/Private Access & S Boulder Road



	EBL	EBR	EBT	NBR	SBR	WBL	WBR	WBT	EBL	EBR	EBT	NB	SB	WBL	WBR	WBT
2026 Background AM	0	0	0	0	0	0	0	0	25	0	0	0	50	0	0	0
2026 Background PM	0	0	0	0	0	0	0	0	25	0	0	25	175	25	0	0
2026 Background SAT	0	0	0	0	0	0	0	0	25	0	0	25	75	25	0	0
2045 Background AM	0	0	0	0	0	0	0	0	25	0	0	0	100	25	0	0
2045 Background PM	0	0	0	0	0	0	0	0	50	0	0	75	250	25	0	0
2045 Background SAT	0	0	0	0	0	0	0	0	25	0	0	50	175	25	0	0
2026 Total AM	25	0	0	25	25	25	0	0	0	0	0	0	0	0	0	0
2026 Total PM	25	0	0	25	25	25	0	0	0	0	0	0	0	0	0	0
2026 Total SAT	25	0	0	25	25	25	0	0	0	0	0	0	0	0	0	0
2045 Total AM	25	0	0	25	25	25	0	0	0	0	0	0	0	0	0	0
2045 Total PM	50	0	0	50	25	50	0	0	0	0	0	0	0	0	0	0
2045 Total SAT	25	0	0	25	25	25	0	0	0	0	0	0	0	0	0	0

Movement

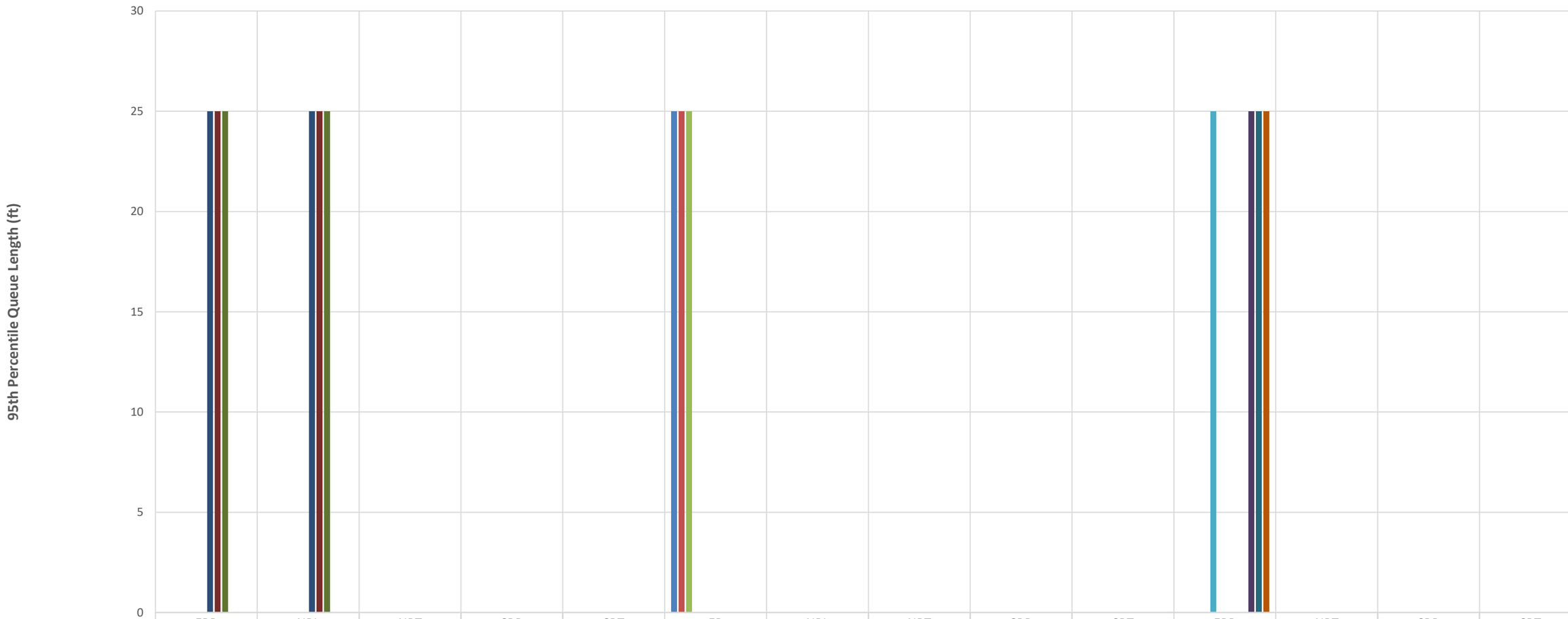
Queue Lengths - Intersection 4: Courtesy Road (SH 42) & S Boulder Road



	EB	EBL	EBR	EBT	NB	NBL	NBR	NBT	SBL	SBR	SBT	WBL	WBR	WBT
2026 Background AM	0	172	156	266	0	289	276	138	0	229	0	338	113	41
2026 Background PM	0	407	267	508	581	156	0	0	0	70	261	332	134	68
2026 Background SAT	311	149	221	163	0	0	0	0	96	58	157	10	199	138
2045 Background AM	0	245	115	256	236	309	180	88	0	458	356	207	75	447
2045 Background PM	0	548	102	521	177	515	199	126	0	129	335	351	133	469
2045 Background SAT	405	170	213	12	128	86	0	0	126	85	196	282	186	34
2026 Total AM	343	283	342	156	0	138	0	0	0	319	278	41	289	114
2026 Total PM	597	544	341	267	0	0	0	0	156	107	266	68	581	138
2026 Total SAT	346	158	223	163	0	0	0	0	96	73	160	10	199	140
2045 Total AM	424	261	207	127	308	87	0	0	180	552	361	460	255	75
2045 Total PM	780	534	351	109	516	124	0	0	199	250	342	484	211	133
2045 Total SAT	441	177	213	21	129	85	0	0	126	146	198	285	201	34

Movement

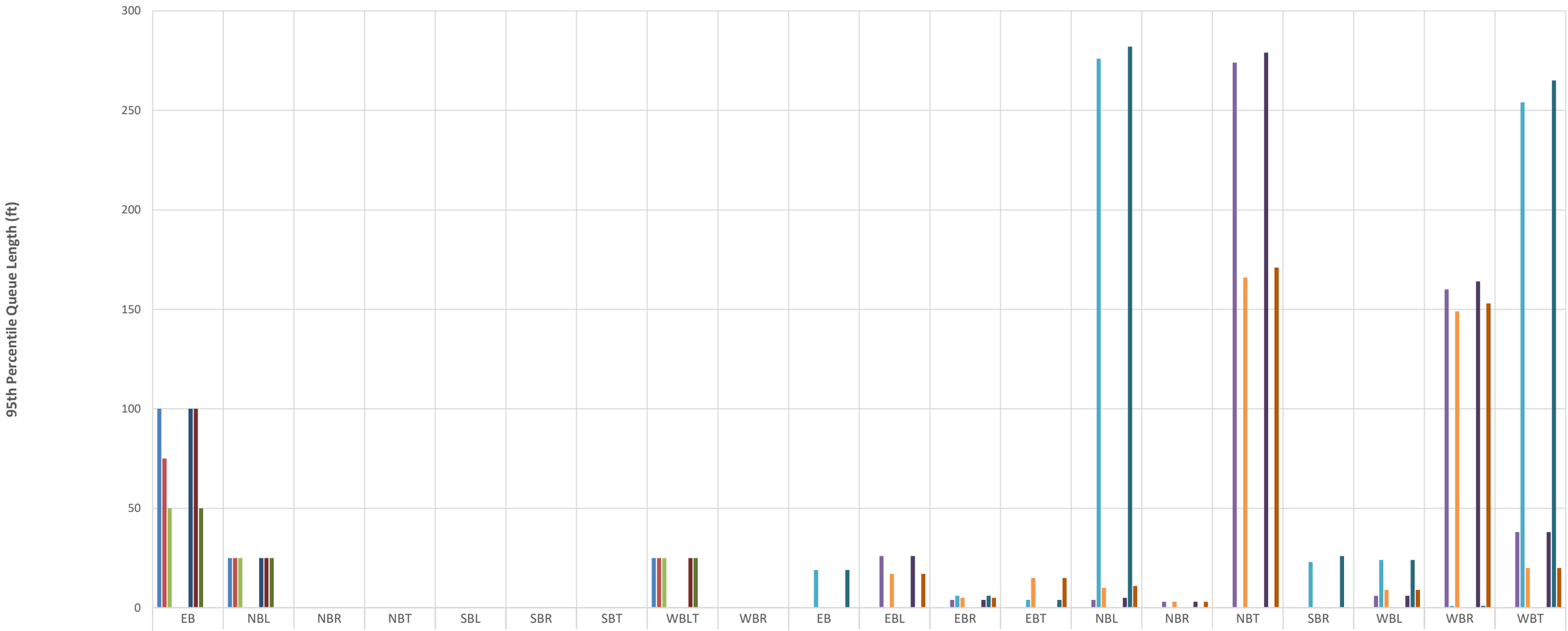
Queue Lengths - Intersection 5: Courtesy Road (SH 42) & Cannon Circle



	EBR	NBL	NBT	SBR	SBT	EB	NBL	NBT	SBR	SBT	EBR	NBT	SBR	SBT
	3/4 Movement					Full Movement					RIRO			
	Courtesy Road (SH 42) & Cannon Circle													
2026 Background AM	0	0	0	0	0	25	0	0	0	0	0	0	0	0
2026 Background PM	0	0	0	0	0	25	0	0	0	0	0	0	0	0
2026 Background SAT	0	0	0	0	0	25	0	0	0	0	0	0	0	0
2045 Background AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2045 Background PM	0	0	0	0	0	0	0	0	0	0	25	0	0	0
2045 Background SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Total AM	25	25	0	0	0	0	0	0	0	0	0	0	0	0
2026 Total PM	25	25	0	0	0	0	0	0	0	0	0	0	0	0
2026 Total SAT	25	25	0	0	0	0	0	0	0	0	0	0	0	0
2045 Total AM	0	0	0	0	0	0	0	0	0	0	25	0	0	0
2045 Total PM	0	0	0	0	0	0	0	0	0	0	25	0	0	0
2045 Total SAT	0	0	0	0	0	0	0	0	0	0	25	0	0	0

Movement

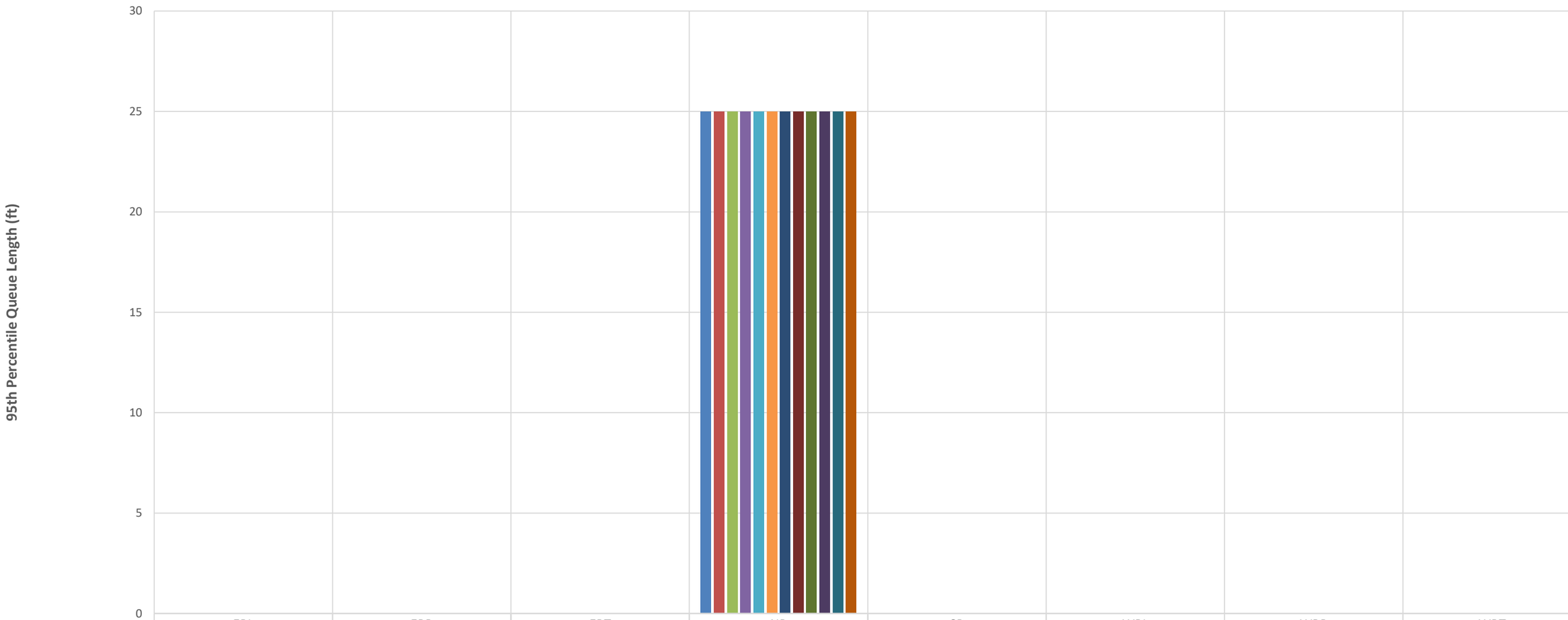
Queue Lengths - Intersection 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



	EB	NBL	NBR	NBT	SBL	SBR	SBT	WBLT	WBR	EB	EBL	EBR	EBT	NBL	NBR	NBT	SBR	WBL	WBR	WBT
2026 Background AM	100	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0
2026 Background PM	75	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0
2026 Background SAT	50	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0
2045 Background AM	0	0	0	0	0	0	0	0	0	0	26	4	0	4	3	274	0	6	160	38
2045 Background PM	0	0	0	0	0	0	0	0	0	19	0	6	4	276	0	0	23	24	1	254
2045 Background SAT	0	0	0	0	0	0	0	0	0	0	17	5	15	10	3	166	0	9	149	20
2026 Total AM	100	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2026 Total PM	100	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0
2026 Total SAT	50	25	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0
2045 Total AM	0	0	0	0	0	0	0	0	0	0	26	4	0	5	3	279	0	6	164	38
2045 Total PM	0	0	0	0	0	0	0	0	0	19	0	6	4	282	0	0	26	24	1	265
2045 Total SAT	0	0	0	0	0	0	0	0	0	0	17	5	15	11	3	171	0	9	153	20

Movement

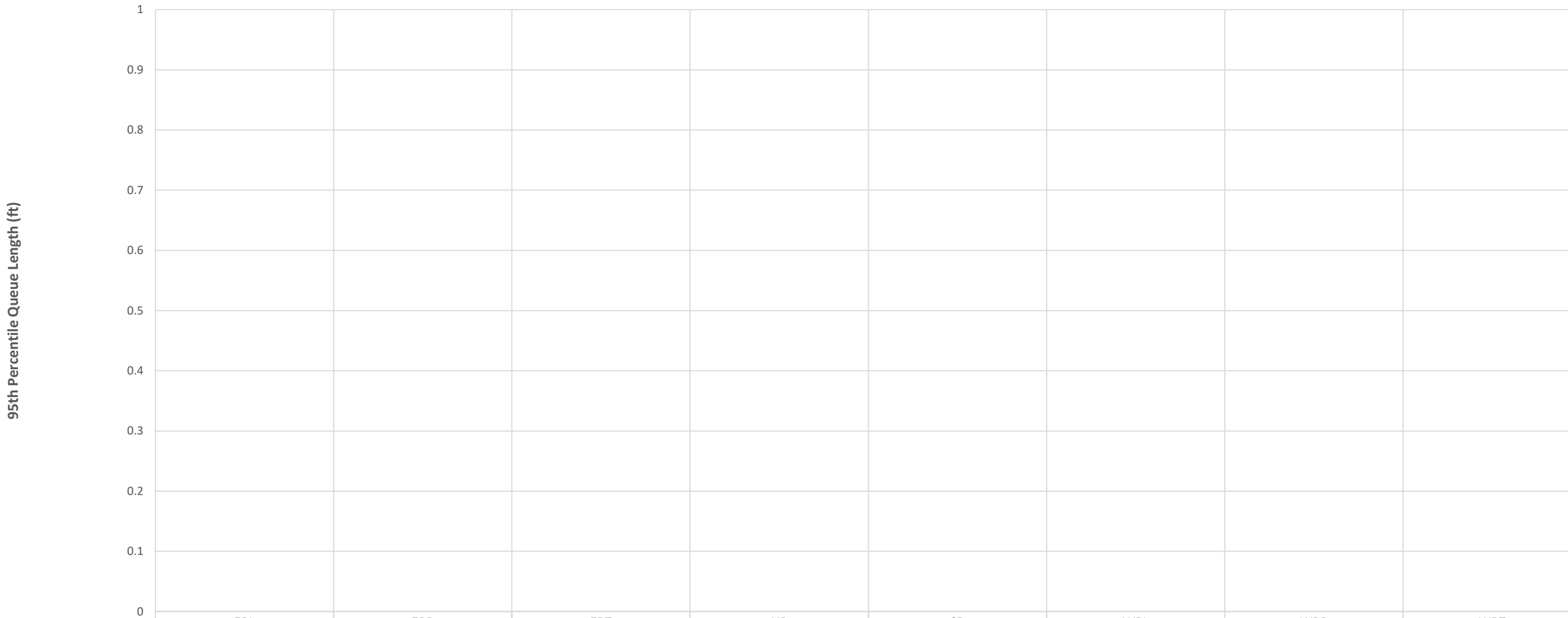
Queue Lengths - Intersection 7: Cannon Street & Griffith Street



	EBL	EBR	EBT	NB	SB	WBL	WBR	WBT
	Full Movement Cannon Street & Griffith Street							
2026 Background AM	0	0	0	25	0	0	0	0
2026 Background PM	0	0	0	25	0	0	0	0
2026 Background SAT	0	0	0	25	0	0	0	0
2045 Background AM	0	0	0	25	0	0	0	0
2045 Background PM	0	0	0	25	0	0	0	0
2045 Background SAT	0	0	0	25	0	0	0	0
2026 Total AM	0	0	0	25	0	0	0	0
2026 Total PM	0	0	0	25	0	0	0	0
2026 Total SAT	0	0	0	25	0	0	0	0
2045 Total AM	0	0	0	25	0	0	0	0
2045 Total PM	0	0	0	25	0	0	0	0
2045 Total SAT	0	0	0	25	0	0	0	0

Movement

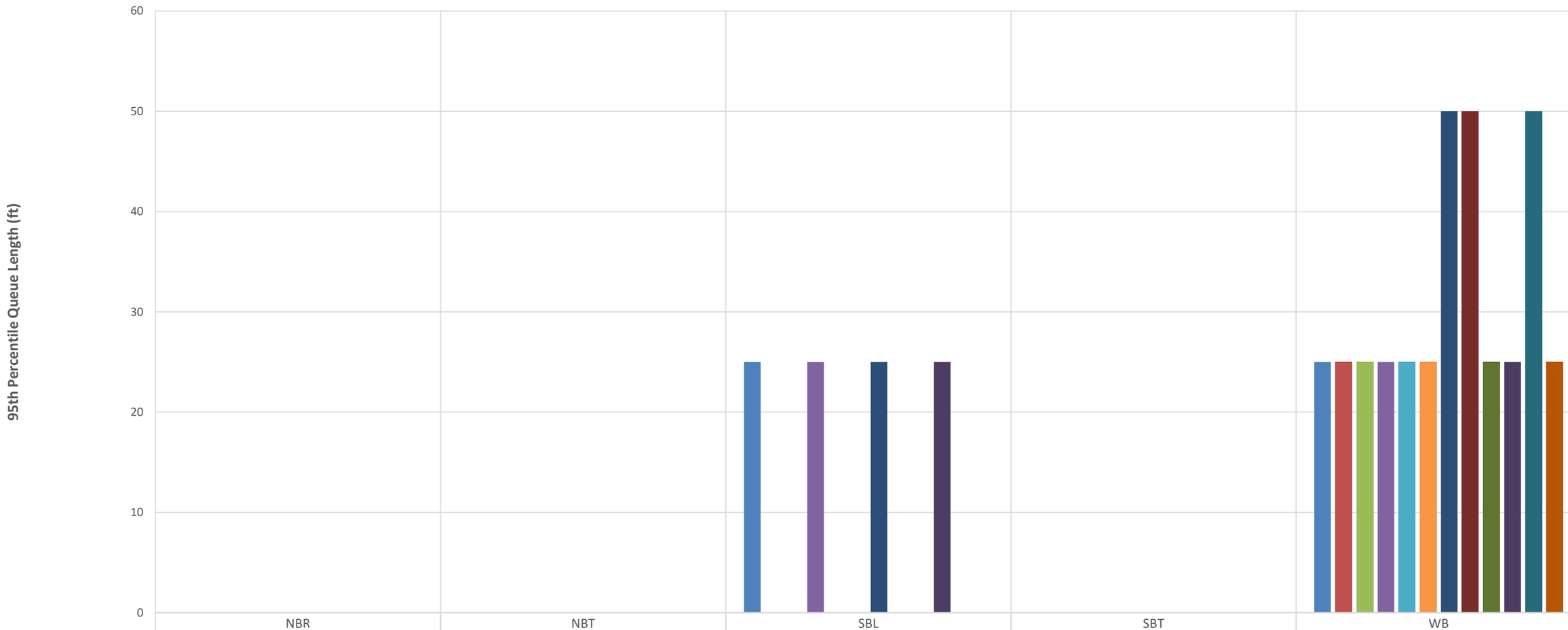
Queue Lengths - Intersection 8: Griffith Street & Front Street



	EBL	EBR	EBT	NB	SB	WBL	WBR	WBT
	Full Movement Griffith Street & Front Street							
2026 Background AM	0	0	0	0	0	0	0	0
2026 Background PM	0	0	0	0	0	0	0	0
2026 Background SAT	0	0	0	0	0	0	0	0
2045 Background AM	0	0	0	0	0	0	0	0
2045 Background PM	0	0	0	0	0	0	0	0
2045 Background SAT	0	0	0	0	0	0	0	0
2026 Total AM	0	0	0	0	0	0	0	0
2026 Total PM	0	0	0	0	0	0	0	0
2026 Total SAT	0	0	0	0	0	0	0	0
2045 Total AM	0	0	0	0	0	0	0	0
2045 Total PM	0	0	0	0	0	0	0	0
2045 Total SAT	0	0	0	0	0	0	0	0

Movement

Queue Lengths - Intersection 9: Main Street & Griffith Street

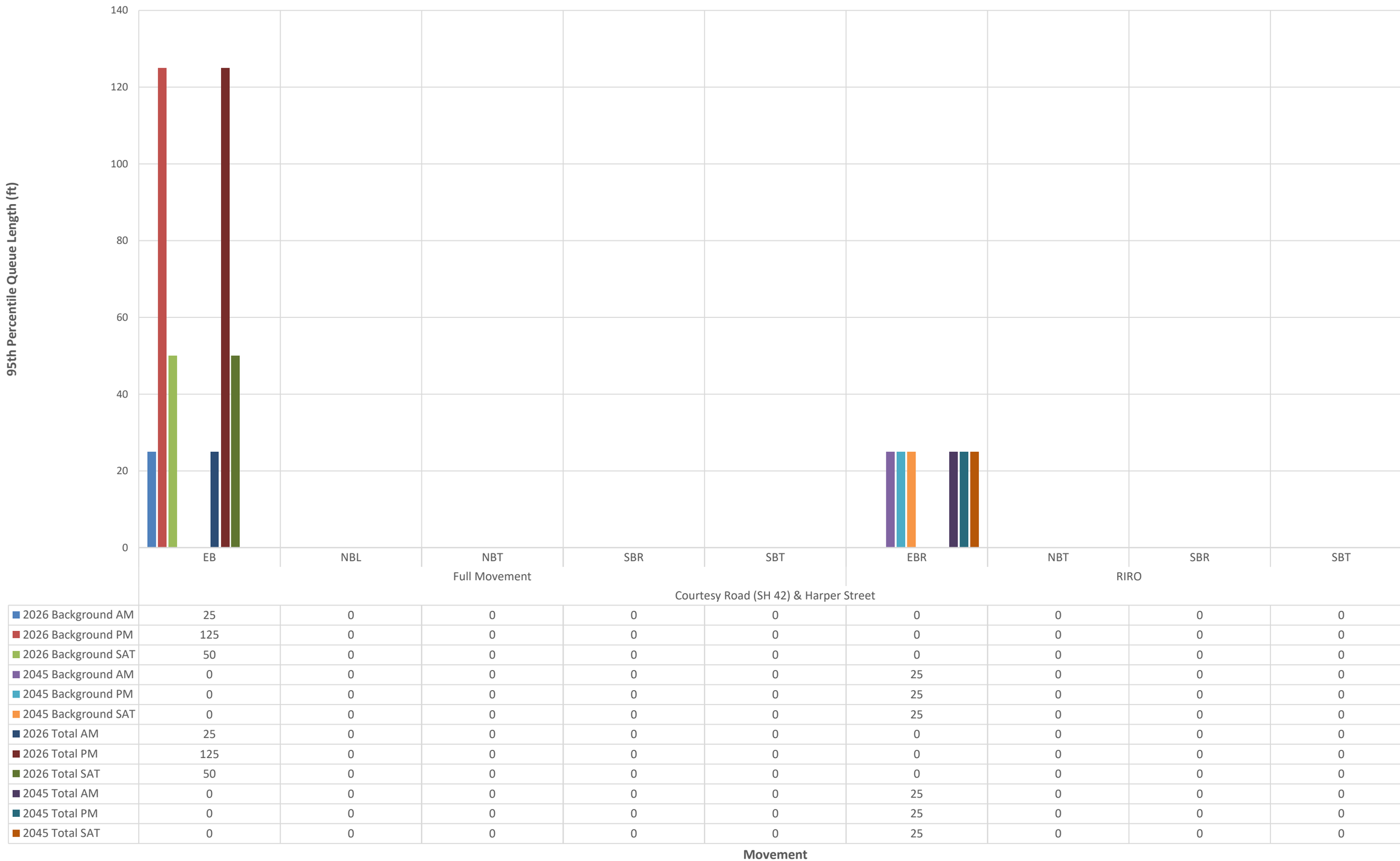


	NBR	NBT	SBL	SBT	WB
2026 Background AM	0	0	25	0	25
2026 Background PM	0	0	0	0	25
2026 Background SAT	0	0	0	0	25
2045 Background AM	0	0	25	0	25
2045 Background PM	0	0	0	0	25
2045 Background SAT	0	0	0	0	25
2026 Total AM	0	0	25	0	50
2026 Total PM	0	0	0	0	50
2026 Total SAT	0	0	0	0	25
2045 Total AM	0	0	25	0	25
2045 Total PM	0	0	0	0	50
2045 Total SAT	0	0	0	0	25

Movement

Queue Lengths - Intersection 10: Front Street & Harper Street

Queue Lengths - Intersection 11: Courtesy Road (SH 42) & Harper Street



	EB	NBL	NBT	SBR	SBT	EBR	NBT	SBR	SBT
2026 Background AM	25	0	0	0	0	0	0	0	0
2026 Background PM	125	0	0	0	0	0	0	0	0
2026 Background SAT	50	0	0	0	0	0	0	0	0
2045 Background AM	0	0	0	0	0	25	0	0	0
2045 Background PM	0	0	0	0	0	25	0	0	0
2045 Background SAT	0	0	0	0	0	25	0	0	0
2026 Total AM	25	0	0	0	0	0	0	0	0
2026 Total PM	125	0	0	0	0	0	0	0	0
2026 Total SAT	50	0	0	0	0	0	0	0	0
2045 Total AM	0	0	0	0	0	25	0	0	0
2045 Total PM	0	0	0	0	0	25	0	0	0
2045 Total SAT	0	0	0	0	0	25	0	0	0