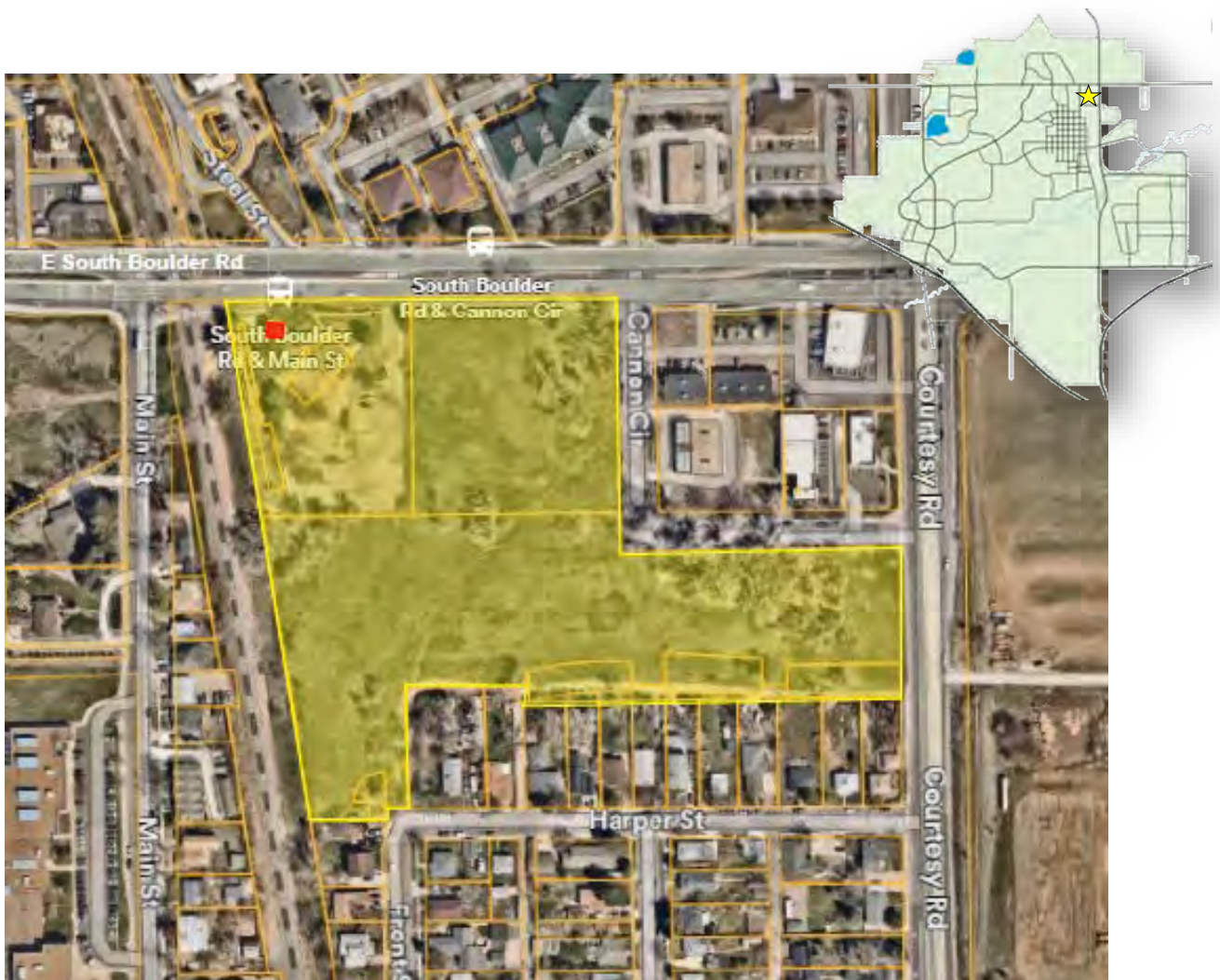


SUBJECT: ORDINANCE NO. 1910, SERIES 2025 – AN ORDINANCE APPROVING A REZONING OF A PORTION OF THE CALEDONIA PLACE SUBDIVISION PLAT FROM COMMERCIAL COMMUNITY (C-C) AND RESIDENTIAL MEDIUM DENSITY (R-M) TO MIXED-USE RESIDENTIAL (MU-R) AND APPROVING AN AMENDMENT TO EXHIBIT A, LAND USE PLAN EXHIBIT, REFERENCED IN LOUISVILLE MUNICIPAL CODE CHAPTER 17.14 – MIXED USE ZONE DISTRICTS – 1ST READING, SET PUBLIC HEARING

DATE: NOVEMBER 18, 2025

PREPARED BY: MATT POST, AICP, SENIOR PLANNER

PRESENTED BY: MATT POST, AICP, SENIOR PLANNER



SUMMARY:

The applicant, Ripley Design Inc., is requesting a rezoning of a portion of the property from the CC-MU (Commercial Community – Mixed Use) and R-M (Residential Medium Density) zoning districts to the MU-R (Residential Mixed Use) zoning district. The MU-R district permits a combination of residential and non-residential uses, including townhomes and apartments up to a maximum gross density of 20 dwelling units per acre, and requires properties over five acres in size to incorporate at least two distinct principal uses.

To implement the proposed rezoning, the applicant must also amend the Land Use Plan, Exhibit A, referenced in Louisville Municipal Code Chapter 17.14 (Mixed-Use Zone Districts). The existing Land Use Plan designates the property as CC-Mixed Use, R-M, and Park, and would be updated to classify the entire property as MU-R to align with the requested zoning change.

This First Reading staff report provides analysis and a recommendation on the proposed rezoning and Land Use Map amendment. It also includes the proposal and analysis for the associated Preliminary Planned Unit Development (PUD), Preliminary Plat, and Special Review Use (SRU) applications, which collectively enable future development of the property with an approved rezoning. Rezoning and zoning map amendments, which require adoption by ordinance, are considered by City Council at a first and second reading, with the second reading serving as the public hearing. This report is intended to serve as the First Reading for the rezone and Land Use Map amendment application. For clarity and continuity, the Preliminary PUD, Preliminary Plat, and SRU proposal and analysis are included within this staff report, as all applications have been reviewed simultaneously, and consideration will occur concurrently. With approval of this first reading, City Council will set the public hearing for January 6, 2026, at which time the second reading of the ordinance and consideration of all applications will occur.

BACKGROUND / PRIOR DISCUSSIONS:

The property is located in the Highway 42 Revitalization Area. In 2003, the City adopted the [Highway 42 Revitalization Area Framework Plan](#) and the [Highway 42 Revitalization Area Comprehensive Plan Amendment](#). In order to implement these adopted plans the City created a [Mixed Use Overlay District \(Zoning Chapter 17.14\)](#) and the [Mixed Use Development Design Standards and Guidelines \(MUDDSG\)](#), which govern development of properties within the Mixed Use district.

The Urban Renewal Plan for the Highway 42 Urban Renewal Area was later adopted by the City and the Louisville Revitalization Commission to address blight, encourage reinvestment, and guide appropriate land uses consistent with community objectives.

In accordance with LMC Sec. 17.14.020, properties within the Revitalization Area must be rezoned consistent with the adopted Land Use Plan when developed or redeveloped. In 2013, City Council approved Ordinance No. 1641-2013, rezoning the subject property from Commercial Business (CB) to Mixed-Use Residential (MU-R), Commercial Community

(CC), and Residential Medium Density (R-M) concurrent with approval of a Preliminary PUD and Plat.

A Final PUD and Plat, known as Coal Creek Station, was subsequently approved in 2016 to allow 51 residential units and 29,472 square feet of commercial space. However, the Final PUD and Plat were never executed, and eligibility for permit issuance expired on May 17, 2019.

Planning Commission Review of Current Application

This application was reviewed by the Planning Commission at three separate meetings held in 2024 and 2025 ([September 12, 2024](#), [October 10, 2024](#), and [October 9, 2025](#)) during which staff presented findings, public comment was received, and the Commission deliberated on the proposal. At the October 10, 2024, hearing, the Commission directed that an updated Traffic Impact Study (TIS) be prepared to address additional considerations and provide a more comprehensive evaluation of the project's impacts, including a rezone for portions of the subject property.

Following that action, staff met with the applicant to establish the scope for the revised TIS. The study was then prepared by the applicant, submitted, and reviewed in accordance with the agreed scope, incorporating updated traffic counts and expanded analyses requested by the Planning Commission. The revised scope included:

- Analysis of traffic impacts with and without the proposed Front Street connection.
- Incorporation of traffic projections from the Delo Boom development, a mixed-use project proposed and currently under review south of the subject property.
- Inclusion of six additional intersections in the study area - Main Street/South Boulder Road, Main Street/Griffith Street, Front Street/Griffith Street, Cannon Street/Griffith Street, SH 42/Griffith Street, and SH 42/Harper Street.
- Evaluation of the Cannon Circle/South Boulder Road intersection as a potential $\frac{3}{4}$ movement configuration.
- Updated, objective directional distribution assumptions.
- Application of a 1,000 vehicle-per-day (vpd) threshold for local street capacity (Front Street only) based on neighborhood livability considerations rather than maximum roadway capacity.

The revised TIS (Attachment 6) evaluated existing and projected traffic conditions for 2026 and 2045, with and without the proposed connection of Front Street between South

Boulder Road and Griffith Street. The new study assumed the same development intensity as the last study. New traffic counts were collected during weekday morning and evening peak hours in November 2024 and during the Saturday mid-day peak in November 2022 under normal conditions, updating and replacing the previous 2020 and 2022 volumes.

The development is projected to generate approximately 1,839 daily vehicle trips through four (4) access points around the site, with 220 AM peak hour (7:00AM – 9:00AM) trips and 244 PM peak hour (4:00pm – 6:00PM) trips.

The revised TIS evaluated the Front Street connection using a 1,000 vpd threshold, which is generally recognized by most jurisdictions as the most conservative standard for local residential street classification. The City's [2013 Comprehensive Plan](#) identifies local streets carrying more than 1,000 vpd as candidates for traffic-calming measures (p. 41), but not for reclassification. The TIS projects traffic volumes on Front Street below the 1,000 vpd threshold (p.66). However, in response to community concerns regarding the connection, the applicant has agreed to proactively install traffic-calming measures along Front Street and at the Front Street/Harper Street intersection (Attachment 7).

The results of the revised TIS indicate that the Front Street connection is necessary for maintaining circulation and safe vehicular operations. The site fronts South Boulder Road, where turning movements are restricted due to heavy through volumes. Without the connection, eastbound U-turn volumes on South Boulder Road are projected to increase by 40–85% in the long term, requiring weaving movements across multiple lanes within a limited distance of the signalized intersection, which present unacceptable safety risks. The revised TIS and City staff both recommend construction of the Front Street connection, which would provide transportation redundancy, support a safer gridded street system consistent with prior planning efforts, implement adopted plan policies, and distribute traffic more evenly across the network.

At the October 9, 2025, hearing, the Planning Commission recommended approval with conditions as recommended by staff, adding in an **additional condition that the Front Street connection at Harper Street be open to emergency access only**, including pedestrians and bicycles. This condition is tied to the Preliminary PUD and is not a consideration of the rezoning and Land Use Map amendment application.

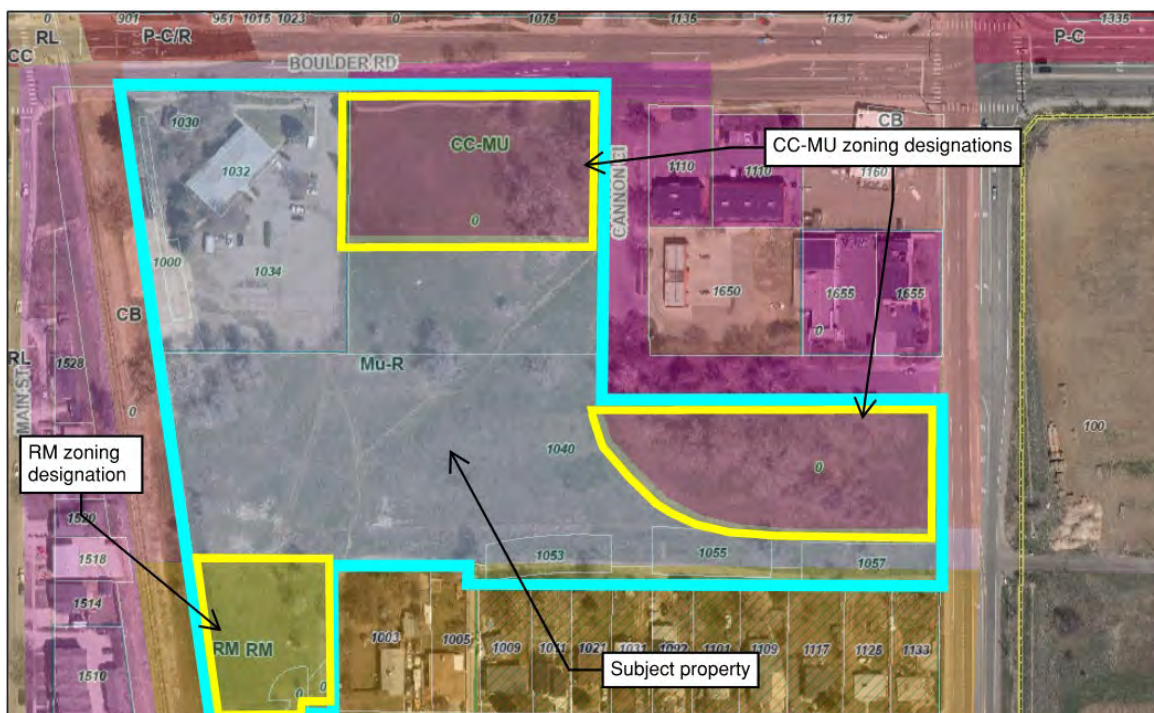
DEVELOPMENT PROPOSAL:

Rezoning

The current zoning designation of CC-MU on the north and east sides of the site prohibits residential uses. The applicant is requesting to rezone the portions of the property zoned CC-MU and RM to MU-R to allow for a mix of uses and housing types. This is a discretionary request from the applicant as the mandatory rezone requirement for redevelopment of the subject property was satisfied with the approved 2013 rezoning.

In the narrative provided, the applicant asserts that the proposed rezoning will support the City's goals as outlined in the Highway 42 Revitalization Area Framework Plan, the City of Louisville Housing Plan, and the MUDDSG by developing a variety of housing types while providing additional commercial space along South Boulder Road. The applicant notes that the area has changed since the initial rezoning, and that the current CC-MU zoning is commercially focused and does not support needed housing in the community.

The applicant provided an updated market analysis by CBRE (Attachment 5), indicating that both retail and office sectors in Metro Denver remain challenged, with limited support for speculative new development. Retail conditions are stable but stagnant with modest new completions, and demand focused on smaller pad users such as gas/convenience, quick-service restaurants, and financial services, while larger-format tenants remain scarce. The office market faces even greater headwinds, with vacancy at 27.4%, and new construction at historic lows as conversions and demolitions outpace new projects. These trends suggest that large-scale retail and office development are not viable under current conditions, and that smaller-scale retail paired with residential and mixed-use development represents the most feasible path forward.

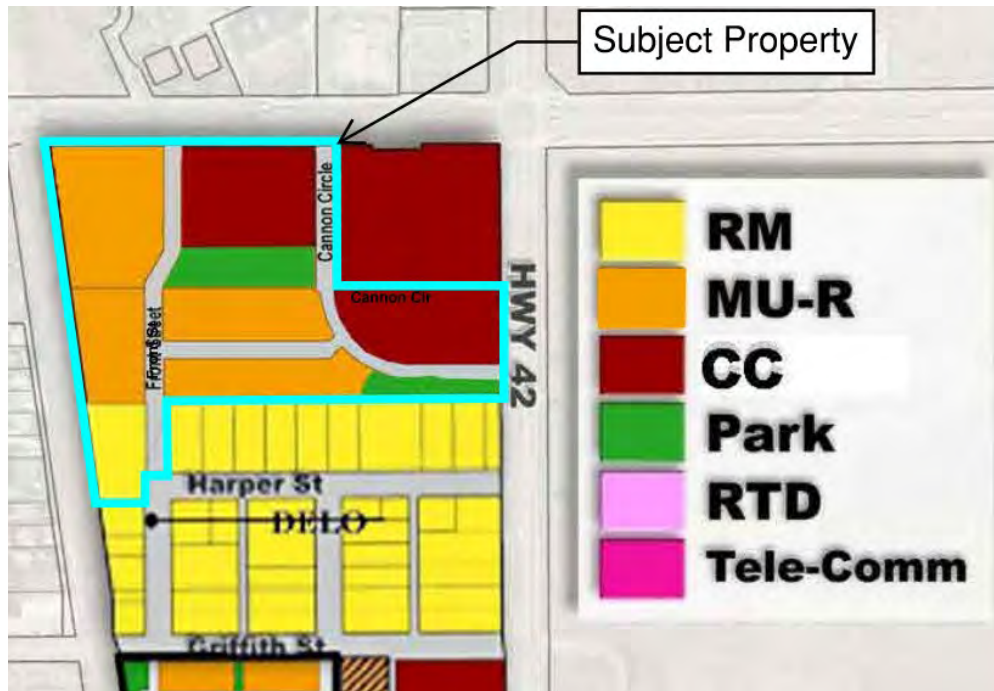


Zoning Map

Land Use Plan Amendment

The rezoning request necessitates an update to the Land Use Plan, Exhibit A, to reflect the new zoning district designations and the proposed street connections. Presently, the

existing zoning designations are consistent with those outlined in the current Land Use Plan.



Preliminary Plat

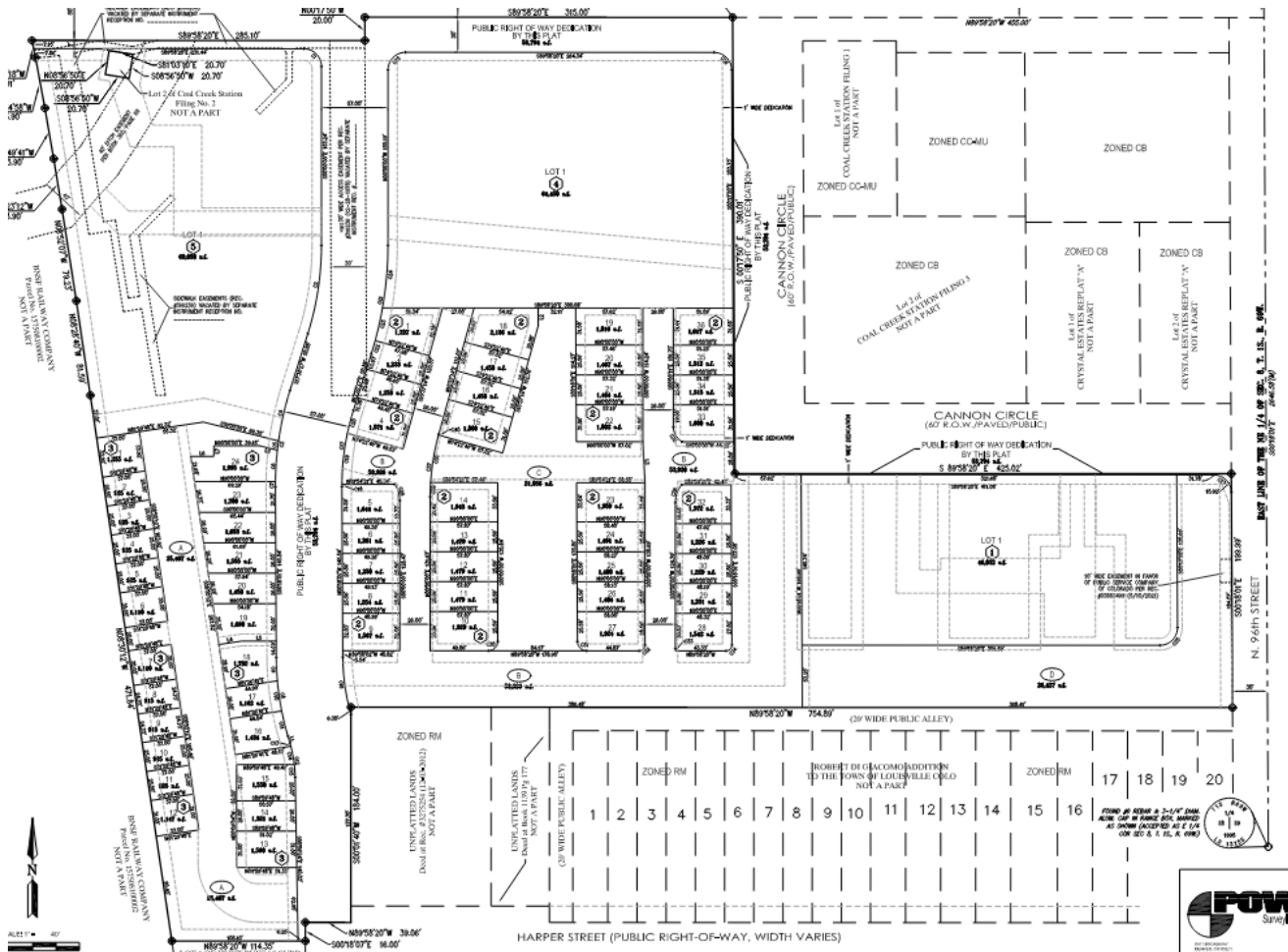
The request includes a proposal to subdivide the existing 10.7 acre property into five blocks that will accommodate the anticipated development. Further subdivision of the townhome blocks (blocks 2 & 3) into individual lots will allow for the fee-simple sale of those units. The plat sets aside four Outlots totaling 2.9 acres in size that include private roads, drainage and detention areas, utilities, open space and parks. The Outlots will be shared areas that are maintained by a required owner's association. The City will accept 1.2 acres of right-of-way, dedicated via this plat, that will allow for the construction of Front Street and Cannon Circle. The total right-of-way dedication includes additional area along South Boulder Road that will align the property boundary with the edge of public improvements. A Subdivision Improvement Agreement will be entered into during the Final Plat review process outlining maintenance and improvement responsibilities.

A portion of the plat will include the Coal Creek Station Filing No. 2 subdivision; a previously subdivided portion of the property on the northwest corner of the site. That plat created Lot 2 (also depicted on this Preliminary Plat), which is currently developed and occupied by The Argentos Empanada and maintained under separate ownership. The proposed subdivision will maintain the current boundary and configuration of Lot 2.

A portion of the south side of the site, occupied by Outlot D, will include a 26,397 square-foot detention and water quality pond. Outlot C is proposed as a 20,908 square-foot park

in the center of the site that will be privately owned and maintained by the required owner's association.

Sixty townhome lots are proposed in Blocks 2 and 3 of the plat, all accessed by private drives which are contained in Outlots A and B, respectively. Blocks 4 and 5 include two multifamily and two mixed-use buildings, while Block 1 contains "micro townhome units". Staff find that the Preliminary Plat complies with the design standards in the LMC Sec. 16.16.



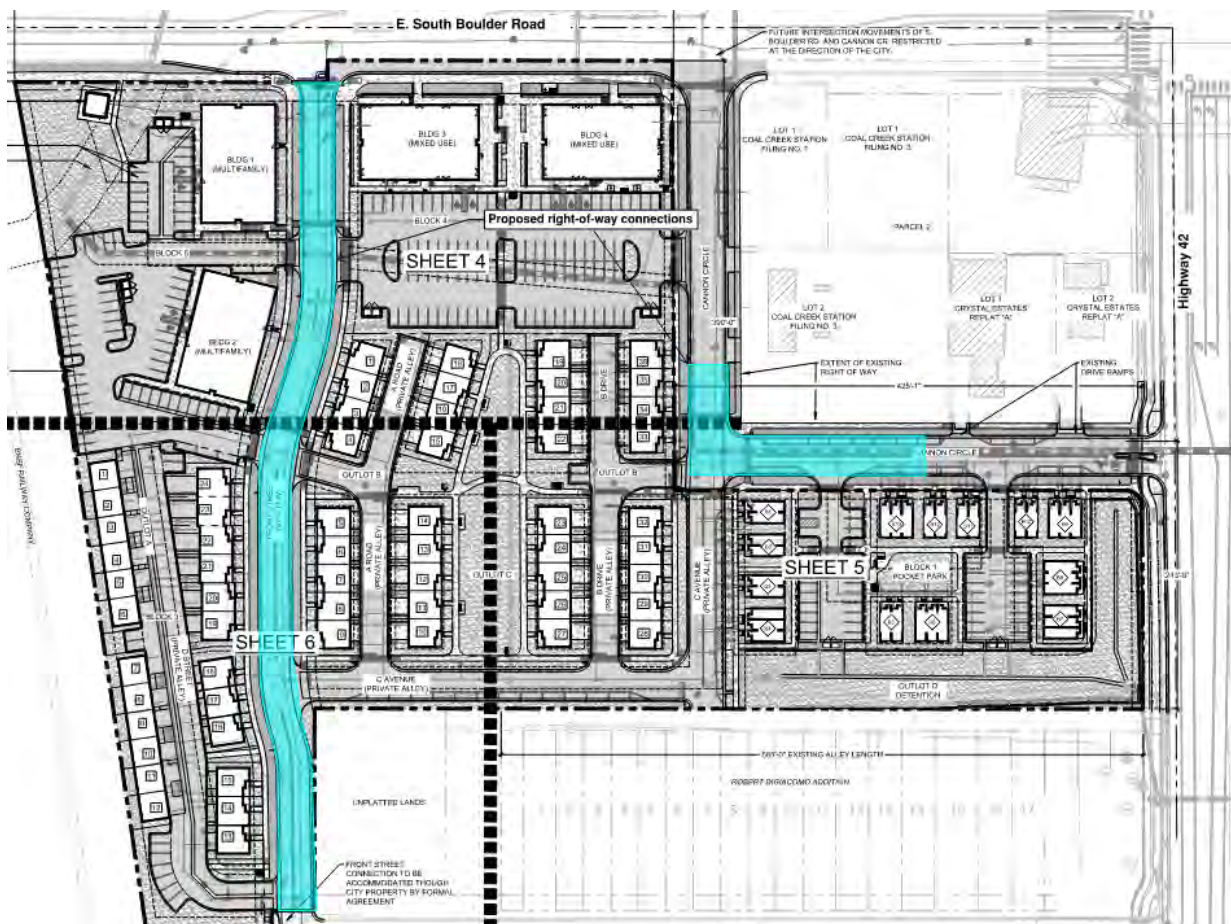
Preliminary Plat

Preliminary PUD

The Preliminary PUD plan includes 188 dwelling units and 13,534 square feet of commercial space. The 188 dwelling units include 60 townhomes, 96 apartments, and 32 "micro-townhome units," which are defined by the applicant as 350-400 square-foot homes designed to be offered at "attainable" rates. The proposal features two, three-story mixed-use buildings near South Boulder Road (buildings 3 & 4), with commercial space on the

ground floor and studios, one- and two-bedroom apartments on the second and third floors. A plaza space is provided between the mixed-use buildings in accordance with MUDDSG standards. Two additional three-story multifamily buildings (buildings 1 & 2) are planned for the interior of the site along Front Street, each offering 24 units ranging from 500 to 900 square feet in size.

The development will require the dedication, construction, and connection of Front Street from its north terminus on the south side of the site to E. South Boulder Road, where right-in right-out access is proposed. Cannon Circle, on the northeast side of the site, will also be dedicated, constructed, and connected providing access to the site from Highway 42 and South Boulder Road. According to the future Land Use Plan, Exhibit A, both Front Street and Cannon Circle are planned to connect through the site to improve overall connectivity in this part of the city.



Site Plan with Right-of-way Connections Shown in Blue

The full extent of both Front Street and Cannon Circle will include 5-foot detached sidewalks with 8-foot tree lawns, while similarly designed detached walks are provided adjacent to private alleys throughout the site.

The site is appropriately parked, with all proposed townhomes designed with alley-loaded garages that account for 120 total spaces on site. 316 parking spaces are provided with a minimum of 304 required by the LMC to support all uses on site. The apartments, mixed-use buildings, and micro townhomes include surface parking internal to their respective blocks and located behind buildings so as not to be prominent from the street.

A 20,908 square-foot park is located on Outlot C, which is designed to accommodate the main entrance of 18 townhomes on site, while a smaller, 2,350 square-foot pocket park is provided within the micro townhome block.

Landscaping includes low-water shrubs, grasses, perennials, and trees in common areas, open space areas, the detention area, and within the public and private tree lawns through the site. The applicant has proposed some high-demand water areas on site that utilize turf as a landscape material. Recently adopted [Colorado SB24-005](#) states that, on or after January 1, 2026, local governments are prohibited from allowing the installation of “nonfunctional turf” with certain development proposals. Due to the timescale of this project, staff will work with applicant through the Final PUD and Plat process to ensure compliance with this measure.

Block 1 of the development includes 32 micro townhome units, proposed to be 350-400 square feet in size and designed at an “attainable” scale, consisting of three-unit and two-unit townhomes to a maximum height of 25 feet.

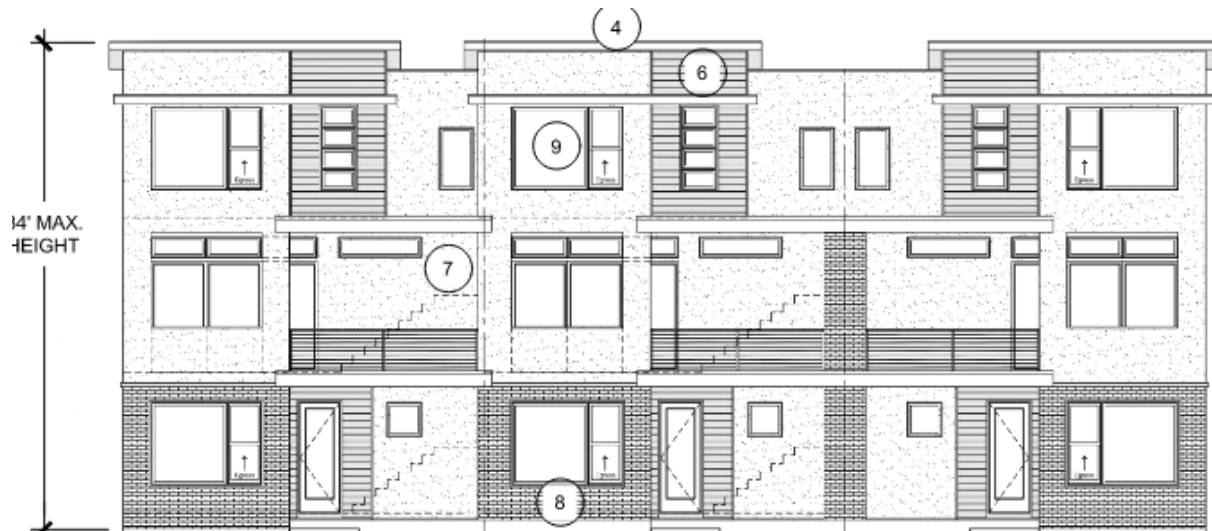


Block 2 of the development includes four- and five-unit townhomes, each 40 feet tall, arranged around a proposed central park. All units include alley-loaded garages.



Block 2 - four-unit townhomes

Block 3 of the development includes three- and six-unit townhomes. The six-unit dwellings are proposed at 40 feet tall, while the three-unit dwellings are adjacent to the west side of the existing single-family homes in the Little Italy neighborhood and are limited to 34 feet in height in accordance with height transition standard in MUDDSG Chapter 8.



Block 3 - height restricted, three-unit dwellings



Block 3 - six-unit dwellings

Blocks 4 and 5 of the development include the mixed-use and multifamily buildings with associated site improvements, including surface parking and a plaza space between buildings



Mixed-use building

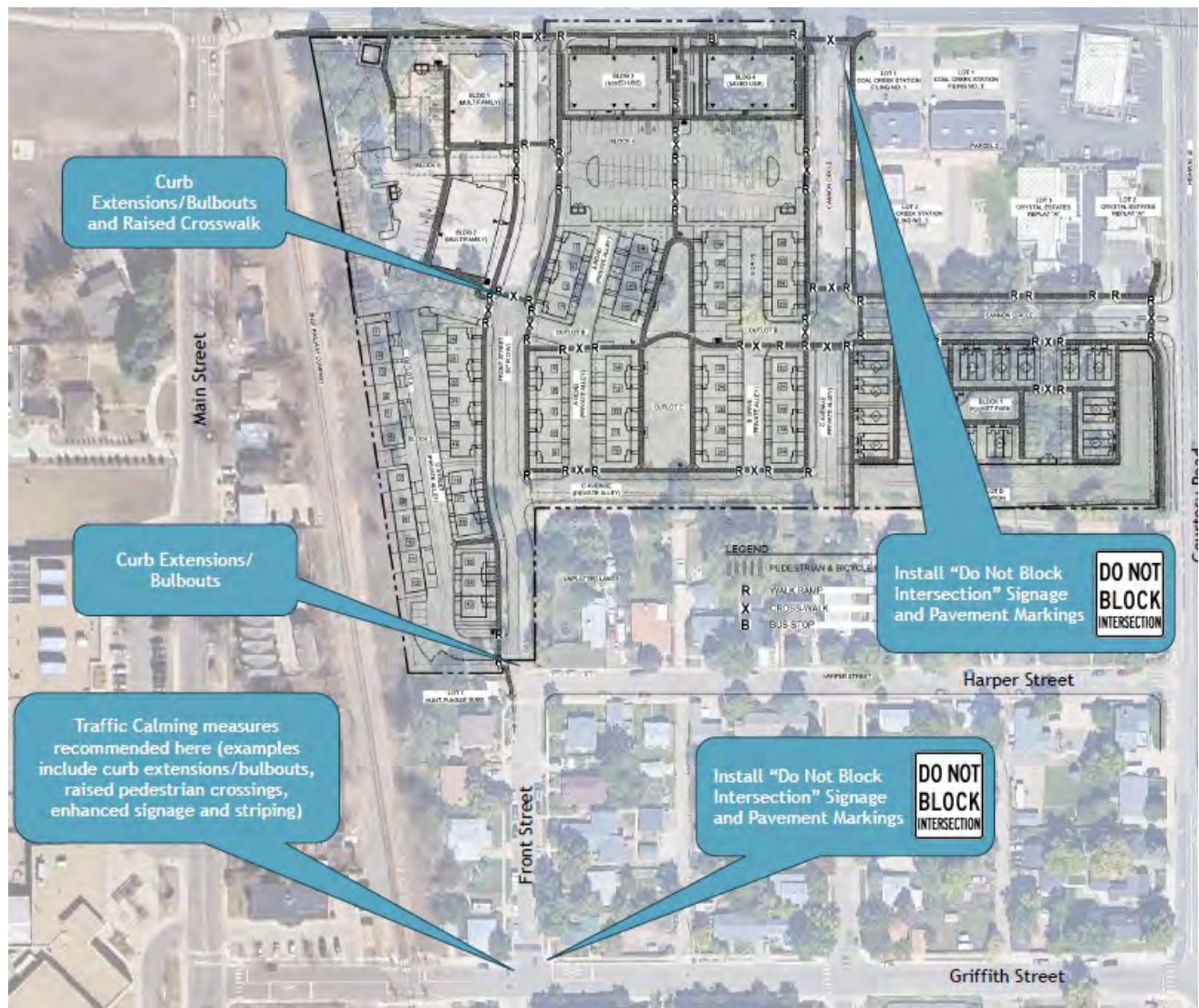
In addition to the Front Street connection, the updated TIS analyzed additional intersections in the vicinity of the development site to evaluate projected Levels of Service (LOS), a standard measure of intersection delay. LOS "A" represents little or no delay (0–10 seconds per vehicle), while LOS "E" and "F" indicate failing intersections, typically exceeding 55 seconds of delay per signal cycle during peak hours. The analysis shows that, when comparing background conditions with total projected traffic, most intersections are expected to continue operating at an acceptable LOS of "D" or better, with some intersections projected to improve, while others worsen. Several intersections currently operate at LOS "E" or "F" during certain peak periods, and the majority of those locations are projected to remain at lower LOS levels in future conditions. Background (existing) LOS counts are provided on p. 29 of the updated TIS, while projected LOS counts with the Front Street connection are presented on p. 61 of the revised TIS and here for reference.

In response to concerns raised by neighboring community members most directly impacted by the development, the applicant has elected to proactively implement the traffic-calming measures recommended in the TIS. These measures include bulb-outs, curb extensions, and a raised crosswalk along the new portion of Front Street, as well as crosswalk and pavement marking improvements at the Griffith Street/Front Street intersection. In

#	Intersection	Traffic Control	Approach	Year 2026 Total with Front Street Level of Service (Delay in Seconds)			Year 2045 Total with Front Street Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
1	South Boulder Road & Main Street	Signal	EBT	A (8.2)	A (10.0)	A (7.0)	A (9.4)	B (13.1)	A (7.2)
			EBR	A (1.4)	A (2.5)	A (1.5)	A (2.2)	A (3.3)	A (1.5)
			WBL	A (5.2)	A (9.3)	A (3.4)	A (4.9)	B (12.8)	A (3.5)
			WBT	A (5.8)	A (6.2)	A (3.3)	A (7.0)	A (7.6)	A (3.4)
			NBL	E (58.4)	E (61.8)	D (48.4)	E (56.2)	E (59.2)	D (47.7)
			NBR	B (13.7)	C (32.8)	B (13.9)	B (13.8)	D (49.3)	B (14.3)
2	South Boulder Road & Front Street	3/4, NB/SB Stop	WBL	B (11.6)	C (18.5)	B (12.1)	B (13.3)	D (26.8)	B (14.2)
			NB	B (12.4)	C (16.9)	B (12.7)	B (14.1)	C (22.1)	B (14.5)
			SB	C (15.5)	B (13.6)	B (12.2)	C (19.4)	C (16.0)	B (13.9)
3	South Boulder Road & Cannon Circle	3/4 NB/SB Stop	EBL	C (17.1)	C (18.0)	B (13.0)	D (26.0)	D (29.8)	C (16.7)
			WBL	B (10.7)	C (16.8)	B (10.9)	B (12.3)	D (25.4)	B (12.6)
			NB	B (12.6)	C (19.2)	B (12.9)	B (14.5)	D (26.6)	B (15.0)
			SB	C (16.1)	C (15.3)	B (13.2)	C (20.8)	C (19.4)	C (15.4)
4	SH 42 (Courtesy Road) & South Boulder Road	Signal	EBL	F (545.3)*	F (953.6)*	F (596.3)*	F (953.0)*	F (1559.4)*	F (964.2)*
			EBT	C (30.5)	D (45.8)*	C (25.7)	C (29.3)	D (41.9)*	C (26.1)
			EBR	-	-	-	A (9.8)	A (6.7)	A (1.2)
			WBL	E (61.5)	F (106.4)*	E (75.6)*	E (65.1)*	F (167.8)*	F (99.5)*
			WBT	D (42.8)	D (48.1)	C (33.8)	D (49.0)*	E (58.5)*	D (35.1)
			WBR	A (4.9)	A (7.8)	A (3.8)	A (8.5)	B (14.5)	A (3.7)
			NBL	E (63.3)	F (191.3)*	F (187.7)*	F (568.5)*	F (379.1)*	F (341.8)*
			NBT	C (32.6)	E (76.8)*	C (26.6)	D (36.8)	D (48.2)*	C (24.9)
			NBR	-	-	-	B (10.1)	B (13.2)	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	C (22.3)	A (8.2)	A (6.0)	D (40.4)*	B (16.4)	B (11.1)
5	SH 42 (Courtesy Rd) & Cannon Circle	EB Stop	EB	B (12.6)	B (13.1)	B (11.2)	B (14.6)	C (15.3)	B (12.3)
			NBL	B (11.6)	B (11.1)	B (10.1)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	EB/WB Stop	EB	F (81.6)	F (96.8)	E (35.4)	-	-	-
			WB	F (77.4)	F (137.2)	D (27.7)	-	-	-
			NB	A (0.5)	A (0.3)	A (0.3)	-	-	-
			SB	A (0.0)	A (0.0)	A (0.1)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	Signal	EBL	-	-	-	C (27.1)	C (25.6)	C (20.4)
			EBT	-	-	-	A (1.0)	A (1.0)	A (9.1)
			WBL	-	-	-	C (24.0)	C (24.0)	B (18.5)
			WBT	-	-	-	C (21.0)	C (21.0)	B (13.3)
			NBL	-	-	-	C (26.8)	C (25.6)	B (17.8)
			NBT	-	-	-	A (4.4)	A (5.7)	A (4.8)
			SBL	-	-	-	C (28.8)	C (33.0)	B (17.6)
			SBT	-	-	-	A (5.1)	A (6.8)	A (4.7)
7	Griffith Street & Cannon Street	NB/SB Stop	EB	A (0.0)	A (0.2)	A (0.0)	A (0.0)	A (7.5)	A (0.0)
			WB	A (1.0)	A (0.0)	A (1.4)	A (1.0)	A (0.0)	A (1.4)
			NB	B (10.1)	B (10.6)	A (9.6)	A (9.7)	B (10.2)	A (9.3)
			SB	A (8.9)	B (11.0)	A (9.2)	A (8.9)	B (11.1)	A (9.3)
8	Griffith Street & Front Street	NB/SB Stop	EB	A (0.5)	A (1.3)	A (1.2)	A (0.6)	A (1.3)	A (1.3)
			WB	A (0.2)	A (0.2)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
			NB	B (10.3)	B (10.4)	B (10.1)	B (10.2)	B (10.3)	A (10.0)
9	Griffith Street & Main Street	WB Stop	SB	A (9.9)	B (10.4)	A (9.4)	A (9.9)	B (10.5)	A (9.5)
			WB	C (15.2)	B (13.7)	B (11.6)	B (14.8)	B (13.6)	B (11.5)
10	Harper Street & Front Street	WB Stop	SB	A (1.2)	A (0.0)	A (0.9)	A (1.2)	A (0.0)	A (0.7)
			WB	A (9.6)	A (9.7)	A (9.5)	A (9.7)	A (9.7)	A (9.6)
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	SB	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
			EB	D (33.7)	F (118.0)	E (40.9)	B (14.5)	C (17.7)	B (12.7)
			NBL	B (10.4)	B (10.7)	A (9.3)	-	-	-

Total Traffic LOS with Front Street Connection

addition, a unique traffic-calming treatment is proposed at the Front Street/Harper Street intersection, consisting of a mountable, roll-over curb intended to discourage cut-through traffic from South Boulder Road to Griffith Street.



Traffic Calming Exhibit

ANALYSIS:

Rezoning

The purpose of the Mixed Use Zone District is to implement the Highway 42 Revitalization Area to support potential development of a commuter rail station. The intent is to transition the historically industrial and vacant properties within the district to mixed-use **Preliminary**

Plat Analysis

developments with multi-modal transportation and walkability oriented to the rail station. While the commuter rail station has not yet materialized as planned, RTD recently

completed a feasibility study to bring “Peak Service” rail (limited rail service to support peak hour commuting on a single track) to the Northwest Rail corridor. In addition, the State has initiated a new effort to support “Peak Service” commuter rail through the Northwest region with a stop in Louisville. There are new funding sources for this segment of commuter rail line that the State approved in 2024 and a partnership with the Front Range Passenger Rail District that may make it feasible to start rail service in Louisville as early as 2029.

Per LMC Sec. 17.14.030, the MU-R zoning district is *intended to implement the residential mixed use land use and planning goals depicted and discussed in the Highway 42 Revitalization Area Plan. Areas zoned MU-R should be used predominantly for higher density multi-family residential, with subsidiary commercial uses and civic uses that cater to the needs of residents and transit commuters.*

LMC Sec. 17.44.050 establishes four potential policies for rezoning. Any request for a rezoning should meet one or more of the established policies. Staff recommend a finding that the following policy is met with the requested rezoning:

- *The area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area;*

Staff find that changed conditions include the lack of market feasibility for purely commercial uses on the current CC-MU parcels. This is due to ongoing weak market conditions that do not support additional large-scale retail or office development. According to the provided market analysis (Attachment 5), retail demand remains limited. Modest new completions and tenant interest are concentrated in smaller pad users such as gas/convenience, quick-service restaurants, and financial services, while larger-format users are scarce. Office conditions remain even more constrained, with vacancy at 27.4%, and construction activity at historic lows as conversions and demolitions outpace new development. These findings confirm that speculative, large-scale commercial development is less feasible under current conditions, and that more viable opportunities are likely to center on smaller-scale retail paired with residential and mixed-use development.

The public interest for rezoning this property is to stimulate development of the vacant areas around Highway 42 and South Boulder Road to achieve the desired mixed-use environment, boost economic activity, and provide additional housing in the City of Louisville. Rezoning the CC-MU portions of this property will allow for development that will support surrounding commercial uses by activating this site and adding residences to the neighborhood, addressing the goals of the Highway 42 Revitalization Area Framework Plan.

Additional residential development on site will support the implementation of the recently adopted [Louisville Housing Plan](#), the primary goals of which include increasing development opportunities in Louisville by expanding, maintaining, and diversifying Louisville's housing stock.

Staff also note that the Highway 42 Revitalization Area Comprehensive Plan Amendment envisioned mixed-use residential development adjoining Highway 42 in addition to commercial development and specifically shows mixed-use residential development in the vicinity of the subject property.

Preliminary Plat Analysis

Section 16.12.075 of the LMC establishes the following criteria for consideration of Preliminary Plats by Planning Commission and City Council:

1. *Whether the plat conforms to all of the requirements of Title 16 (Subdivisions);*
 - No modifications have been requested by the applicant, and the plat conforms to all other requirements of Title 16. Further and more detailed review will occur at the Final Plat stage.
2. *Whether approval of the plat will be consistent with the city's comprehensive plan, applicable zoning requirements, and other applicable federal, state and city laws;*
 - The application is consistent with the City of Louisville Comprehensive Plan. The area lies within an urban neighborhood designation in the plan, which is characterized by smaller blocks and lots with a street orientation. The plat provides a design that supports this urban development pattern.
3. *Whether the proposed subdivision will promote the purposes set forth in Section 16.04.020 of this Code and comply with the standards set forth in Chapter 16.16 of this Code and this title.*
 - Staff find that the proposal promotes the purposes set forth in the LMC Title 16, including the assurance that public services are available, that character and economic stability of the City is protected, that there is safe and efficient circulation of traffic, and that the plat provides appropriate regulation of the use of land in the City. New public right-of-way is proposed to be dedicated and constructed and easements will be established for utility service and drainage areas. The plat allows for a residential and mixed-use development and meets permitted densities for the net site area.
 - LMC Sec. 16.16.060 states that a public land dedication of 15% for residential land and 12% for commercial land, or cash in lieu, is required when property is subdivided for development. The LMC states that public dedication requirements "shall not apply in cases where satisfactory

dedication arrangements were made and approved by the city council at the time of annexation or previous subdivision of the same property.” The entirety of this property was originally platted as part of the [Caledonia Place](#) subdivision in 1890 and the [Coal Creek Station Filing No. 2](#) subdivision in 1978. There was not a previous public land dedication made with the 1890 Caledonia Place subdivision. Additionally, staff could not locate any record of a public land dedication being made as part of the 1978 Coal Creek Station Filing No 2 subdivision or any of the other Coal Creek Station subdivision filings. The Coal Creek Station Filing No. 2 subdivision had previously been developed as a commercial center, which has since been demolished, and the remaining portion of the property covered by the Caledonia Place subdivision has never been developed. Based on these previous subdivisions and the development of portions of the subject property, when the City approved a final PUD and subdivision in 2016, the City did not require a public land dedication. However, the 2016 approvals were never finalized and recorded. Staff has processed this application with the same assumptions as the 2016 approval, that the previous subdivisions and development of the property resulted in not having a new requirement for public land dedication. However, if City Council determines that satisfactory arrangements were not made as part of one or both previous subdivisions, then Council could require additional public land dedications authorized under LMC Sec. 16.16.060.

Staff find the Preliminary Plat to be consistent with the criteria in LMC Chapters 16 and 17 and recommend approval.

Preliminary PUD Analysis

The site design is regulated by LMC Chapter [17.14](#) and [17.28](#), the [Mixed Use Design Standards and Guidelines \(MUDDSG\)](#), and Comprehensive and adopted City Plans.

MUDDSG

The MUDDSG apply to the design and development of this site, establishing requirements for street and block design, vehicle and pedestrian circulation, site planning, parking, open space, landscaping, and building design. The MUDDSG are intended to ensure that new development within the MU-R district contributes to a connected, multimodal, and high-quality built environment.

With consideration given to the waiver requests described below, staff find that the proposal satisfies the applicable standards of the MUDDSG. The project provides appropriate site planning and building orientation, incorporates adequate off-street parking consistent with the standards, and demonstrates compliance with building massing, design, and material requirements. Open space and landscaping features are provided in accordance with Section 6 of the MUDDSG, and the proposal includes pedestrian and bicycle circulation improvements that align with the connectivity standards. Collectively,

the application demonstrates conformance with the MUDDSG requirements and achieves the overall intent of creating a cohesive mixed-use development.

The street and block standards are a foundational element in establishing a multimodal, mixed-use development. These standards are intentionally modeled on the existing street grid in Downtown Louisville to promote development in the MU-R zone district as a logical extension of Downtown (p. 6). By requiring a connected grid, the standards ensure present and future opportunities for vehicle, pedestrian, bike, and visual access between districts, supporting circulation, walkability, and integration with surrounding neighborhoods.

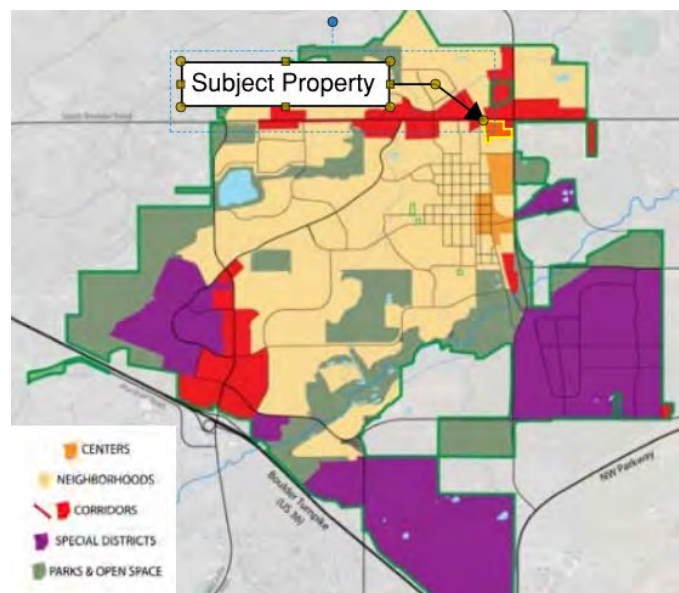
Inclusionary Housing

The applicant has indicated their intent to satisfy the requirements of LMC Chapter 17.16 by providing on-site affordable housing pursuant to LMS Sec. 17.76.050.A, which will require that at least 12 percent of the units on-site to be deed restricted, which would total 23 of the 186 planned units. A minimum of half of the affordable housing shall be limited to those households at or below 60 percent of the area median income (AMI), with the remainder limited to those persons between 60 percent and 80 percent AMI, as calculated by the United States Department of Housing and Urban Development.

Comprehensive and Small Area Plans

This property is referenced in both the 2013 [Comprehensive Plan](#) and the [South Boulder Road Small Area Plan](#). Within the Comprehensive Plan, the property is located in the Highway 42 and South Boulder Road Urban Center (p. 29) with an Urban Corridor designation. The Urban Pattern (p. 19) calls for an interconnected street network with multimodal transportation opportunities, development on smaller parcels, and street-oriented building placement with an emphasis on pedestrian scale and massing. The identified neighborhood development types are predominately residential and may range from low-

density to high-density multifamily communities. Based on this guidance, the Urban Neighborhood designation at this location would support a mid- to high-density multifamily project. The Corridor development type calls for strong retail, commercial, and multifamily development types (P. 22). The Urban Corridor designation of this property supports the mix of uses adjacent to South Boulder Road, with a focus on multifamily density.



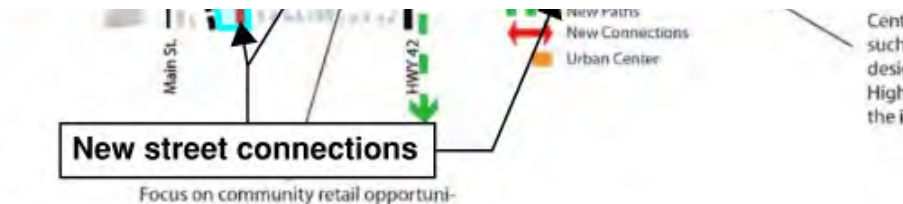
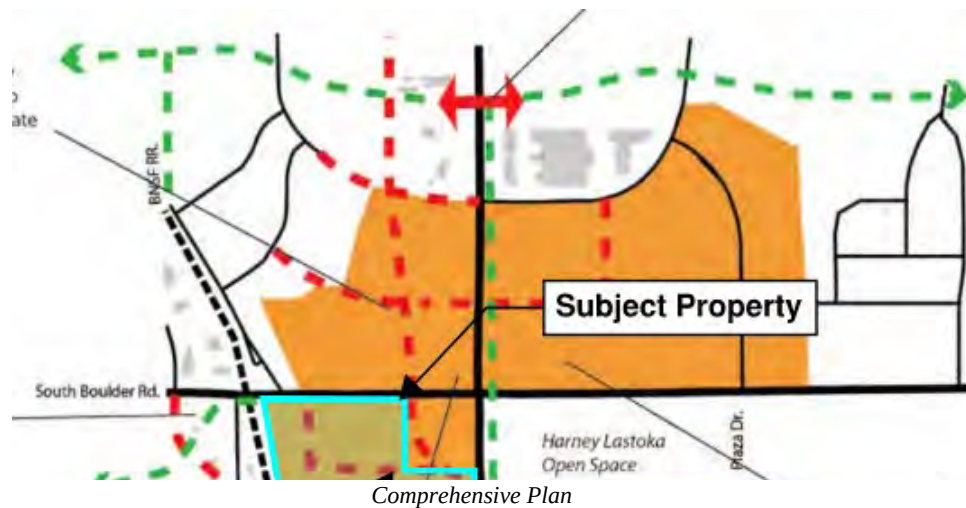
The Highway 42 and South Boulder Road Urban Center is intended to bring the separate parcels surrounding the intersection into one cohesive center. As properties redevelop, new roadway connections should be introduced to create a more connected street grid with smaller parcels that relate to one another in an urban and walkable mixed-use environment (p. 29). As redevelopment occurs, the introduction of a roadway network will enable a variety of redevelopment possibilities and connect the Highway 42 and South Boulder Road Urban Center to the rest of Louisville (p. 29, Policy 5). New commercial retail services are encouraged in the Urban Center where the location and scale of such

Comprehensive Plan

development is appropriate for the area.

The proposal is also consistent with policies in the Comprehensive Plan's Neighborhoods and Housing, and Economic Development framework, including:

- **PRINCIPAL NH-3.1** - Streets shall form an interconnected network (p. 37).



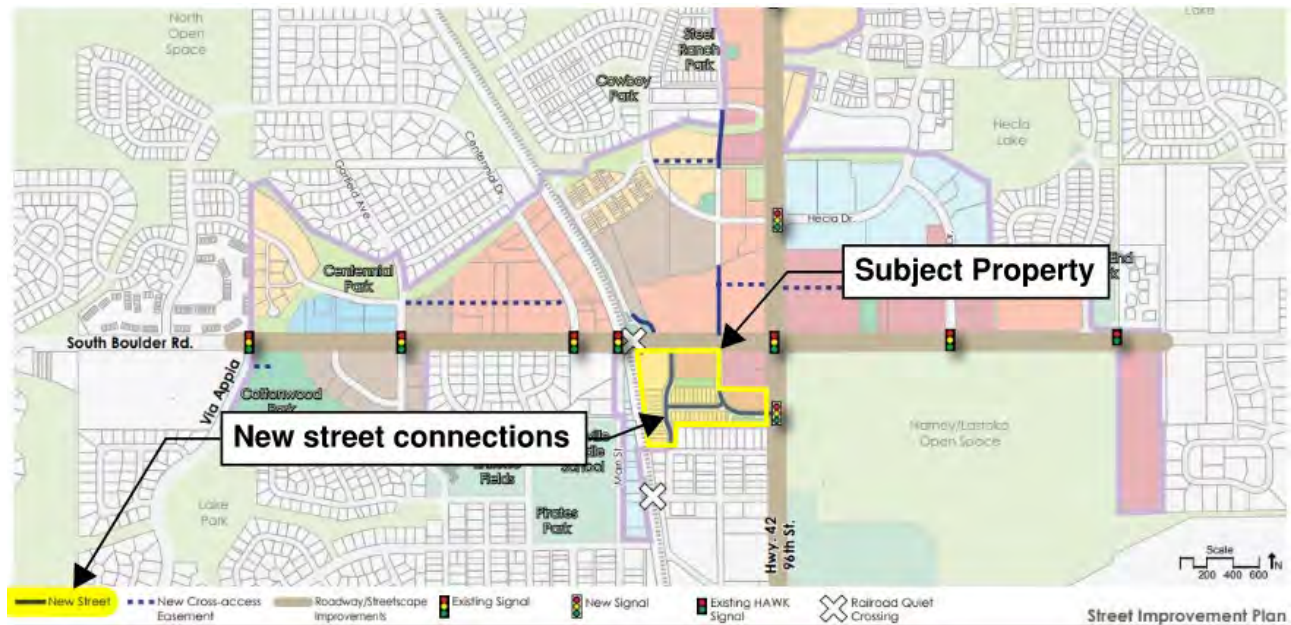
- **POLICY NH-3.4** - Diverse housing opportunities shall be available for residents of varying income levels (p. 38).
- **PRINCIPLE NH-4** - The character and identity of existing residential neighborhoods should be maintained while allowing for evolution and reinvestment (p. 38).
- **POLICY NH-4.7** - Housing should support vibrant retail and commercial centers that serve local residents (p. 38).
- **PRINCIPLE NH-5** - There should be a mix of housing types and pricing to meet changing economic, social, and multi-generational needs of those who reside, and would like to reside, in Louisville (p. 38).

- POLICY NH-5.3 - Higher density housing should be located primarily in the centers and corridors of the Framework (p. 38).
- PRINCIPAL ED-3 - The City should be responsive to market opportunities as they occur and maintain and enhance the City's competitive position to attract development that adheres to the Community Vision (p. 38).

The proposal is consistent with the policies in the Neighborhoods and Housing, and Economic Development framework because:

- The proposal provides additional street connectivity;
- It provides a variety of housing types for varying income levels, including deed-restricted affordable housing;
- The proposal allows for the redevelopment of a vacant site adjacent to existing residential;
- The housing is relatively close to Downtown and the South Boulder Road commercial corridor. The resulting customer base supports vibrant retail and commercial centers that serves local residents;
- The proposed housing ensures a variety of housing types to meet changing social needs of current and future residents;
- Higher density housing would be established within the Highway 42 and South Boulder Road Urban Center and South Boulder Road Corridor; and
- The proposal is appropriate due to current market conditions.

The South Boulder Road Small Area Plan designates the property for medium-density residential development and retail/office (p. 21). Medium density residential is defined by the Plan as a density range of 10 to 20 dwelling units per acre, while the retail/office use is contemplated where the property is currently zoned CC-MU. Further, the Plan contemplates additional street connections, specifically the Front Street connection, as improving overall connectivity in the street network (p. 11).



Transportation Plan

The [Transportation Plan](#), adopted in 2019, provides a City-wide framework for managing and improving Louisville's transportation system. It evaluates existing conditions, establishes goals, and identifies policies, projects, and programs to create a safe, efficient, and multimodal network that serves all users. The plan is intended to guide both near- and long-term transportation decisions, ensure consistency with community values and land use goals, and enhance connectivity for driving, walking, biking, and transit while supporting economic vitality, environmental health, and overall quality of life. The TMP includes a number of goals to which this application satisfies:

- Efficient and safe transportation systems (p. 1.6) – this application includes additional vehicular, bicycle, and pedestrian connectivity that, when implemented with the development, will minimize conflict on the broader transportation network.
- Cohesive and layered system of streets and trails for walking, biking, and driving (p. 1.6) – this application introduces connectivity to the transportation network for all modes of transportation.

CITY COUNCIL COMMUNICATION

- Complete streets that are inviting, enhance livability, and respect the City's small-town atmosphere (p. 1.7) – the proposed Front Street connection completes a through design that will benefit all modes of transportation with proactive traffic calming measures and pedestrian crossing improvements.

Housing Plan

This application is consistent with the [Louisville Housing Plan](#) (May 2024). The Housing Plan establishes three primary goals, which are to increase opportunities for residential development in appropriate locations, to expand and maintain access to affordable housing, and to diversify the housing stock by encouraging mixed-use and mixed-income neighborhoods with a wider range of housing types to serve different household sizes, incomes, and demographics (p. 26).

The plan further identifies the importance of supporting housing opportunities in the City of Louisville. Strategies and findings to provide more housing include:

- *Action 1.1 Establish Criteria and Identify Areas for Zoning Changes to Support Additional Residential Development:* The Plan recommends rezoning underutilized commercial properties to increase residential capacity and address housing demand (p. 31–32).
- *Action 3.2 Expand Allowances for More Housing Types:* This action calls for expanding allowances for multifamily housing in commercial zones and considering stand-alone residential development in appropriate commercial areas (p. 46–47).
- The Housing Needs Assessment (included as an addendum to housing plan) indicates a need to prioritize diversifying the City's housing stock to adequately meet the needs of future residents (p. 2).

Staff find that the proposed development and associated improvements are consistent with the City's adopted policy framework, including the Comprehensive Plan, the South Boulder Road Small Area Plan, the Transportation Plan, and the Louisville Housing Plan. Collectively, these plans emphasize the creation of connected, multimodal, mixed-use environments and the expansion of housing opportunities to meet community needs. The proposal advances these adopted goals by aligning with the City's long-term vision for coordinated growth, improved mobility, and enhanced quality of life.

Traffic Impact Study

The updated Traffic Impact Study (TIS), submitted with this application and reviewed by staff, incorporated new traffic counts, expanded intersection analysis, and evaluation of long-term conditions both with and without the Front Street connection. The findings

demonstrate that the proposed development can be successfully integrated into the existing roadway network with the Front Street connection in place, maintaining safe and efficient operations while mitigating traffic impacts on adjacent streets.

The Front Street connection is an essential component for maintaining circulation and safe vehicular operations associated with the proposed development. Its construction would provide necessary transportation redundancy, support a safer and more efficient gridded street network consistent with prior planning efforts, and distribute traffic more evenly across the surrounding roadway system. For these reasons, staff conclude that the Front Street connection is crucial to achieving acceptable traffic conditions and ensuring compatibility with the broader transportation system.

PUD Waiver Compliance with LMC Sec. 17.28.110 Analysis

Section 17.28.110 sets forth the PUD waiver process and criteria. The applicant requests zoning waivers from the MU-R zoning requirements and MUDDSG design requirements as set forth below.

WAIVERS*			
	CODE SECTION	REQUIREMENT	PROPOSED
1	MUDDSG 1.3.A.1 MUDDSG 1.3.B.1	EAST/ WEST BLOCK WIDTH = 270 - 320' NORTH/ SOUTH BLOCK WIDTH = 300 - 400'	BLOCK ONE: EAST AND WEST SIDES =146', NORTH AND SOUTH SIDES =321'; BLOCK TWO: EAST AND WEST SIDES =293', NORTH AND SOUTH SIDES =333'; BLOCK THREE: EAST AND WEST SIDES =443', NORTH AND SOUTH SIDES =155'; BLOCK FOUR: EAST AND WEST SIDES =221', NORTH AND SOUTH SIDES 295'; BLOCK FIVE: EAST AND WEST SIDES = 332', NORTH AND SOUTH SIDES = 246'
2	MUDDSG 5.4.B	ALL PUBLIC SIDEWALKS SHALL BE A MINIMUM OF TEN (10) FEET WIDE INCORPORATING TREE PLANTING INTO THE RIGHT OF WAY (ROW).	ALONG FRONT STREET AND CANNON CIRCLE: 5' WIDE DETACHED SIDEWALK AND AN 8' TREE LAWN
3	MUNICIPAL CODE 17.14.060 - TABLE 3: DIMENSIONAL AND BULK STANDARDS	MINIMUM LOT WIDTH = 40 FEET	TOWNHOME LOTS VARY FROM 24'-6" TO 32 FEET WIDE.
4	MUNICIPAL CODE 17.14.060 - TABLE 3: DIMENSIONAL AND BULK STANDARDS	MINIMUM BUILDING COVERAGE (SF) = 40%	BUILDING COVERAGE PROVIDED = 21.2%
5	MUNICIPAL CODE 17.14.060 - TABLE 3: DIMENSIONAL AND BULK STANDARDS	20-FOOT MINIMUM SETBACK FROM REAR PROPERTY LINE.	TOWNHOME REAR YARD SETBACK RANGES FROM 6-20 FEET.
6	MUNICIPAL CODE 17.14.060 - TABLE 3: DIMENSIONAL AND	MINIMUM 70% OF STREET FACING PROPERTY LINES MUST CONTAIN A BUILDING OR BUILDING WALL.	58.6% OF STREET FACING PROPERTY LINES CONTAIN A BUILDING OR BUILDING WALL.

Waiver table

In the MU-R zone district, there is a 40% minimum lot coverage requirement, a requirement that at least 70% of the street-facing property lines contain buildings, and a minimum lot width of 40 feet. The total proposed lot coverage for the entire development is 21.2%, allowing for more open space and pedestrian connectivity. The 70% frontage requirement adds additional challenges as the project will construct new public streets. The total percentage of buildings along the street-facing property lines is 58.6%. Considering the reduced density, these modifications to the yard and bulk standards are justified to make an attractive and functional development.

The applicant is requesting a waiver from the required internal sidewalk width of eight feet to allow sidewalks to be 5 feet wide, with an 8-foot tree lawn. Staff support the request, as

the [National Association of City Transportation Engineers](#) recommends residential walk widths between 5-7 feet.

The request for waiver from block length standards will allow the development to more closely align with proposed access points while ensuring that traffic is dispersed through and out of the site, while the addition of detached sidewalks along all streets and some private alley ways allows for accessible and safe pedestrian circulation.

The requested waiver for rear setback standards will have little to no impact on adjacent properties. The western-most townhomes abut the BNSF rail right-of-way, and there are no rear setbacks adjacent to the Little Italy neighborhood to the south.

Strict adherence to the dimensional standards of the MU-R zone district would limit the number of dwellings permitted, resulting in larger units on fewer lots. The intent of the MU-R zoning district is to provide higher density multi-family residential, with subsidiary commercial uses that cater to the needs of residents and transit commuters (LMC Sec. 17.14.030). The requested waivers will support the intent of the zoning district by allowing a reasonable, modern density of townhouses and apartments while still maintaining the character of development in Louisville with less building coverage proposed on site. Staff recommend approval of the requested waivers.

Staff find that the applicant has satisfied the standards for Preliminary PUD review and recommend approval with the conditions listed below.

Special Review Use Analysis

An SRU is required to establish dwelling units on the ground floor of the proposed mixed-use buildings in the MU-R zoning district. SRUs are reviewed against the criteria and conditions for approval presented in LMC Sec. 17.40.100. The criteria include ensuring the use meets the following:

- Satisfies the intent of the Comprehensive Plan and LMC Chapter 17
- The use is economically stable and compatible with surrounding areas
- The design promotes safety and welfare, including appropriate site layout
- External and negative impacts on adjacent properties are controlled for and reduced
- Adequate pedestrian walks and landscape areas are provided, including accommodations for public transportation.

A further, in-depth analysis of the SRU will occur during the Final PUD and Plat stage for final approvals. Staff have reviewed the proposal as part of the preliminary package and found that the application for SRU satisfies all relevant standards at this time.

2025 COUNCIL WORK PLAN:

This rezoning application supports the City Council's 2025 Work Plan priority to advance housing through implementation of the City of Louisville Housing Plan. The Council's Work Plan emphasizes Housing Plan implementation through code updates, City-initiated rezonings, and policies that expand attainable and affordable housing options. The proposed rezoning from CC-MU and R-M to MU-R will facilitate the construction of new housing units, including on-site affordable units, consistent with policy directives to increase housing supply and diversity.

FISCAL IMPACT:

Budgeted?: **Not Applicable**

ALTERNATIVE(S):

The City Council may approve or deny the rezoning application. Denial of the request would maintain the existing CC-MU and R-M zoning designations on portions of the site.

PLANNING COMMISSION RECOMMENDATION:

On October 9, 2025, the Planning Commission recommended approval of an ordinance rezoning portions of Caledonia Place Subdivision Plat from CC-MU (Commercial Community – Mixed Use) and R-M (Residential Medium Density) to MU-R (Residential Mixed Use) and Amending Exhibit A, Land Use Exhibit, Referenced in LMC Chapter 17.14. The video of that meeting is available [here](#).

For consideration of a Second Reading and Public Hearing on January 6, 2026: On October 9, 2025, the Planning Commission adopted Resolution No. 15, Series 2025, recommending approval of the Preliminary Planned Unit Development, Preliminary Plat, and Special Review Use applications to develop the subject property, with staff-recommended conditions and an additional condition imposed by the Commission requiring that the intersection of Front Street and Harper Street be limited to emergency, bicycle, and pedestrian access only. The video of that meeting is available [here](#).

STAFF RECOMMENDATION:

Staff recommend approval of Ordinance No. 1910, Series 2025, rezoning portions of Caledonia Place Subdivision Plat from CC-MU (Commercial Community – Mixed Use) and R-M (Residential Medium Density) to MU-R (Residential Mixed Use) and Amending Exhibit A, Land Use Exhibit, Referenced in LMC Chapter 17.14.

ATTACHMENT(S):

1. Ordinance No. 1910, Series 2025
2. Resolution No. 15, Series 2025

SUBJECT: ORDINANCE NO. 1910, SERIES 2025

DATE: NOVEMBER 18, 2025

PAGE 25 OF 25

3. Application Materials
4. Land Use Plan, Exhibit A
5. Market Analysis
6. Traffic Impact Study
7. Traffic Calming Exhibit
8. Change.org Petition
9. Presentation

**ORDINANCE NO. 1910
SERIES 2025**

**AN ORDINANCE APPROVING A REZONING OF A PORTION OF THE CALEDONIA
PLACE SUBDIVISION PLAT FROM COMMERCIAL COMMUNITY (C-C) AND
RESIDENTIAL MEDIUM DENSITY (R-M) TO MIXED-USE RESIDENTIAL (MU-R) AND
APPROVING AN AMENDMENT TO EXHIBIT A, LAND USE PLAN EXHIBIT,
REFERENCED IN LOUISVILLE MUNICIPAL CODE CHAPTER 17.14 – MIXED USE
ZONE DISTRICTS**

WHEREAS, Coal Creek Village, LLC is the owner of certain real property, described in the legal description attached hereto as Exhibit A, which constitutes a portion of the Caledonia Place Subdivision Plat; and

WHEREAS, the land owner has requested rezoning of the property from Commercial Community – Mixed Use (CC-MU) and Residential Medium Density (R-M) to Mixed Use Residential (MU-R), and approval of an amendment to the Land Use Plan, as depicted in the document attached hereto as Exhibit B, pursuant to Chapter 17.14 of the Louisville Municipal Code – Mixed-Use Zone Districts; and

WHEREAS, the Louisville Planning Commission has held a duly-noticed public hearing on October 9, 2025 to review the proposed rezoning and has forwarded a recommendation to the City Council to approve the rezoning and amendment to Land Use Plan; and

WHEREAS, the City Council held a duly-noticed public hearing on _____, 2025 to consider the proposed rezoning and amendment to the Land Use Plan; and

WHEREAS, the City Council finds that the rezoning and amendment to the Land Use Plan are consistent with Louisville Municipal Code Sec. 17.44.050.A.2, Declaration of Policy for Rezoning, which states that the *area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area*; and

WHEREAS, the City Council finds that conditions of the property have changed, including potential market feasibility of commercial-only development on the parcel and changes to vehicular access plans that are not supportive of highway-oriented commercial development; and

WHEREAS, the City Council finds that it is in the public interest to support redevelopment of the property which is located in the Highway 42 Revitalization Area and rezoning of the property will support the goal of the Urban Renewal Plan to reduce,

eliminate and prevent the spread of blight, to stimulate growth and redevelopment, and promote appropriate land uses.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO:

Section 1. Pursuant to the zoning ordinance of the City, that certain property described in the legal description attached hereto as Exhibit A, which constitutes a portion of the Caledonia Place Subdivision Plat is hereby rezoned from Commercial Community – Mixed Use (CC-MU) and Residential Medium (R-M) to Mixed Use Residential (MU-R).

Section 2. The Land Use Plan referenced in Louisville Municipal Code Chapter 17.14 – Mixed Use Zone Districts, is hereby amended as reflected in Exhibit B to this ordinance.

Section 3. If any portion of this ordinance is held to be invalid for any reason, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part hereof irrespective of the fact that any one part be declared invalid.

Section 4. The repeal or modification of any provision of the Municipal Code of the City of Louisville by this ordinance shall not release, extinguish, alter, modify, or change in whole or in part any penalty, forfeiture, or liability, either civil or criminal, which shall have been incurred under such provision, and each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings, and prosecutions for the enforcement of the penalty, forfeiture, or liability, as well as for the purpose of sustaining any judgment, decree, or order which can or may be rendered, entered, or made in such actions, suits, proceedings, or prosecutions.

Section 5. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof are hereby repealed to the extent of such inconsistency or conflict.

INTRODUCED, READ, PASSED ON FIRST READING AND ORDERED PUBLISHED this 18th day of November 2025.

Christopher M. Leh, Mayor

ATTEST:

Genny Kline, City Clerk

PUBLIC HEARING AND SECOND READING WILL BE THE 6th DAY OF JANUARY 2026, AT 6:00 P.M. AT LOUISVILLE CITY HALL, 749 MAIN STREET, LOUISVILLE, CO 80027.

PASSED AND ADOPTED ON SECOND AND FINAL READING, this ____ day of _____, 2026.

Christopher M. Leh, Mayor

ATTEST:

Genny Kline, City Clerk

APPROVED AS TO FORM:
Kelly PC

Kathleen Kelly, City Attorney

EXHIBIT A
LAND DESCRIPTION
SHEET 1 OF 4

A PORTION OF COAL CREEK STATION FILING NO. 1, LYING WITHIN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, BEING MONUMENTED AT THE NORTHEAST CORNER BY A FOUND 2" ILLEGIBLE BRASS CAP IN RANGE BOX AND AT THE NORTH QUARTER CORNER BY A FOUND 2-1/2" ILLEGIBLE ALUMINUM CAP IN RANGE BOX. SAID NORTH LINE BEARS NORTH 89°58'20" WEST A DISTANCE OF 2642.02 FEET (AS-MEASURED) WITH ALL BEARINGS HEREON BEING RELATIVE THERETO.

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 8;
THENCE NORTH 89°58'20" WEST, ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8, A DISTANCE OF 395.00 FEET TO THE POINT OF BEGINNING;

THENCE DEPARTING SAID NORTH LINE, SOUTH 00°17'50" EAST, A DISTANCE OF 360.00 FEET;
THENCE SOUTH 89°58'20" EAST, A DISTANCE OF 395.02 FEET TO A POINT ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8;
THENCE SOUTH 00°18'01" EAST, ALONG SAID EAST LINE, A DISTANCE OF 154.87 FEET;
THENCE DEPARTING SAID EAST LINE, NORTH 89°58'57" WEST, A DISTANCE OF 360.55 FEET TO THE BEGINNING OF A TANGENT CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 95.00 FEET, A DELTA ANGLE OF 89°41'07" WITH A CHORD WHICH BEARS NORTH 45°08'23" WEST A DISTANCE OF 133.98 FEET;

THENCE ALONG THE ARC OF SAID CURVE A DISTANCE OF 148.70 FEET;

THENCE NORTH 00°17'50" WEST, A DISTANCE OF 360.00 FEET;
THENCE SOUTH 90°00'00" WEST, A DISTANCE OF 316.05 FEET;
THENCE NORTH 00°00'15" EAST, A DISTANCE OF 200.18 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 8;

THENCE SOUTH 89°58'20" EAST, ALONG SAID NORTH LINE, A DISTANCE OF 375.00 FEET TO THE POINT OF BEGINNING.

CONTAINING: ±153,315 SQ. FT. OR ±3.520 ACRES.



FRANK ZWOLINSKI, P.L.S.
Colorado License No. 38060
For and on behalf of
Power Surveying Company, Inc.



DRAWING BY: MB DATE: 06/14/2022
PROJECT NO. 16-216

EXHIBIT A
EXHIBIT OF LAND DESCRIPTION
SHEET 2 OF 4

LEGEND

- FOUND MONUMENT AS NOTED
- (M) AS MEASURED
- (R) PER RECORD
- P.O.B. POINT OF BEGINNING
- P.O.C. POINT OF COMMENCEMENT

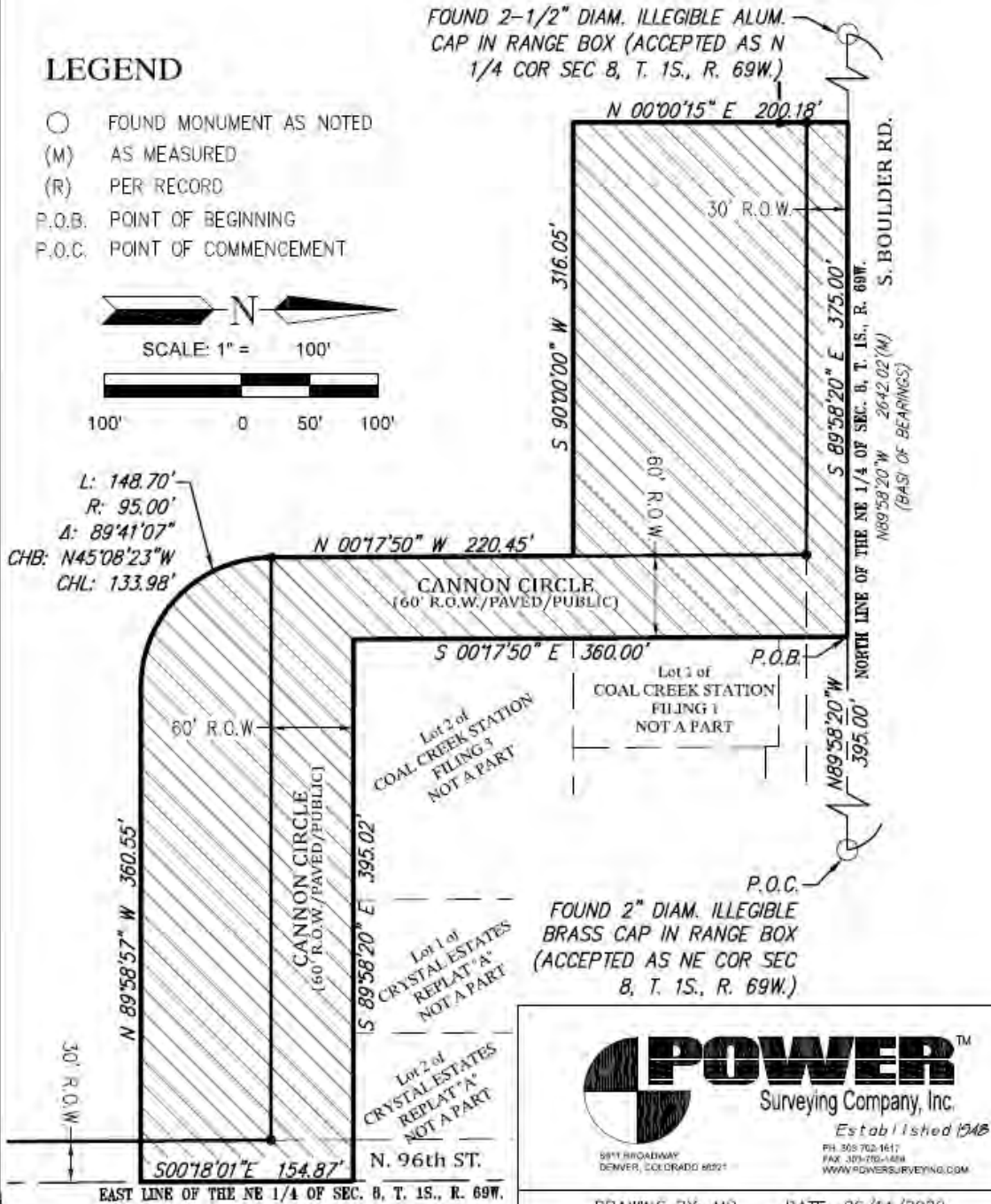
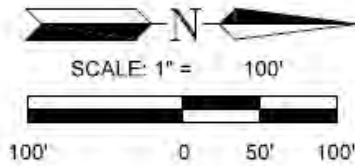


EXHIBIT A
LAND DESCRIPTION
SHEET 3 OF 4

A PARCEL OF LAND LYING WITHIN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, BEING MONUMENTED AT THE NORTHEAST CORNER BY A FOUND 2" ILLEGIBLE BRASS CAP IN RANGE BOX AND AT THE NORTH QUARTER CORNER BY A FOUND 2-1/2" ILLEGIBLE ALUMINUM CAP IN RANGE BOX. SAID NORTH LINE BEARS NORTH 89°58'20" WEST A DISTANCE OF 2642.02 FEET (AS-MEASURED) WITH ALL BEARINGS HEREON BEING RELATIVE THERETO.

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 8;
THENCE SOUTH 48°46'01" WEST, A DISTANCE OF 1243.37 FEET TO THE NORTHWEST CORNER OF LOT 1 HUNT-PUKSAS SUBDIVISION AND THE POINT OF BEGINNING;
THENCE NORTH 08°30'12" WEST, A DISTANCE OF 202.14 FEET;
THENCE NORTH 90°00'00" EAST, A DISTANCE OF 183.31 FEET;
THENCE SOUTH 00°01'40" WEST, A DISTANCE OF 184.00 FEET;
THENCE NORTH 89°58'20" WEST, A DISTANCE OF 39.06 FEET;
THENCE SOUTH 00°18'07" EAST, A DISTANCE OF 16.00 FEET;
THENCE NORTH 89°58'20" WEST, A DISTANCE OF 114.35 FEET TO THE POINT OF BEGINNING.

CONTAINING: ±33,032 SQ. FT. OR ±0.758 ACRES.



FRANK ZWOLINSKI, P.L.S.
Colorado License No. 38060
For and on behalf of
Power Surveying Company, Inc.

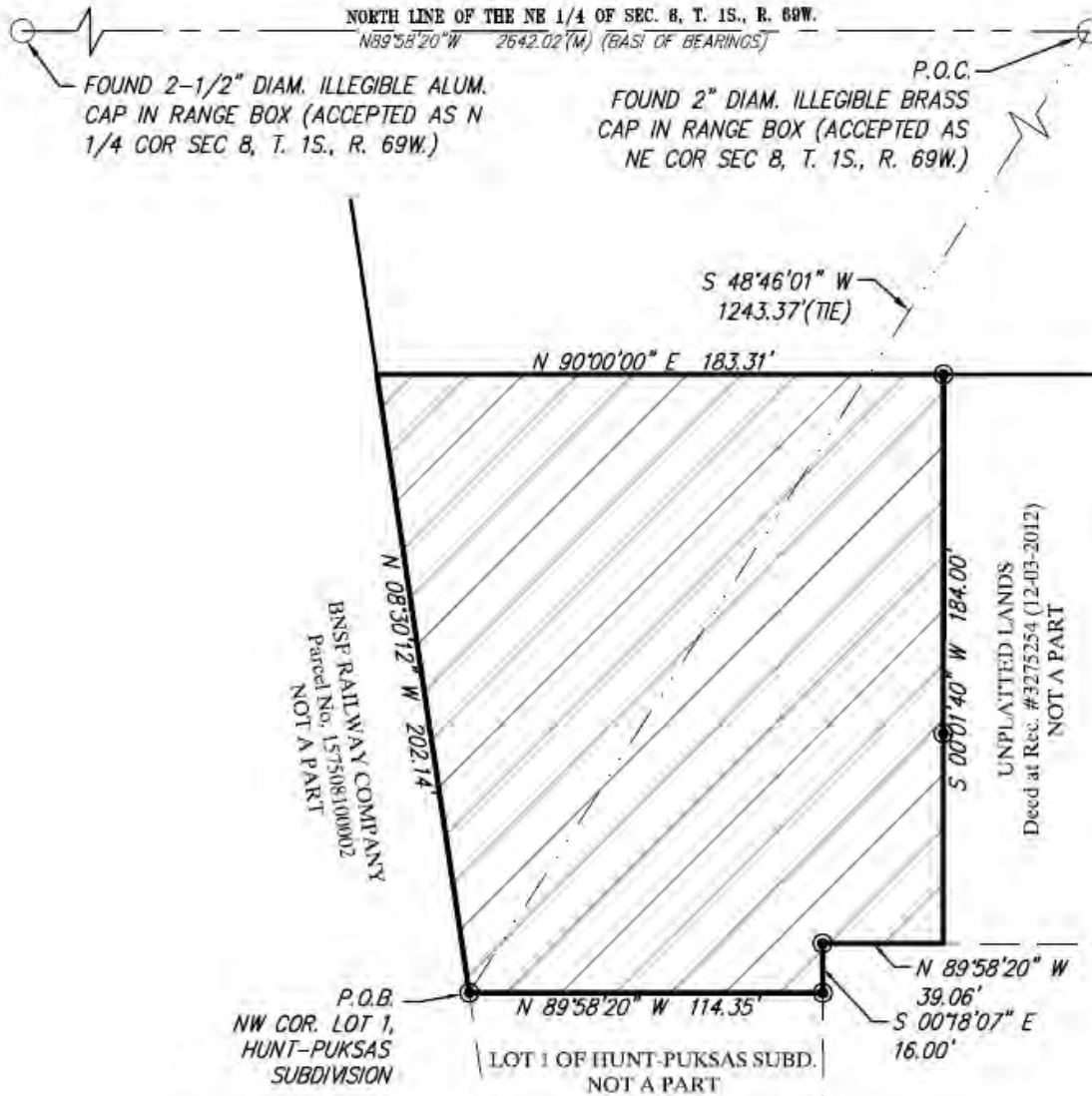


DRAWING BY: MB DATE: 06/14/2022
PROJECT NO. 16-216

EXHIBIT A

EXHIBIT OF LAND DESCRIPTION

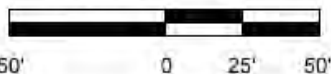
SHEET 4 OF 4



LEGEND

- FOUND MONUMENT AS NOTED
- (M) AS MEASURED
- (R) PER RECORD
- P.O.B. POINT OF BEGINNING
- P.O.C. POINT OF COMMENCEMENT

SCALE: 1" = 50'



POWERTM
 Surveying Company, Inc.

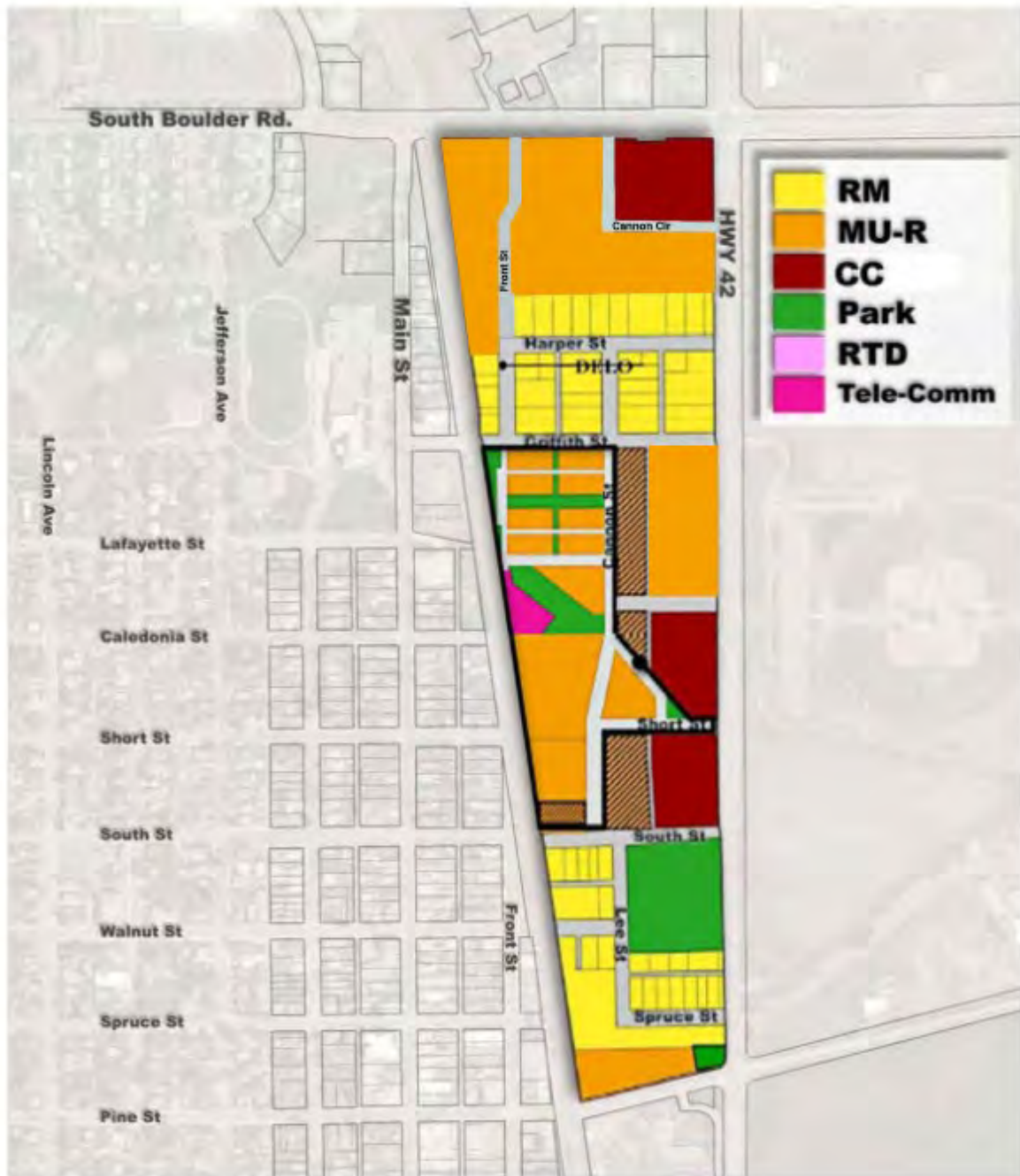
Established 1948

5911 BROADWAY
 DENVER, COLORADO 80221

PH. 303.702.1611
 FAX. 303.702.1699
 WWW.POWERSURVEYING.COM

DRAWING BY: MB DATE: 06/14/2022
 PROJECT NO. 16-216

Exhibit B



**RESOLUTION NO. 10
SERIES 2025**

**A RESOLUTION RECOMMENDING APPROVAL OF A PRELIMINARY PLANNED
UNIT DEVELOPMENT AND PRELIMINARY PLAT TO ALLOW A 188 DWELLING
UNIT AND 13,755 SQUARE FEET OF COMMERCIAL SPACE IN A MIXED-USE
DEVELOPMENT AT 1030, 1042, 1034 AND 1040 SOUTH BOULDER ROAD**

WHEREAS, there has been submitted to the Louisville Planning Commission an application for a preliminary planned unit development to allow construction 188 dwelling unit mixed-use development and 13,755 square feet of commercial space at 1030, 1042, 1034 and 1040 South Boulder Road; and

WHEREAS, there has been submitted to the Louisville Planning Commission an application for a preliminary plat to subdivide the existing property at 1030, 1042, 1034 and 1040 South Boulder Road; and

WHEREAS, a rezoning application is under concurrent review to permit the proposed uses; and

WHEREAS, City staff has reviewed the information submitted and found that, with the six requested waivers and four conditions, the application complies with the Louisville zoning regulations and other applicable sections of the Louisville Municipal Code; and

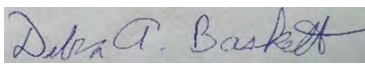
WHEREAS, the Planning Commission has considered the application at a duly noticed public hearing on October 9, 2025, where evidence and testimony were entered into the record.

NOW THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Louisville, Colorado does hereby recommend approval of a preliminary planned unit development and preliminary plat with conditions to allow 188 dwelling-units and 13,755 square feet in a mixed-use development at 1030, 1042, 1034 and 1040 South Boulder Road .

PASSED AND ADOPTED this 9th day of October, 2025

By: 

Steve Brauneis, Chair
Planning Commission

Attest: 

Debra Baskett, Secretary
Planning Commission

Coal Creek Village PUD

Project Narrative

Introduction

Coal Creek Village, (formerly called Coal Creek Station) is a proposed mixed-use development located southwest of the intersection of South Boulder Road (SBR) and Highway 42. The proposed development plan is supported by the City's goals for the Highway 42 revitalization area and is consistent with the intent and purposes of the Mixed-Use Development Design Standards and Guidelines (MUDDSG) as well as the requirements contained in Section 17.14 of the Municipal Code created for mixed-use development.

Site Description

Commercial development exists at the southwest corner of the SBR and Highway 42 intersection. The Coal Creek Village PUD is proposed on vacant property located south and west of the commercial area. The Argentos Empanadas Shop exists near the northwest corner on a separate lot. The BNSF Railroad borders the site on the west and the existing "Little Italy" residential neighborhood is located to the south. The Louisville Sports Complex is located to the east on the other side of Highway 42. The Goodhue Ditch cuts through the property diagonally at the northwest corner and the site slopes to the south with thickets of unmaintained vegetation. No significant natural features exist on the site.

Project Description

The Applicant proposes to develop a vibrant mixed-use project including 13,534 square feet of commercial use adjacent to South Boulder Road along with a unique mix of medium to high density residential development. With over 19,000 vehicle trips per day along South Boulder Road the commercial is expected to do well. The small-scale commercial uses expected to include retail, restaurants, offices and personal service shops would benefit from drive-by traffic and be supported by neighborhood residents.

The site is also well suited to residential development for the following reasons:

- Shopping and Restaurants
There is existing retail and service shops located at the intersection corner. In addition, historic downtown Louisville, with its many restaurants, shops and breweries is located one half mile to the south, easily accessible by car, bicycle or on foot.
- Recreation
Just west of the railroad tracks residents will have trail access to Pirates Park, Lawrence Enrietto Park, Lake Park and eventually the Coyote Run Open Space. The Louisville Sports Complex is located to the east along with acres of open space and an interconnected trail system.

- Schools

Louisville Middle School is located to the west of the railroad tracks within easy walking distance. Centaurus High School is located to the east and is accessible by car or bicycle via trails east of the Louisville Sports Complex.

The Applicant is proposing a wide a variety of housing choices that are architecturally exciting, energy efficient and most of all attainable. Specific product types are described as follows:

- Two 3-story **mixed-use buildings** are proposed to be located along South Boulder Road. Commercial space occupies the 1st floor, with residential units on the 2nd and 3rd floors. The commercial spaces face South Boulder Road and to the interior of the site, creating attractive and inviting architectural space on both sides. Each building contains twenty-four studios, 1- and 2-bedroom units ranging in size from 500-800 square feet. The residential units are served by an elevator that provides for many accessible units. Parking for the commercial uses and residents is provided south of the buildings.
- Two 3-story **multi-family buildings** face Front Street and create an attractive pedestrian-oriented streetscape at the entrance to the neighborhood. These buildings each have twenty-four residential units ranging in size from 500-900 square feet.
- Further south along Front Street **alley-loaded townhomes** continue the architecturally cohesive streetscape. The townhomes are 3-stories with a garage on the first level accessed from the alley. Living and bedroom spaces are located above the garage.
- The **micro townhome condominiums** located south of the existing commercial area form an ideal transition between the existing commercial uses and the existing "Little Italy" residential neighborhood to the south. These unique townhome dwelling units organized as duplexes and triplexes are located on a shared lot and share common amenities including a central park space, benches, dog waste station, bicycle parking and landscaping. These homes at 300-450 square feet are the most attainable homes in the neighborhood.

The proposed street pattern is logical and conforms to the street pattern proposed in the Highway 42 Revitalization Framework Plan. It is designed to be convenient and safe for both motorists and pedestrians. Front Street connects to the existing Front Street located to the south, providing neighborhood continuity. Streets and curb-cuts are aligned where possible and pedestrian crosswalks prioritize the pedestrian.

All the public streets have detached sidewalks and street trees that provide an attractive interconnected pedestrian system throughout the neighborhood. Wherever possible, buildings are located along the streetscape making the walking experience more interesting and comfortable. Parking lots are located behind buildings where possible and attractively screened with a variety of trees, shrubs and ornamental grasses.

Coal Creek Village PUD

Narrative

Park, open space and a variety of site amenities are provided throughout the project. A plaza space between the mixed-use buildings along South Boulder Road provides shade, benches and opportunities for outdoor dining. The Applicant plans to pipe the Goodhue Ditch which runs diagonally through the northwest corner allowing the area to be seeded, enhanced with additional plant material and utilized as a passive recreation space. A sidewalk will provide access to the existing empanada shop. There is a centrally located park that will allow residents to have expansive recreation space without the responsibility of having to maintain a large landscape on their own individual lot/ property. The park is connected to the proposed mixed-use buildings via multiple sidewalk connections.

Small families, young professionals, singles, and older adults that prefer urban living will welcome this innovative community in Louisville. All the housing types are energy efficient utilizing heat pumps, tankless hot water heaters and tight construction. The dwelling units are small making them more energy efficient, easy to maintain and most importantly attainable. The Applicant expects the proposed micro townhome condominiums to be especially popular because they will allow first time buyers to own their own home, an important step in gaining long term financial stability.

The project is planned to be phased. While the design of the project adheres to the majority of the standards and design guidelines contained in the MUDDSG and the Municipal Code, there are a few specific instances where waivers are requested. Narratives detailing the waivers along with justifications are included in this Submittal package.

Conclusion

The design of the project is supported by the Purpose and Intent of the Highway 42 Revitalization Plan and the MUDDSG. As the last major development in the Highway 42 Revitalization Area the project will implement the goals and objectives of the Plan in the following ways:

- Mixed-use development that includes commercial uses and a variety of housing types.
- Provides medium to high density residential development within walking distance of historic downtown Louisville.
- Creates pedestrian connections that are safe, comfortable and interesting.
- Establishes streetscapes that enhance adjacent architecture with detached sidewalks, street trees, and attractive parkways.
- Provides dynamic and sustainable architecture that will complement existing development within the Revitalization Plan area.
- Offers diverse product choices that are attractive, energy efficient and attainable for both buyers and renters.

- Provides publicly accessible parks, natural areas and urban plaza space that include seating, shade, seasonal plantings, outdoor dining opportunities, and doggie stations.
- Provides a comfortable land use transition between the existing Little Italy neighborhood and the commercial area to the north.

In conclusion, we believe the commercial uses proposed along South Boulder Road are consistent with the commercial use proposed in the original Revitalization Plan. The urban-style housing offered in this project at 16.5 DU/AC is well above the minimum density requirement of 12 DU/AC. The medium to high density proposed will ensure the success of the commercial uses and provide residents with a variety of housing choices to rent or to buy. It is the kind of housing described in the Revitalization Plan for this area and is needed in Louisville now more than ever.

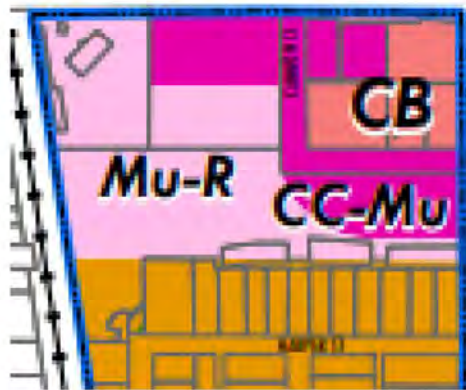
Coal Creek Village

Markel Homes

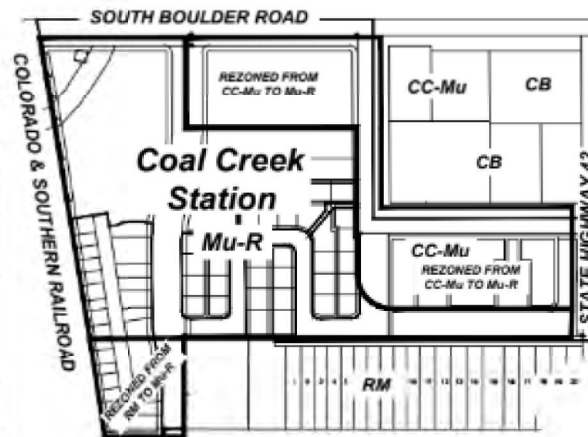
Request to Rezone

August 2023

The Applicant is requesting that two areas of the City's existing zoning map be changed. The existing zoning and the proposed changes are depicted on the graphics below. Land to the west of Cannon Circle and land to the south of Cannon Circle, connected by Cannon Circle, are proposed to be rezoned from CC-Mu to Mu-R. In addition, the land at the extreme southwest corner of the property is proposed to be rezoned from RM to Mu-R. The proposed changes are consistent with the proposed revisions to Exhibit A in the **Highway 42 Revitalization Area Framework Plan** (see separate request to revise Exhibit A).



Existing Zoning



Proposed Zoning

Proposed Rezoning Criteria

The rezonings allow for commercial uses along South Boulder Road as originally intended and expands areas of the site to be utilized for higher density residential development. Most small-scale commercial establishments, like restaurants, personal service shops and offices are allowed within the Mu-R district. Since these are the types of commercial uses that the Highway 42 Revitalization Plan envisioned for the area, this proposed rezoning will not result in a loss of commercial use, but will significantly increase residential density in the area to ensure success of the proposed commercial uses.

The City's Municipal Code lists four criteria for considering a rezoning (17.44.050):

1. The land to be rezoned was zoned in error and as presently zoned is inconsistent with the policies and goals of the city's comprehensive plan;

2. The area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area;

3. The proposed rezoning is necessary in order to provide land for a community-related use which was not anticipated at the time of the adoption of the city's comprehensive plan, and such rezoning will be consistent with the policies and goals of the comprehensive plan; or

4. The rezoning would only permit development which, if evaluated as a proposed annexation under the annexation standards and procedures codified in [title 16](#), would qualify for annexation.

We believe the proposed rezonings associated with the Coal Creek Village PUD meet Criteria 2 and 3, for the following reasons:

2. The area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area;

We believe that **significant change** has occurred both in the vicinity of the site and in the housing marketplace.

- i. The property was rezoned in 2007 to fit a proposed development plan that was never approved. The result is the existing zoning now dictates a specific design that matches what was proposed in 2007 but never carried forward. The fact that the land was rezoned based on a particular development plan, Coal Creek Station, that never happened, makes it difficult for subsequent developers to propose different, and perhaps more successful plans.
- ii. Major improvements to State Highway 42 and the potential development of a commuter rail station in Louisville were the impetus for the City to create mixed-use zoning in the Highway 42 Revitalization Area. A commuter rail station would significantly increase the number of people arriving to and leaving from the neighborhood. Those additional people would all be potential customers for commercial uses. In reality though, the commuter rail station has not come to fruition. The absence of a commuter rail station undeniably lessens the viability of the site for stand-alone commercial development.
- iii. The prime commercial property, based on visibility, is located at the intersection of South Boulder Road and State Highway 42. At this point in time, the site is both under-developed and aging. We believe that additional housing in the neighborhood will spur the redevelopment of the corner in years ahead.

- iv. The need for housing inventory across all price points has grown significantly in recent years. The housing crisis in Boulder County is well documented and was only exacerbated in recent years by market conditions and the tragic Marshall Fire. This plan seeks to bring units to the market across a variety of price points and can fill the needs of current and future residents.

3. The proposed rezoning is necessary in order to provide land for a community-related use which was not anticipated at the time of the adoption of the city's comprehensive plan, and such rezoning will be consistent with the policies and goals of the comprehensive plan;

According to the Urban Land Institute, the industry definition of attainable, for-sale housing is unsubsidized, profitable housing developments that meet the needs of those with incomes between 80% and 120% of the Area Median Income. ULI's latest Emerging Trends in Real Estate report provides recommendations and strategies for creating more attainable housing. Coal Creek Village utilizes several of these recommendations including:

- Offering innovative product types
- Combining product types in developments
- Creating smaller homes
- Creating more middle income attached housing

The report concludes with *"It is as important as ever for the industry to build all types of housing, and especially to find ways to build nonsubsidized housing for middle-class buyers," says the report. "Ultimately, this type of housing – attainable housing – will relieve the current downward pressure on the market that has kept renters from becoming homeowners and has made housing increasingly unaffordable for Americans at lower income levels."*

These rezonings efforts are needed to provide more housing inventory than is possible without the them, thus making the designs more efficient and the prices more attainable. Essentially the residential units proposed above ground floor commercial uses along South Boulder Road would not be possible under the current zoning. We believe that the lack of housing is a community-related use that was not as extreme when the Comprehensive Plan was adopted.

Applicable City of Louisville Plans and Policies

Simply stated, the Coal Creek Village project cannot move forward without the proposed rezoning. The rezoning is critical to allowing the vertical mixed-use proposed along South Boulder Road (SBR). The residential above supports the commercial use and

increases the overall density on the site. Higher densities make site amenities more affordable and helps to create a sense of community. The proposed rezoning also creates a better land use transition for the Little Italy neighborhood. The proposed rezoning allows the developer to create a mixed-use project that we believe will be both innovative and successful. The following City Plans and Policies support the proposed rezoning and the project.

2013 Comprehensive Plan (sections relevant to SBR and Highway 42)

The 2013 Comprehensive Plan clarifies and illustrates the City's expectations regarding land use function, form and character. The Framework proposed by the Comprehensive Plan puts the Coal Creek site in the "urban" development pattern, defined as follows:

Streets are interconnected and form small walkable blocks. Residences are alley-loaded and alternative modes of travel including walking, biking and transit are viable and encouraged. Vehicular speeds are reduced, and development parcels are smaller. Buildings are oriented to the street and are designed with human scale in mind. Civic and public infrastructure is integrated, multi-purpose and the landscape is formal.

The comprehensive Plan further separates Louisville into development types – Centers, Corridors, Neighborhoods, Special Districts and Parks/Open Space. The Coal Creek Village project falls within a Corridor, specifically the SBR Corridor. The following description of anticipated land use development in the Corridor describes Coal Creek Village as well.

"As properties redevelop in this area, attention will be paid to introducing a more connected street grid creating smaller parcels which relate to one another in an urban and walkable mixed-use environment. Commercial land uses and higher density residential uses will concentrate along the South Boulder Road and Highway 42 intersection while lower density residential uses should locate away from the main arterials to provide a transition to the existing neighborhoods".

The proposed rezoning and development plan for Coal Creek Village are supported by the following policies related to the Highway 42 and SBR Corridor:

1. *Include a mix of low to higher density residential and commercial neighborhood services.*
The rezoning would allow a mix of low to higher density housing along with development of commercial neighborhood services.
2. *Transition from higher intensity uses at the core of the center to lower density uses at the neighborhoods on the periphery of the center*
Development will transition from high intensity along SBR to lower intensity adjacent to the existing Little Italy neighborhood.

3. *To encourage the economic health of existing shopping centers, leverage public investment for infrastructure improvements and business assistance packages to stimulate private redevelopment.*
New commercial uses and additional residential development in the neighborhood will help existing commercial development on the corner become more successful.
4. *Focus on community retail opportunities at the intersection of South Boulder Road and HWY 42 which serve a smaller trade area than those found at a regional retail center.*
The commercial development proposed along SBR will focus on small scale shops providing goods and services to the local neighborhood.
5. *Introduce new roadway network in the center to enable the area to operate as a connected urban center. Medium to high density residential areas should be located with proximity to and pedestrian access to public transportation, neighborhood parks and trail connections and commercial services.*
New roadways that connect the various component of the neighborhood will be developed.
6. *As redevelopment occurs, introduce roadway network to enable a variety of redevelopment possibilities. The City should cooperate with the City of Lafayette and Boulder County to secure access between Hecla Lake, Waneka Lake, and Coal Creek.*
The proposed roadway network will support the existing and proposed commercial development.
7. *Create a high degree of trail and open space connectivity reinforcing the east/west connectedness of a regional trail system to Hecla Lake and north/south connectedness to Downtown and Coal Creek regional trail.*
A system of detached sidewalks and connecting walkways link the proposed neighborhood to trail systems located to the west and to the east across Highway 42 as well as to Downtown.
8. *Explore realigning Main Street on the western edge of the urban center to consolidate access near the railroad tracks and introduce a Gate way to the HWY 42 and South Boulder Road urban center and Downtown Louisville.*
The proposed rezoning would not affect the City's ability to realign Main Street.
9. *Connect the Highway 42 and South Boulder Road Urban Center to the rest of Louisville by the introduction of new roads, trail connections, and pedestrian crossings of the railroad tracks, South Boulder Road, and HWY 42.*
The extension of Front Street will provide a needed connection between SBR and Downtown Louisville.

10. Encourage development of new commercial retail services in the Urban Center where the location and scale of such development is consistent with design standards developed for the HWY 42 corridor and the character of the immediate neighborhood.

The proposed rezoning will allow the development of commercial uses along SBR with housing above that will be in scale and in character with the neighborhood.

11. Louisville Plaza shopping center should not include any Mixed-Use streets.
Not applicable.

Transportation Master Plan

The City's Transportation Master Plan (TMP) completed in 2019 describes four policies that support the TMP goals. The design and development of Coal Creek Village will help advance these policies and help the City achieve its transportation goals.

Policy 1: Great Streets

Great streets are those designed to be safe and accessible for all users regardless of ability, age, or mode. The streets in Coal Creek Village are engineered and designed to be safe, functional and attractive. Detached sidewalks keep the pedestrian a safe distance from vehicular traffic and crosswalks provide increased safety at points of conflict. Handicap ramps are provided at all street crossings. Sidewalks provide walkable access to all areas of the neighborhood and connect the pedestrian to the larger community at its edges along SBR, Highway 42 and Front Street.

Policy 2: Guidelines for Walkable and Bikeable Places

Coal Creek Village is designed to be walkable and bikeable. The mixed-use development is located within walking and biking distance of schools, employment opportunities, shopping, and recreation. The neighborhood itself is designed to encourage walking and biking by providing safe streets with detached sidewalks and street trees. Alley-loaded residential products eliminate driveways and enhance the walking experience along streets. Green spaces, parks, plazas are provided throughout the neighborhood, making it a comfortable place to walk around and explore.

Policy 3: Transit Oriented Development Guidelines

Residents at Coal Creek Village will have access to bus stops at SBR and Garfield Street and along Main Street at Griffith Street.

Policy 4: Applications for Technology

The residential projects at Coal Creek Village will have Homeowner Associations that can work the City to publicize City programs like "safe routes to school" and "ride share programs" designed to make walking and biking safer and more fun. Smart technology can be used to disseminate information to neighborhood residents, easily and quickly.

South Boulder Road Small Area Plan

The South Boulder Road Small Area Plan (Plan) provides general guidelines for development in the SBR corridor and suggests design concepts for new development within the corridor. We believe that Coal Creek Village exemplifies the Community Design Principles and Placemaking Concepts contained in the Plan as outlined below:

Community Design Principles

- Providing places to go and to stay
Coal Creek Villages provides spaces that encourage gathering and interaction. Retail shops along SBR with entrances front and back have a central outdoor plaza with seating and shade. A natural area is planned behind the existing coffee shop on SBR as well. In addition to tree lined streets and detached sidewalks there are several green, park-like spaces provided throughout the community that serve the residents with amenities such as play equipment, benches, doggie stations, lawns and plants that provide seasonal interest.
- Easy to get to and easy to get around
The proposed project provides vehicular links to the larger community at four existing access points. Two on SBR, one on to Highway 42 and one connecting to Front Street and linking the project to Downtown Louisville. Safe and convenient pedestrian circulation is provided throughout the community along tree-line streets with detached sidewalks. Pedestrians can walk to nearby Louisville Middle School and to Downtown.
- Knitting the community together
Tree-lined sidewalks are provided along SBR and Hwy 42 frontages. Community residents can cross SBR at Main Street just west of the site and also at the HWY42/SBR intersection. Highway 42 can be crossed at SBR and at Short Street approximately 1/3 mile south of the project.
- Development that contributes
Coal Creek Village contributes to the community by providing an appropriate mix of commercial development and housing that targets middle income residents. The proposed buildings are both architecturally exciting and energy efficient.

Placemaking Concepts

- Parking rooms
The proposed parking lot is located to the interior of the site and designed to be well landscaped and pedestrian friendly.

- Traditional streets
A network of public streets and private drives knit the community together. Streets are enhanced with detached sidewalks and periodic green spaces which promote walking around the neighborhood. Alley-loaded residential projects contribute to the walkability of the neighborhood because of fewer driveways to cross.
- Pedestrian refuges
The project provides a pedestrian refuge along SBR between the two mixed-use buildings. A well landscape plaza with street furniture is provided for shoppers and pedestrians alike.
- Views into the community
Views into the community occur at three locations along SBR. West of the existing coffee shop a shaded natural open space gives a peek into the project. Front Street with detached sidewalks lined with street trees offers an inviting view into the neighborhood and the plaza between the mixed-use buildings provides a view into the central green space.

Highway 42 Framework and Comprehensive Plan Amendment

The design of the project is supported by the Highway 42 Revitalization Area Framework Plan and the MUDDSG. As the last major development in the Highway 42 Revitalization Area the project will implement the goals and objectives of the Plan in the following ways:

- Mixed-use development that includes commercial uses and a variety of housing types.
- Provides medium to high density residential development within walking distance of historic downtown Louisville.
- Creates pedestrian connections that are safe, comfortable and interesting.
- Establishes streetscapes that enhance adjacent architecture with detached sidewalks, street trees, and attractive parkways.
- Provides dynamic and sustainable architecture that will complement existing development within the Revitalization Plan area.
- Offers diverse product choices that are attractive, energy efficient and attainable for both buyers and renters.
- Provides publicly accessible parks, natural areas and urban plaza space that include seating, shade, seasonal plantings, outdoor dining opportunities, and doggie stations.

- Provides a comfortable land use transition between the existing Little Italy neighborhood and the commercial area to the north.

Conclusion

In conclusion, we believe the proposed rezonings are necessary and desirable because of changes in the area and because the proposed project would help alleviate a community need by providing more attainable housing, two of the criteria for consideration of rezoning. The Coal Creek Village project is overwhelmingly supported by the City's Plans and Policies that have created the community vision for Louisville. The proposed rezoning is in alignment with the regulatory requirements defined in the Municipal Code Section 17.14 Mixed Use Zone Districts specifically created to guide development in the Highway 42 Revitalization Area. By supporting the proposed rezonings the decision-makers will be allowing Coal Creek Village to move forward.

Coal Creek Village PUD

Requested Waivers

Coal Creek PUD conforms to the majority of the standards and guidelines created for the City of Louisville and specifically for the Highway 42 Revitalization Area, however, there are some instances where conforming to the standard would not be possible because of existing conditions or, would not serve the best interest of the City. We believe that in each case that a waiver is requested, the proposed design is superior to a design that would strictly adhere to the standard. The City of Louisville anticipated this situation and included the following rule in the Municipal Code:

"General rule allowing waiver or modification of standards. Unless otherwise limited by this section, the city may waive or modify all applicable stated Mixed Use Development Design Standards and Guidelines stated in this chapter, or other generally applicable design standards and provision of this [Title 17](#), if the decision-making body finds that the proposed development represents an improvement in site and building design over that which could be accomplished through strict compliance with otherwise applicable district standards. Unless specifically waived or modified during the review and approval process, the zoning, use, bulk, dimensional, development, and design standards stated in this chapter and the Mixed Use Design Standards and Guidelines shall apply."

The Applicant respectfully requests the following Waivers:

Waiver Number 1

City Document: Implementation of the Highway 42 Revitalization Area Plan - Appendix A
Mixed Use Development Design Standards and Guidelines (MUDDSG)

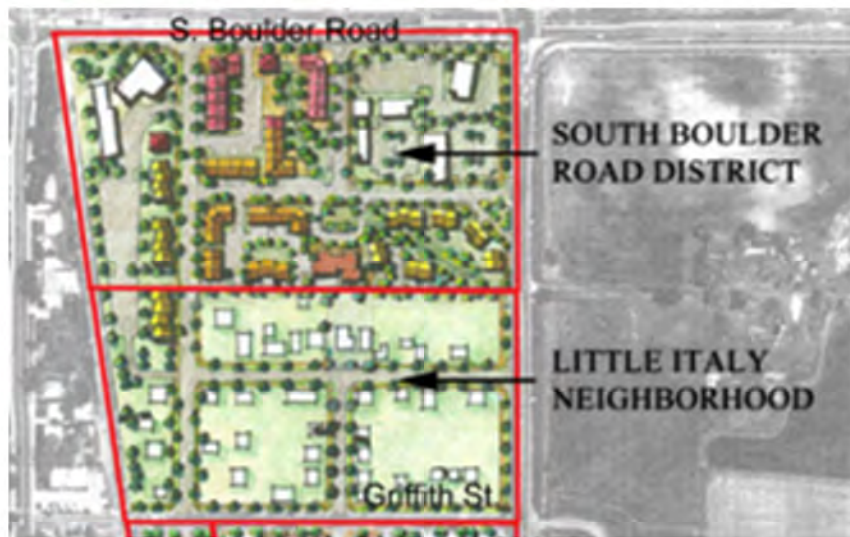
Requirement: MUDDSG 1.3.A.1 East and west sides of blocks to be 270-320 feet.
MUDDSG 1.3.B.1 North and south sides of blocks to be 300-400 feet.

Proposed:	Block One	<u>East and west sides 146 feet</u> North and south sides 321 feet
	Block Two	East and west sides 293 feet North and south sides 333 feet
	Block Three	<u>East and west sides 443 feet</u> North and South side 155 feet
	Block Four	<u>East and west sides 221 feet</u> <u>North and south sides 295 feet</u>
	Block Five	<u>East and west sides 332 feet</u> <u>North and south sides 246 feet</u>

Justification:

The intent of the Street and Block Design Standards is to encourage a synergistic mix of uses within the MU-R and CC Districts, complement existing Downtown development, to disperse and distribute traffic to multiple access points and to create a pedestrian-oriented and pedestrian friendly district.

Furthermore *"Street alignment within the MU-R and CC Districts shall generally conform to the street pattern adopted in the Highway 42 Plan to the maximum extent practicable."*



From the Highway 42 Revitalization Area Framework Plan

The street layout and resulting block sizes are largely determined by existing access points along South Boulder Road and Highway 42. In addition, the Front Street alignment connecting to the south is consistent with the Highway 42 Revitalization Area Framework Plan depicted above. The fact that the site is bordered by the Colorado and Southern Railroad on the west further puts limitations on block size.

While not all the specific block dimensions are consistent with requirements, the street layout and blocks do meet the intent of the MUDDSG. Traffic is dispersed and distributed in a logical fashion consistent with the Highway 42 Framework Plan shown above. The site plan proposes sidewalks and tree lawns along all public streets and provides for safe, convenient and attractive pedestrian connections throughout.

Waiver Number 2

City Document: Implementation of the Highway 42 Revitalization Area Plan - Appendix A
Mixed Use Development Design Standards and Guidelines (MUDDSG)

Requirement: **MUDDSG 5.4. Public Sidewalk Design Standards**

B. In the MU-R and CC Districts, all public sidewalks shall be a minimum of ten (10) feet wide incorporating tree planting within the right-of-way. The right-of-way shall be landscaped with street trees and other living plant material or, as an alternative, tree grates for street trees combined with decorative paving and/or moveable planters may be utilized.

Proposed: Along Front Street and Canon Circle, a 5-foot-wide detached sidewalk with an 8-foot parkway is provided.

Justification:

Coal Creek PUD meets the pedestrian connectivity standards stated in the MUDDSG by providing well-defined pedestrian connections through out the site and to off-site locations. Walkways are designed to be direct and efficient creating opportunities for residents to walk to commercial areas along SBR and Hwy 42, as well as to on-site parks, open space and amenities. The public sidewalks are all detached with adjacent tree lawns. We believe the proposed 5-foot and 8-foot sidewalk widths will be adequate for the numbers of pedestrians anticipated and will provide a more comfortable human scale than 10-foot sidewalks would.

The proposed sidewalk widths are also consistent with recommendations of the National Association of City Transportation Officials. *"The pedestrian through zone is the primary, accessible pathway that runs parallel to the street. The through zone ensures that pedestrians have a safe and adequate place to walk and should be 5–7 feet wide in residential settings and 8–12 feet wide in downtown or commercial areas."* (NACTO)

Waiver Number 3

City Document: **Municipal Code 17.14.060**
 Table 3: Mixed Use Zoning District Dimensional and Bulk Standards

Requirement: **Minimum Lot Width 40 feet**

Proposed: **Townhome lots vary from 24'-6" to 32 feet wide.**

Justification:

The proposed townhomes are designed for residents that desire urban scale living, that is attractive, low maintenance, energy efficient, architecturally exciting and attainable. By reducing lot size the developer can lower the cost of the dwelling unit, making it more attainable. densities that utilize public infrastructure and land more effectively, helping to lower housing costs as well. In Smaller lot sizes also help to create more efficient addition, small lots fit the lifestyle of active adults and are preferred by many urban dwellers. A few examples of contemporary townhome design that utilize the narrower lot width include the following communities: North End (Louisville), Northfield Commons (Boulder), and Dakota Ridge – Northbriar (Boulder).

Waiver Number 4

City Document: Municipal Code 17.14.060
Table 3: Mixed Use Zoning District Dimensional and Bulk Standards

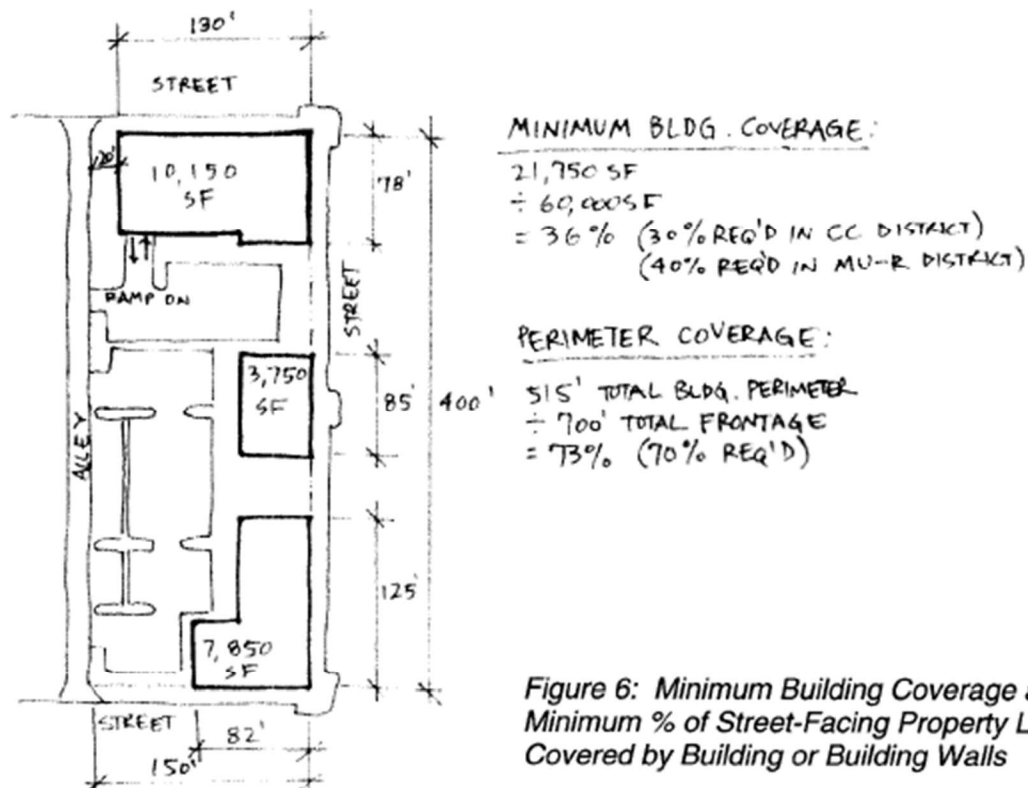
Requirement: Minimum Building Coverage 40%

Proposed: 21.2%

Justification:

The dimensional and bulk standards are intended to encourage and allow more "urban scale" development within the Highway 42 Revitalization Area consistent with planning goals for that area. Compared to other commercial and residential development allowed in Louisville, "urban scale" generally means taller buildings like those found in downtown Louisville, greater lot coverage, and buildings pushed close to the front property line.

We believe that Coal Creek Village PUD accomplishes the intent of the standard. Most of the buildings in the development are 3-stories tall and are brought close to the front property line with parking enclosed in garages or located to the back side. However, it's hard to imagine how the proposed project could achieve 40% building coverage without providing structured parking. Figure 6 (below) was provided to help clarify the standard. The example illustrates 1-story buildings, and it only achieves 36% coverage. The proposed mixed-use buildings (3 & 4) and the multi-family buildings (1&2) are 3-story buildings and require more parking than a 1-story building would. Additional parking means more circulation drives and the additional pavement requires additional stormwater detention. The overall residential density of 16.5 DU/AC necessitates the need for additional site amenities, parks and open space. Additionally, Figure 6 alludes to the use of structured parking to help achieve the standard – but the cost to construct structured parking is so great that the use of structured parking would remove the middle-class attainability aspect of the proposed development. Given the nature of the proposed mixed-use project, we believe achieving 40% lot coverage is not necessary nor practical as demonstrated by Figure 6.



Waiver Number 5

City Document: **Municipal Code 17.14.060**
 Table 3: Mixed Use Zoning District Dimensional and Bulk Standards

Requirement: 20-Foot Minimum Setback from Rear Property Line

Proposed: Townhome and Micro Cottages rear yard setbacks from 6-20 feet

Justification:

The townhome and micro cottages proposed for Coal Creek PUD are designed for residents that desire urban scale living, that is attractive, low maintenance, energy efficient, architecturally exciting and attainable. Smaller back yards that still provide opportunities for outdoor dining and relaxation without the need to mow or water a lawn fit the lifestyle of many urban dwellers. Smaller back yards also help create more efficient densities that utilize public infrastructure and land more effectively, helping to lower housing costs.

Waiver Number 6

City Document:

Municipal Code 17.14.060

Table 3: Mixed Use Zoning District Dimensional and Bulk Standards

Requirement:

Minimum 70% of Street Facing Property Lines must contain a Building or Building Wall

Proposed:

58.6%

Justification:

The standard is intended to support a pedestrian friendly environment along the district's streets. Buildings pushed closer to the street edge provide a sense of enclosure for the pedestrian, making the district a more inviting place to walk. The 70% is a very high standard that is difficult to achieve particularly when site amenities and landscaped open space is left out of the equation. We believe that a variety of building types and scales that are interspersed with a plaza, park and landscaped open space create a diverse and pleasant streetscape for pedestrians to enjoy. The walking experience proposed throughout Coal Creek Village PUD is further enhanced by street trees that are provided in tree lawns along all the public streets.

Additionally, the City of Louisville has adopted Appendix D of the International Fire Code which has a component related to dead-end fire apparatus access on roads within a new development. This means that a fire truck access path shall go no further than 150' without a means to turn around or exit the access road. On the site plan, this creates the need for additional access points along public streets to comply with this IFC requirement and thus reduces the percentage of street facing property lines that contain a building or building wall.

TOTAL BUILDING FRONTAGE/COVERAGE CALCULATIONS				
STREET	APPLICABLE STREET FRONTAGE(FT)	TOTAL BUILDING FRONTAGE(FT)	% BUILDING FRONTAGE	TOTAL BUILDING COVERAGE(SF)
SOUTH BOULDER ROAD	543	304	56.0	80070
EAST OF FRONT STREET	262	216	73.2	
WEST OF FRONT STREET	248	88	35.5	
FRONT STREET	1240	825	66.5	
EAST SIDE	533	297	55.8	
WEST SIDE	708	528	74.6	
CANNON CIRCLE	692	320	46.2	
NORTH/ SOUTH LEG	383	170	46.8	
EAST/ WEST LEG	420	150	45.6	
HIGHWAY 42	147	90	61.2	
TOTALS	5097	2988	58.6 *	80070
TOTAL % BUILDING COVERAGE (USING TOTAL NET SITE ACREAGE 8.66 AC)				21.2% *



COAL CREEK VILLAGE PLANNED UNIT DEVELOPMENT

COAL CREEK STATION FILING NO.4, LYING WITHIN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH,
RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO.

SIGNATURE BLOCKS

OWNERSHIP SIGNATURE BLOCK

The undersigned as the owner of the lands described herein, hereby agrees on behalf of itself, and its heirs, successors and assigns to develop and maintain the property described herein in accordance and compliance with this approved plan and the Louisville Municipal Code.

COAL CREEK VILLAGE LLC

Witness my/our hand(s) and seal(s) this ____ day of _____, 20__.

BY: _____
Coal Creek Village LLC
Michael Marhal, President

SEAL:

Notary Signature

MY COMMISSION EXPIRES _____

CITY COUNCIL CERTIFICATE
Approved: this ____ day of _____,
20__ by the City Council of the City of
Louisville, Colorado.

Resolution No. _____ Series _____
(City Seal)

Mayor Signature

City Clerk Signature

PLANNING COMMISSION CERTIFICATE

RECOMMENDED APPROVAL THIS ____ DAY OF _____
20__ BY THE PLANNING COMMISSION OF THE CITY OF
LOUISVILLE, COLORADO.

RESOLUTION NO. _____ SERIES _____

GOODHUE DITCH & RESERVOIR COMPANY

APPROVED THIS ____ DAY OF _____
20__.

SIGNATURE OF REPRESENTATIVE

VICINITY MAP



SITE SUMMARY

EXISTING ZONING: CC-MU, MU-R & RM
PROPOSED ZONING: MU-R
TOTAL GROSS SITE AREA: 495,659 SF (11.378 ACRES)
TOTAL COMMERCIAL AREA: 13,534 SF (1ST FLOOR OF BUILDINGS 3 & 4, BLOCK 4)
TOTAL RESIDENTIAL UNITS: 188
GROSS DENSITY*: 16.5 DU/ACRE

*AREA OF DENSITY CALCULATION INCLUDES PLATTED ACREAGE AND $\frac{1}{2}$ THE AREA OF ANY ADJACENT STREET PER SECTION 17.14.060 C.1.A

LEGAL DESCRIPTION

A TRACT OF LAND IN THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF BLOCK 1, CALEDONIA PLACE, ACCORDING TO THE RECORDED PLAT; THENCE SOUTH 330 FEET TO THE TRUE POINT OF BEGINNING; THENCE WEST 967 FEET, MORE OR LESS TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF THE COLORADO AND SOUTHERN RAILROAD; THENCE SOUTHEASTERLY ALONG SAID EAST RIGHT-OF-WAY LINE TO THE SOUTH LINE OF BLOCK 4 IN SAID CALEDONIA PLACE; THENCE EAST, ALONG THE SOUTH LINE OF BLOCK 4 IN SAID CALEDONIA PLACE TO THE NORTHERLY RIGHT-OF-WAY LINE OF THE BEAUMINE NO. 1 SPRING; THENCE EASTERLY, ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF SAID BEAUMINE NO. 1 SPRING TO A POINT ON THE EAST LINE OF BLOCK 6 IN SAID CALEDONIA PLACE; THENCE NORTH, ALONG THE EAST LINE OF BLOCK 6 AND ALONG THE EAST LINE OF BLOCK 1, IN SAID CALEDONIA PLACE, 289 FEET MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF THE NORTH 1/2 OF VACATED HARPER STREET LYING ADJACENT THERETO, AS VACATED IN ORDINANCE RECORDED JANUARY 13, 1981 UNDER RECEPTION NO. 430385 AND RECORDED JANUARY 21, 1981 UNDER RECEPTION NO. 431497.

EXCEPTING THEREFROM THAT PART THEREOF DESCRIBED IN BOOK 848 AT PAGE 588 AND EXCEPTING ANY PORTION PLATTED AS COAL CREEK STATION FILING NO. 1 AND EXCEPTING THAT PORTION DESCRIBED AND RECORDED FEBRUARY 11, 2015 UNDER RECEPTION NO. 328868, AND EXCEPTING ANY PORTION LYING WITHIN THE ROBERT DI GIACOMO ADDITION TO THE TOWN OF LOUISVILLE, CONTAINING 440,608 SQUARE FEET OR 10.115 ACRES OF LAND, MORE OR LESS.

A PORTION OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER (NE 1/4) FROM WHENCE THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER (NE 1/4) BEARS NORTH 89°02'30" WEST A DISTANCE OF 284.2 FEET, WITH ALL BEARINGS HEREIN RELATED THERETO; THENCE ALONG THE EAST LINE OF SAID NORTHEAST QUARTER (NE 1/4), SOUTH 89°18'01" EAST, 3030 FEET TO THE SOUTH LINE OF SOUTH BOLDER CANYON CIRCLE; AND BEING THE POINT OF BEGINNING.

THENCE ALONG SAID WEST LINE OF CANYON CIRCLE, SOUTH 89°17'00" EAST, 286.01 FEET TO A POINT OF INTERSECTION WITH THE SOUTHWEST CORNER OF CANYON CIRCLE.

THENCE ALONG SAID WEST LINE, SOUTH 89°02'30" WEST, 425.02 FEET TO THE WEST LINE OF NORTH BETH STREET.

THENCE ALONG SAID WEST LINE, SOUTH 89°18'01" EAST, 196.99 FEET TO THE NORTHEAST CORNER OF THE ROBERT DI GIACOMO SUBDIVISION; SAID POINT ALSO BEING ON THE NORTH LINE OF A 30 FOOT WIDE PUBLIC ALLEY.

THENCE ALONG SAID NORTH LINE, NORTH 89°02'30" WEST, 724.89 FEET TO THE NORTHEAST CORNER OF A PARCEL OF LAND DESCRIBED AND CONVEYED IN THAT CERTAIN QUIT-CLAIM DEED RECORDED DECEMBER 14, 2014 AT RECEPTION NO. 327554.

THENCE ALONG THE WEST LINE OF SAID PARCEL, SOUTH 89°10'40" WEST, 194.00 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL; SAID POINT ALSO BEING ON THE NORTH LINE OF HARPER STREET.

THENCE ALONG SAID NORTH LINE, NORTH 89°02'30" WEST, 30.08 FEET TO A POINT OF INTERSECTION WITH THE WEST LINE OF FRONT STREET.

THENCE ALONG SAID WEST LINE, SOUTH 89°17'00" EAST, 84.80 FEET TO A POINT OF INTERSECTION WITH THE NORTH LINE OF LOT 1 OF PLANT PUNKAS SUBDIVISION.

THENCE ALONG SAID NORTH LINE, NORTH 89°02'30" WEST, 114.58 FEET TO A POINT ON THE EAST LINE OF THE B.N.S.F. RAILROAD RIGHT-OF-WAY;

THENCE ALONG SAID EAST LINE THE FOLLOWING BEING (7) COURSES:

1. NORTH 08°30'12" WEST, 471.84 FEET TO A POINT;

2. NORTH 08°26'40" WEST, 61.59 FEET TO A POINT;

3. NORTH 08°32'00" WEST, 75.21 FEET TO A POINT;

4. NORTH 08°23'12" WEST, 43.30 FEET TO A POINT;

5. NORTH 08°49'41" WEST, 43.30 FEET TO A POINT;

6. NORTH 10°34'38" WEST, 43.30 FEET TO A POINT;

7. NORTH 11°44'18" WEST, 15.51 FEET TO A POINT ON THE SOUTH LINE OF SOUTH BOULDER ROAD.

THENCE ALONG SAID SOUTH LINE THE FOLLOWING THREE (3) COURSES:

1. SOUTH 89°02'30" WEST, 286.10 FEET TO A POINT;

2. NORTH 00°17'50" WEST, 30.30 FEET TO A POINT;

3. SOUTH 89°02'30" WEST, 316.80 FEET TO THE POINT OF BEGINNING.

CONTAINING 440,608 SQUARE FEET OF 10.115 ACRES OF LAND, MORE OR LESS.

LAND USE SUMMARY

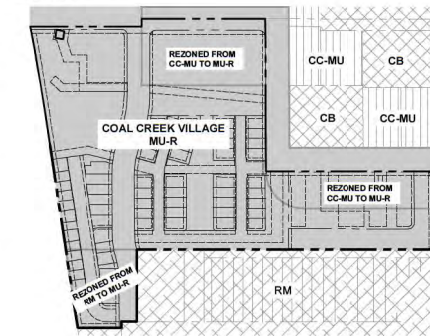
AREA	AREA (SF)	AREA (AC)	USE
OUTLOT A	25,120	0.58	PRIVATE ROAD, DRAINAGE, PUBLIC UTILITY & MAINTENANCE, LANDSCAPE, ACCESS EASEMENT
OUTLOT B	53,827	1.24	PRIVATE ROAD, DRAINAGE, PUBLIC UTILITY & MAINTENANCE, LANDSCAPE, ACCESS EASEMENT
OUTLOT C	21,056	0.48	DRAINAGE, UTILITY, LANDSCAPE, PEDESTRIAN ACCESS, PARK
OUTLOT D	26,318	0.60	PRIVATE ROAD, DRAINAGE, UTILITY, LANDSCAPE, PEDESTRIAN ACCESS, EASE
ROW DEDICATION	53,689	1.23	PUBLIC STREETS

SHEET INDEX

Sheet Number	Sheet Title	Sheet Number	Sheet Title
1	COVER SHEET	23	HYDROZONE PLAN
2	SITE PLAN DATA AND NOTES	24	TREE INVENTORY PLAN
3	SITE PLAN	30	TREE INVENTORY
4	SITE PLAN ENLARGEMENT	31	FENCING PLAN
5	SITE PLAN ENLARGEMENT	32	SITE DETAILS
6	SITE PLAN ENLARGEMENT		
7	PEDESTRIAN CIRCULATION PLAN		
8	PLANNING STREET SECTIONS AND TYPICALS		
9	PARKING PLAN		
10	MICRO TOWNHOME ELEVATIONS		
11	MULTI-FAMILY & MIXED-USE ELEVATIONS		
12	ALLEY LOADED TOWNHOME ELEVATIONS		
13	ALLEY LOADED TOWNHOME ELEVATIONS		
14	FRONT LOADED TOWNHOME ELEVATIONS		
15	STREET SECTIONS		
16	OVERALL UTILITY PLAN		
17	DRAINAGE AND GRADING PLAN		
18	GRADING PLAN		
19	RETAINING WALL DETAILS		
20	OVERALL LANDSCAPE PLAN		
21	LANDSCAPE PLAN ENLARGEMENT		
22	LANDSCAPE PLAN ENLARGEMENT		
23	LANDSCAPE PLAN ENLARGEMENT		
24	LANDSCAPE PLAN ENLARGEMENT		
25	LANDSCAPE PLAN ENLARGEMENT		
26	PLANT SCHEDULE		
27	LANDSCAPE DETAILS & NOTES		

PROPOSED ZONING

SCALE: 1"=150'-0"



PROJECT HISTORY

12.04.1980 AMENDED P.U.D. PLAN

PROPOSED PUD

THIS PRELIMINARY PUD PROPOSES TO DEVELOP A VIBRANT MIXED-USE PROJECT THAT INCLUDES APPROXIMATELY 13,534 SQUARE FEET OF COMMERCIAL USE ADJACENT TO SOUTH BOULDER ROAD. A WIDE VARIETY OF HOUSING CHOICES ARE PROPOSED THAT ARE EXCITING, ENERGY EFFICIENT AND MOST OF ALL ATTAINABLE. SPECIFIC PRODUCT TYPES ARE DESCRIBED AS FOLLOWS:

- 3-STORY MIXED-USE BUILDINGS PROPOSED TO BE LOCATED ALONG SOUTH BOULDER ROAD.
- 3-STORY MULTI-FAMILY BUILDINGS FACE FRONT STREET AND CREATE AND ATTRACTIVE PEDESTRIAN-ORIENTED STREETScape AT THE ENTRANCE TO THE NEIGHBORHOOD.
- FURTHER SOUTH ALONG FRONT STREET, ALLEY-LOADED TOWNHOMES CONTINUE THE ARCHITECTURALLY DOMINANT STREETScape. THEY ARE 3-STORIES WITH A GARAGE ON THE FIRST LEVEL, ACCESSIBLE FROM THE ALLEYS.
- MICRO TOWNHOMES LOCATED SOUTH OF THE EXISTING C-B COMMERCIAL AREA FORM AN IDEAL TRANSITION BETWEEN THE EXISTING COMMERCIAL USES AND THE EXISTING "LITTLE ITALY" RESIDENTIAL NEIGHBORHOOD TO THE SOUTH.
- A SPECIAL REVIEW USE IS REQUESTED WITH THIS PUD APPLICATION TO ALLOW RESIDENTIAL USE ON THE FIRST FLOOR OF MULTI-UNIT DWELLINGS (MULTI-FAMILY AND TOWNHOMES).
- THIS PUD WILL SUPERSEDE ALL PREVIOUSLY RECORDED PUD'S RELATED TO THE SITE.

PROPOSED PHASING

UPON FINAL PUD ACCEPTANCE, THE BUILDER OR DEVELOPER CAN OBTAIN PERMITS FOR 42 RESIDENTIAL UNITS. BEFORE ISSUING PERMITS FOR ADDITIONAL RESIDENTIAL UNITS, A PERMIT FOR ONE MIXED-USE BUILDING MUST BE OBTAINED, AND ITS FOUNDATION COMPLETED BACKFILLED, AND ACCEPTED BY THE CITY. ONCE THIS IS DONE, ANOTHER 42 RESIDENTIAL UNIT PERMITS CAN BE ISSUED.

THE PERMIT FOR THE SECOND MIXED-USE BUILDING AND THE COMPLETION AND BACKFILLING OF ITS FOUNDATION ARE REQUIRED BEFORE ISSUING THE REMAINING RESIDENTIAL UNIT PERMITS. IF THE BUILDER OR DEVELOPER OBTAINS MIXED-USE BUILDING PERMITS AND COMPLETES THE FOUNDATION WORK AHEAD OF SCHEDULE, ALL RESTRICTIONS ON RESIDENTIAL PERMIT ISSUANCE ARE REMOVED.

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



LANDSCAPE ARCHITECTURE, LAND PLANNING

1000 17th Street, Suite 100, Boulder, CO 80502

p. 970.224.5828

OWNER

COAL CREEK VILLAGE LLC
Michael Marhal
5705 ARAPAHO AVE.
BOULDER, COLORADO 80503
p. 970.224.5828

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Joel Seamon
420 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
p. 970.651.6626



NORTH

ORIGINAL SIZE 24X36

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

COVER SHEET

SEAL:



PROJECT NO.: R20-430
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:

DWELLING UNIT BREAK DOWN	
DWELLING TYPE	DUs
MULTI-FAMILY	96
ALLEY-LOADED TOWNHOME UNITS	60
MICRO TOWNHOME UNITS	32
TOTAL	188

(2) TYPICAL 40'-0" MAXIMUM BUILDING HEIGHT, FOR TOWNHOMES #13-18, WHICH ARE LOCATED IN RM DISTRICT TRANSITIONAL HEIGHT SETBACK, MAXIMUM HEIGHT SHALL BE 35'-0".

* WAIVER REQUEST INCLUDED WITH THIS APPLICATION

(1) 10,000 SQ. FT. OPTION: SPECIAL REVIEW REQUIRED FOR BUILDINGS > 10,000 SQ. FT

* AREA OF DENSITY CALCULATION INCLUDES PLATTED ACREAGE AND $\frac{1}{2}$ THE AREA OF ANY ADJACENT STREET PER

** WAIVER REQUEST INCLUDED WITH THIS APPLICATION.

*** 31% (OR 3.53 ACRES) OF THE SITE IS DEDICATED TO LANDSCAPE AREA (1.87 ACRES ARE DEDICATED TO LANDSCAPED PLANT MATERIAL AND 1.66 ACRES ARE HARDSCAPED). IT IS THE APPLICANT'S UNDERSTANDING THAT THE SITE IS COMPLIANT WITH MUDDSG SEC. 7.4.B.1.B AS HARDSCAPE ELEMENTS MAKE UP LESS THAN 2/3 OF THE LANDSCAPE AREA REQUIREMENT.

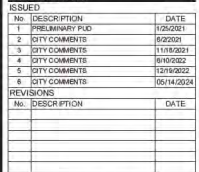
*PLEASE REFER TO WAIVER REFERENCE DIAGRAMS INCLUDED WITH SUBMITTAL PACKAGE AND DESCRIPTIONS IN WAIVER REQUEST DOCUMENT FOR MORE INFORMATION.

*PLEASE REFER TO WAIVER REFERENCE DIAGRAMS INCLUDED WITH SUBMITTAL PACKAGE AND DESCRIPTIONS IN WAIVER REQUEST DOCUMENT FOR MORE INFORMATION.

[illegible]2 OF 32



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



SEAL:



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

LOUISVILLE, COLORADO
PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

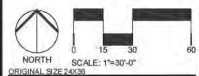
RIPLEY DESIGN INC.
Joel Weikert
419 Canyon Ave. Suite 200
Fort Collins, CO 80521
p. 970.224.5825

OWNER _____

COAL CREEK VILLAGE LLC
Michael Merkel
5723 ARAPAHOE AVE.
BOULDER, COLORADO 80303
P. 303.775.5524

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Joel Seemons
420 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P. 303.651.0626



ISSUED		
No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	1/25/2021
2	CITY COMMENTS	5/22/2021
3	CITY COMMENTS	11/18/2021
4	CITY COMMENTS	9/10/2022
5	CITY COMMENTS	12/19/2022
6	CITY COMMENTS	05/14/2024
REVISIONS		
No.	DESCRIPTION	DATE

SITE PLAN
ENLARGEMENT

SEAL:



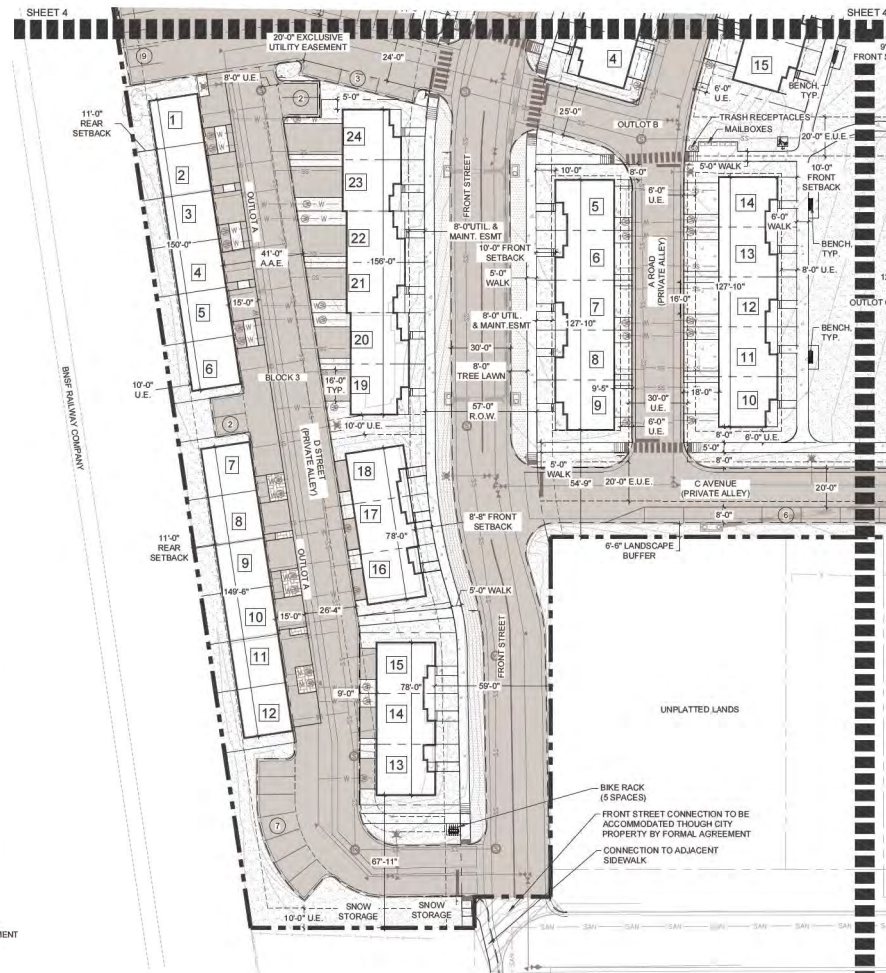
PROJECT No.:	R20-030
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DRAWN BY: _____
 DESIGNED BY: _____

DRAWING NO.

STAMPING NUMBER:

6 OF 32



LEGEND

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

Printed By: Megan McConrath Layout: PED & BIKE CIRCULATION Printed On: 3/26/2024 4:45 PM File Name: PEDESTRIAN & BICYCLE CIRCULATION.dwg

LEGEND

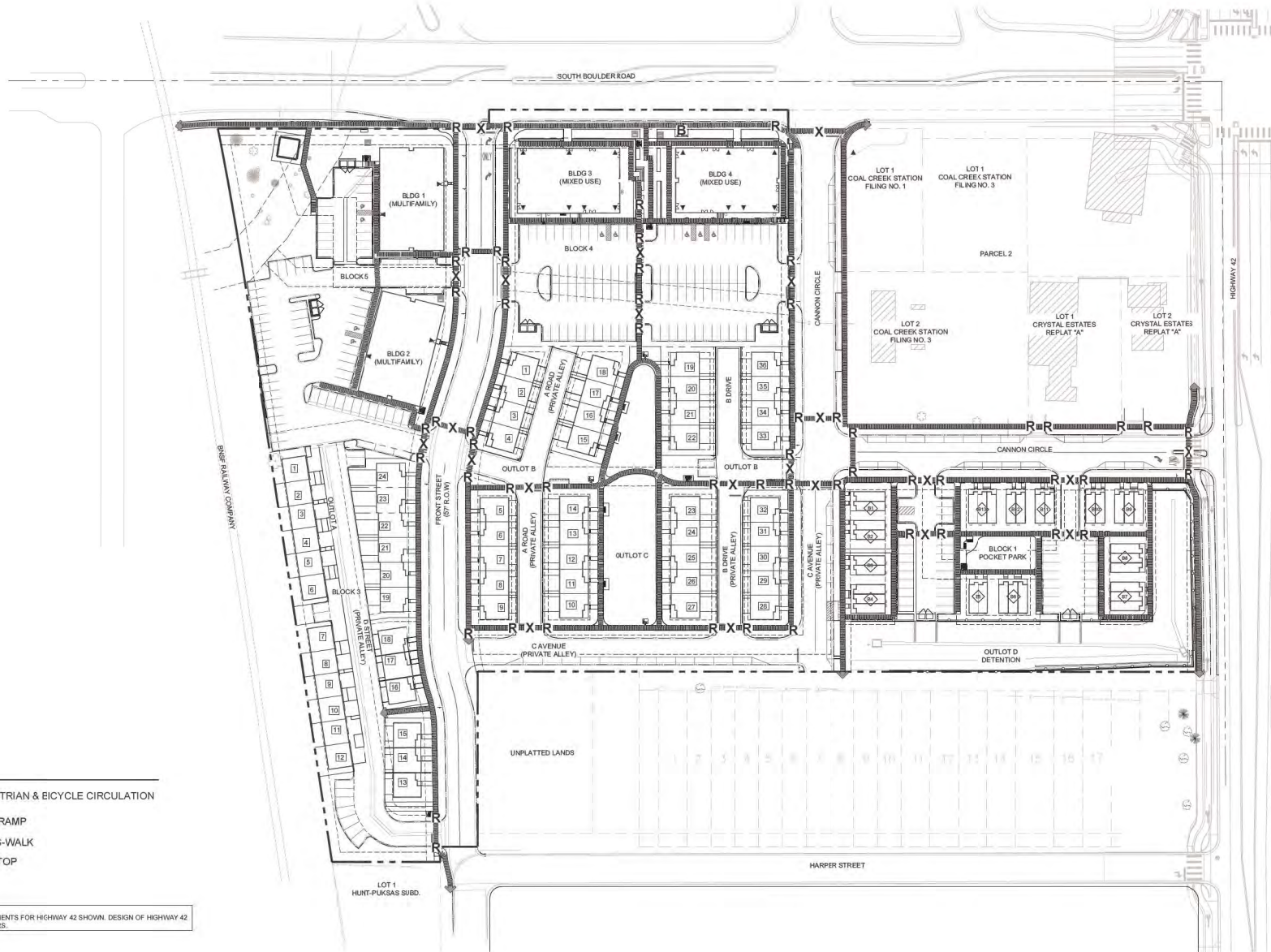
||||| PEDESTRIAN & BICYCLE CIRCULATION

R WALK RAMP

X CROSS-WALK

B BUS-STOP

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:



PLANNER / LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
Joe Wehner
419 Canyon Ave. Suite 200
Fort Collins, CO 80521
P: 970.224.5828

OWNER:

COAL CREEK VILLAGE LLC
Michael Marler
2723 ARAPAHOE AVE.
BOULDER, COLORADO 80503
P: 303.773.6581

ENGINEER:

ROCKY RIDGE CIVIL ENGINEERING
Joe Swanson
4002 1ST AVENUE, SUITE 01
LONGMONT, COLORADO 80501
P: 303.651.6505



ORIGINAL SIZE 24"X36"

ISSUED

No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD TO 2	06/21/2021
3	PRELIMINARY PUD TO 3	09/17/2021
4	PRELIMINARY PUD TO 4	12/03/2021
5	PRELIMINARY PUD TO 5	08/04/2022
6	PRELIMINARY PUD TO 6	05/14/2024

REVISIONS

No.	DESCRIPTION	DATE

PEDESTRIAN CIRCULATION PLAN

SEAL:



PROJECT No.: R20-020
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO
PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
Joel Wehert
419 Canyon Ave, Suite 200
Fort Collins, CO 80521
P: 970.224.9628

OWNER

COAL CREEK VILLAGE LLC
Michael Marini
5723 AARAPAH AVE.
BOULDER, COLORADO 80503
P: 303.775.6028

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Joel Wehert
402 13TH AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P: 303.691.9628

ORIGINAL: 5/26/2024

ISSUED	DATE
1. PRELIMINARY PUD	01/22/2021
2. PRELIMINARY PUD RD 2	06/21/2021
3. PRELIMINARY PUD RD 3	09/17/2022
4. PRELIMINARY PUD RD 4	12/03/2022
5. PRELIMINARY PUD RD 5	08/04/2023
6. PRELIMINARY PUD RD 6	09/14/2024
REVISIONS	DATE
NO.	DESCRIPTION

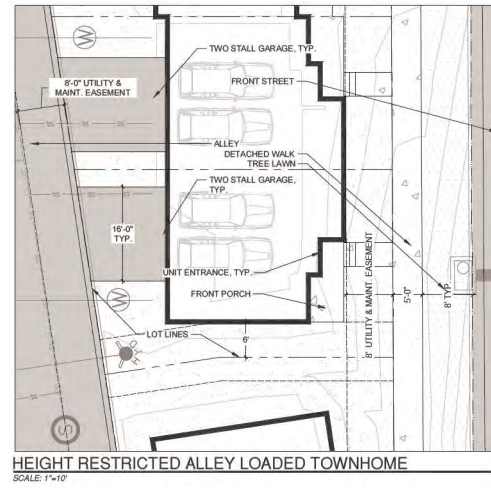
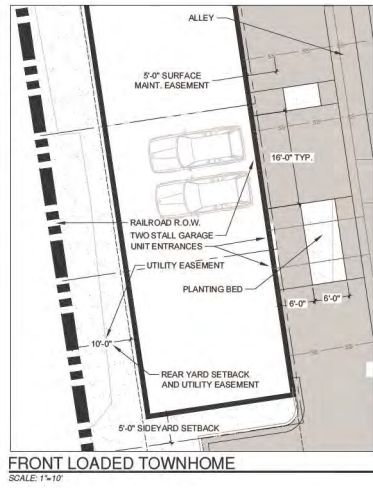
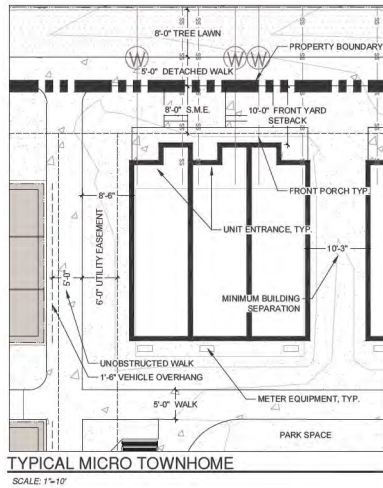
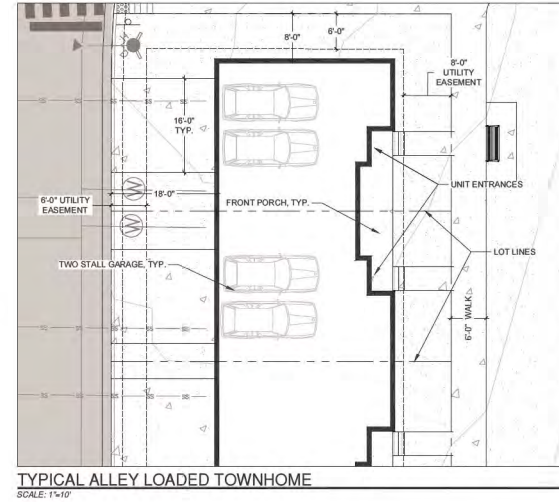
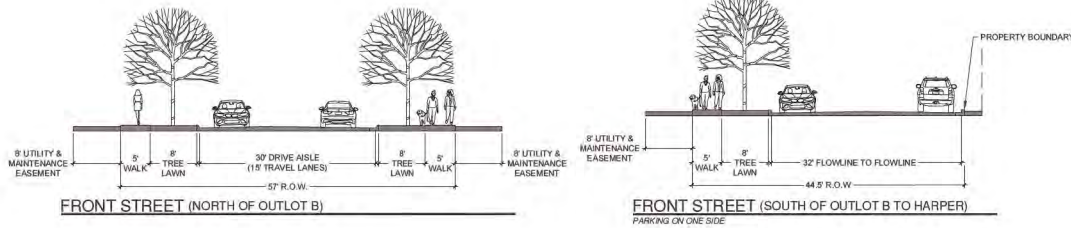
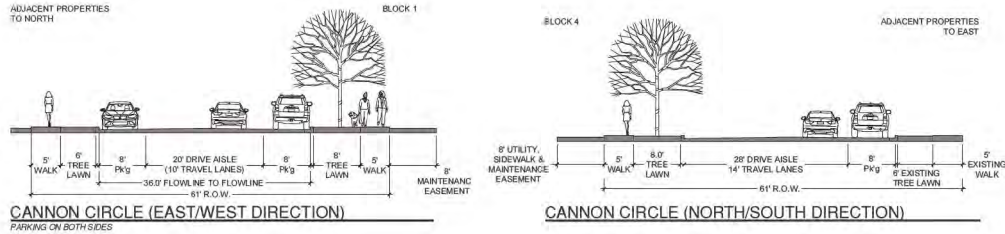
PLANNING STREET SECTIONS AND TYPICALS

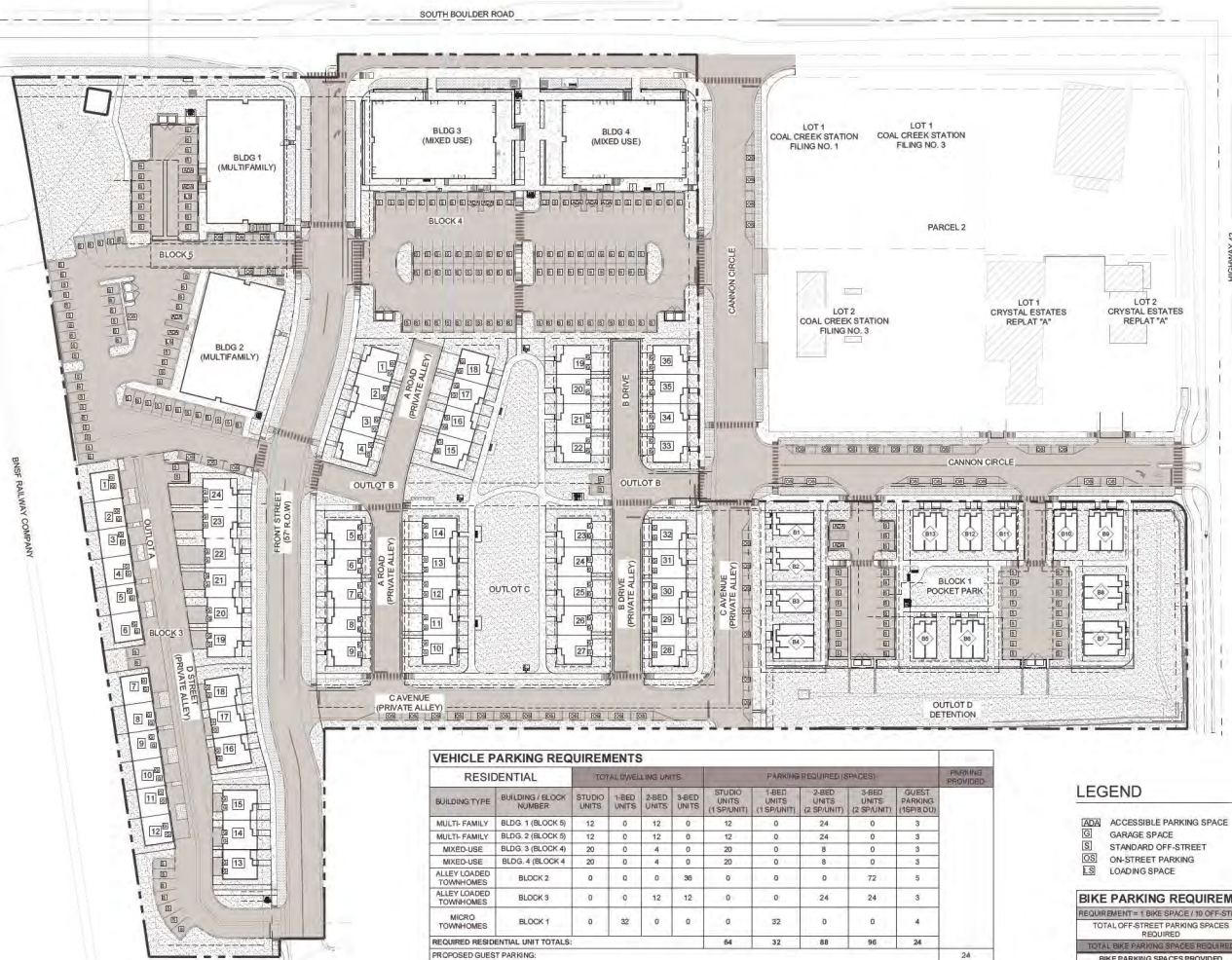
SEAL:



PROJECT NO: R20-030
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:

8 OF 32





VEHICLE PARKING REQUIREMENTS											PARKING PROVIDED
RESIDENTIAL		TOTAL DWELLING UNITS				PARKING REQUIRED (SPACES)					
BUILDING TYPE	BUILDING / BLOCK NUMBER	STUDIO UNITS	1-BED UNITS	2-BED UNITS	3-BED UNITS	STUDIO UNITS (1 SP/UNIT)	1-BED UNITS (1 SP/UNIT)	2-BED UNITS (2 SP/UNIT)	3-BED UNITS (3 SP/UNIT)	GUEST PARKING (SP/UNIT)	
MULTI-FAMILY	BLDG 1 (BLOCK 5)	12	0	12	0	12	0	24	0	3	
MULTI-FAMILY	BLDG 2 (BLOCK 5)	12	0	12	0	12	0	24	0	3	
MIXED-USE	BLDG 3 (BLOCK 4)	20	0	4	0	20	0	8	0	3	
MIXED-USE	BLDG 4 (BLOCK 4)	20	0	4	0	20	0	8	0	3	
ALLEY LOADED TOWNHOMES	BLOCK 2	0	0	0	36	0	0	0	72	5	
ALLEY LOADED TOWNHOMES	BLOCK 3	0	0	12	12	0	0	24	24	3	
MICRO TOWNHOMES	BLOCK 1	0	32	0	0	0	32	0	0	4	
REQUIRED RESIDENTIAL UNIT TOTALS:						64	32	68	96	24	
PROPOSED GUEST PARKING:											24
PROPOSED GARAGE PARKING:											120
PROPOSED OFF-STREET PARKING:											172
TOTAL PARKING REQUIRED FOR RESIDENTIAL:						304					318

VEHICLE PARKING REQUIREMENTS				
COMMERCIAL				
BUILDING TYPE	BUILDING / BLOCK NUMBER	TOTAL COMMERCIAL AREA (S.F.)	PARKING REQUIRED (1 SPACE / 300 S.F.)	PARKING PROVIDED
MIXED-USE	BLDG. 3 (BLOCK 4)	6767	22	
MIXED-USE	BLDG. 4 (BLOCK 4)	6767	22	
EXISTING BUILDING LOT 2		428	2	
TOTAL PARKING REQUIRED FOR COMMERCIAL			46	46

VEHICLE PARKING TOTALS	
TOTAL PARKING REQUIRED FOR RESIDENTIAL	316
TOTAL PARKING REQUIRED FOR COMMERCIAL	46
TOTAL PROJECT PARKING REQUIRED	362
TOTAL PROJECT PARKING PROVIDED	384*

*TOTAL INCLUDES 21 SPACES PROVIDED ON PUBLIC STREETS

OFF STREET LOADING SPACES	
OFF-STREET LOADING SPACES PROVIDED	4

*A minimum of one (1) dedicated, off-street loading space is required for nonresidential uses greater than 50,000 square feet in gross leasable area and for multi-family residential uses containing more than fifteen (15) units, per MUDDSG Sec. 4.3

LEGEND

- ACCESSIBLE PARKING SPACE
- GARAGE SPACE
- STANDARD OFF-STREET
- ON-STREET PARKING
- LOADING SPACE

BIKE PARKING REQUIREMENTS	
REQUIREMENT = 1 BIKE SPACE / 10 OFF-STREET PARKING SPACES REQUIRED	
TOTAL OFF-STREET PARKING SPACES REQUIRED	351
TOTAL BIKE PARKING SPACES REQUIRED	20
BIKE PARKING SPACES PROVIDED	35

*MUDDSG 5.5 A. 1: "Provide one (1) bicycle parking space for every ten (10) required off-street automobile parking spaces up to a total of twenty (20) bicycle parking spaces. (57)

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



APPLICANT:

RIPLY DESIGN INC.

Joe Wehner

410 Canyon Ave. Suite 200

Fort Collins, CO 80521

P: 970.224.5626

OWNER:

COAL CREEK VILLAGE LLC

Michael Marks

2723 MARAPACE AVE

BOULDER, COLORADO 80303

P: 303.773.6544

ENGINEER:

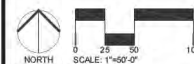
ROCKY RIDGE CIVIL ENGINEERING

and Associates

400 21ST AVENUE, SUITE 101

LONGMONT, COLORADO 80501

P: 303.451.8606



SCALE: 1"=50'-0"

ORIGINAL SIZE 24x36

ISSUED	
NO.	DESCRIPTION
1	PRELIMINARY PUD
2	PRELIMINARY PUD RD 2
3	PRELIMINARY PUD RD 3
4	PRELIMINARY PUD RD 4
5	PRELIMINARY PUD RD 5
6	PRELIMINARY PUD RD 6
REVISIONS	
NO.	DESCRIPTION

PARKING PLAN

SEAL:



PROJECT NO: R20-030

DRAWN BY:

REVIEWED BY:

DRAWING NUMBER:

Plotted By: Megan McCreary Layout: SS MICRO COTTAGE CONDO ELEVATIONS Printed On: 3/26/2024 10:29 AM File Name: ELEVATIONS_MICRO-HOMES.rvt



MODEL A

FRONT ELEVATIONS

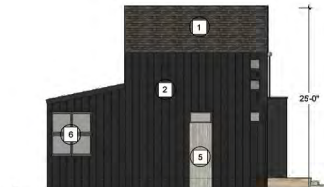


MODEL B



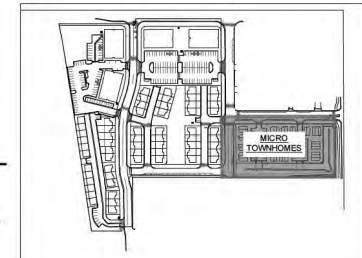
MODEL A

LEFT ELEVATIONS



MODEL B

KEY MAP



MATERIAL LEGEND

KEY - ITEM	MATERIAL - ITEM
1	ASPHALT SHINGLES
2	BOARD & BATTEN SIDING
3	LAP SIDING
4	PANEL OR STUCCO
5	SYNTHETIC MASONRY VENEER
6	VINYL WINDOWS



MODEL A

REAR ELEVATIONS



MODEL B



MODEL A

RIGHT ELEVATIONS

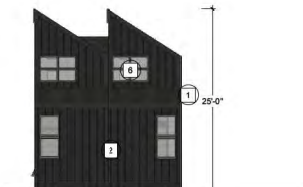


MODEL B

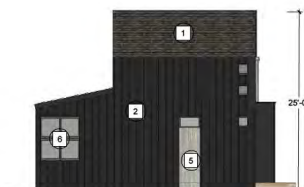


FRONT ELEVATION

MICRO TOWNHOME UNITS, DUPLEX



REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



APPASANT

RIPLY DESIGN INC.
Joel Wehert
418 Canyon Ave. Suite 200
Fort Collins, CO 80521
P. 970.224.5628

OWNER

COAL CREEK VILLAGE LLC
Michael Marler
5723 ARAPAHOE AVE.
BOULDER, COLORADO 80503
P. 303.778.6508

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Jed Swanson
420 21ST AVENUE, SUITE 01
LONGMONT, COLORADO 80501
P. 303.651.8608

ORIGINAL SIZE 24X36

ISSUED		
No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD SD 2	06/21/2021
3	PRELIMINARY PUD SD 3	06/07/2022
4	PRELIMINARY PUD SD 4	12/23/2022
5	PRELIMINARY PUD SD 5	08/04/2023
6	PRELIMINARY PUD SD 6	05/14/2024
REVISIONS		
No.	DESCRIPTION	DATE

MICRO TOWNHOME ELEVATIONS

SEAL:



PROJECT No.: R20-030

DRAWN BY:

REVIEWED BY:

DRAWING NUMBER:

Printed By: Megan McCreary Layout: 58 TOWN HOME ELEVATIONS Printed On: 3/25/2024 10:31 AM File Name: ELEVATIONS_TOWNHOMES.dwg



MODEL A



MODEL B

FRONT ELEVATIONS

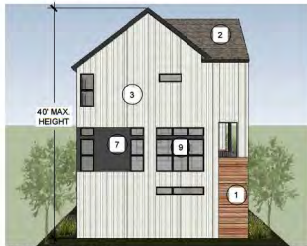


MODEL A



MODEL B

REAR ELEVATIONS



LEFT ELEVATION

MODEL A



RIGHT ELEVATION

MODEL A



LEFT ELEVATION

MODEL B



RIGHT ELEVATION

MODEL B

END ELEVATIONS

ALLEY LOADED TOWNHOME (4-PLEX)



LEFT ELEVATION

FRONT ELEVATION

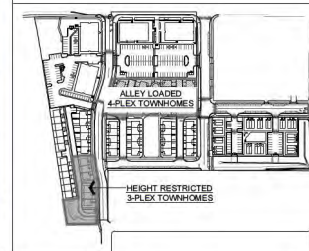


RIGHT ELEVATION

REAR ELEVATION

HEIGHT RESTRICTED, ALLEY LOADED TOWNHOME (3-PLEX)

KEY MAP



MATERIAL LEGEND

KEY - ITEM	MATERIAL - ITEM
1	ARCHITECTURAL PANEL & LAP SIDING/STUCCO
2	ASPHALT SHINGLES
3	BOARD & BATTEN SIDING
4	EPDM ROOF
5	GARAGE DOORS WITH WINDOWS
6	LAP SIDING
7	PANEL OR STUCCO
8	SYNTHETIC MASONRY VENEER
9	VINYL WINDOWS

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



APPLICANT

RIPLY DESIGN INC.
Joel Wehler
418 Canyon Ave. Suite 200
Fort Collins, CO 80521
P. 970.224.8628

OWNER

COAL CREEK VILLAGE LLC
Michael Marler
6723 AIRWAY AVE.
BOULDER, COLORADO 80503
P. 303.776.6524

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Jeff Swanson
420 21ST AVENUE, SUITE 01
LONGMONT, COLORADO 80501
P. 303.651.8606

ORIGINAL SIZE 24X36

ISSUED	No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021	
2	PRELIMINARY PUD TO 2	06/21/2021	
3	PRELIMINARY PUD TO 3	09/17/2021	
4	PRELIMINARY PUD TO 4	12/23/2022	
5	PRELIMINARY PUD TO 5	08/04/2023	
6	PRELIMINARY PUD TO 6	05/14/2024	

ALLEY LOADED TOWNHOME ELEVATIONS

SEAL:



PROJECT No.: R20-030

DRAWN BY:

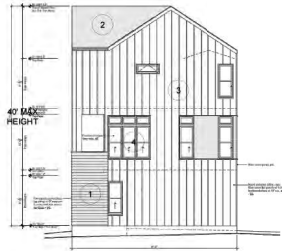
REVIEWED BY:

DRAWING NUMBER:

Plotted By: Megan McCreight Layout: S10 ALLEY LOADED TOWN HOME ELEVATIONS Printed On: 3/26/2024 2:33 PM File Name: ELEVATIONS - TOWNHOMES.dwg



LEFT ELEVATION



RIGHT ELEVATION



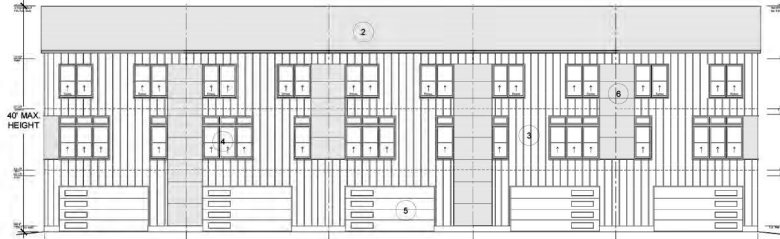
FRONT ELEVATION

ALLEY LOADED TOWNHOME (5-PLEX) - FARMHOUSE

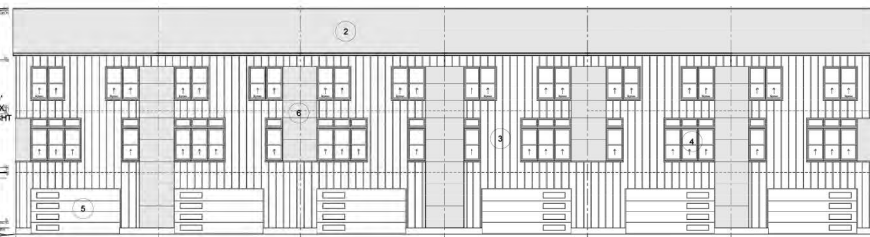


FRONT ELEVATION

ALLEY LOADED TOWNHOME (6-PLEX) - FARMHOUSE

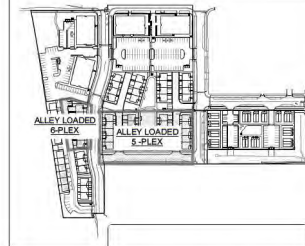


REAR ELEVATION



REAR ELEVATION

KEY MAP



MATERIAL LEGEND	
KEY - ITEM	MATERIAL - ITEM
1	ARCHITECTURAL PANEL & LAP SIDING/STUCCO
2	ASPHALT SHINGLES
3	BOARD & BATTEN SIDING
4	VINYL WINDOWS
5	GARAGE DOORS WITH WINDOWS
6	PANEL OR STUCCO

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO
PREPARED BY:



APPLICANT:

RIPLY DESIGN INC.
Joel Wehner
410 Canyon Ave. Suite 200
Fort Collins, CO 80521
p. 970.224.5628

OWNER:

COAL CREEK VILLAGE LLC
Michael Morley
5723 ARAPAHO AVE
BOULDER, COLORADO 80503
P. 303.775.5558

ENGINEER:

ROCKY RIDGE CIVIL ENGINEERING
Joel Swanson
420 21ST AVENUE, SUITE 01
LONGMONT, COLORADO 80501
P. 303.651.6906

ORIGINAL SIZE 24X36

ISSUED		DATE
No.	DESCRIPTION	
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD 2	06/12/2021
3	PRELIMINARY PUD 3	09/17/2022
4	PRELIMINARY PUD 4	12/30/2022
5	PRELIMINARY PUD 5	08/04/2023
6	PRELIMINARY PUD 6	05/14/2024
REVISIONS		DATE
No.	DESCRIPTION	

ALLEY LOADED TOWNHOME ELEVATIONS

SEAL:



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

Plotted By: Megan McGregor Layout: S11 ALLEY LOADED TOWN HOME ELEVATIONS Printed On: 3/26/2024 2:38 PM File Name: ELEVATIONS_TOWNHOMES.dwg



LEFT ELEVATION



RIGHT ELEVATION



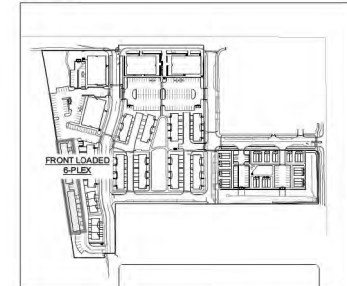
FRONT ELEVATIONS



REAR ELEVATIONS

FRONT LOADED TOWNHOME (6-PLEX) - MODERN

KEY MAP



MATERIAL LEGEND	
KEY - ITEM	MATERIAL - ITEM
1	BRICK OR TILE VENEER
2	PANELOR STUCCO
3	EPDM ROOF
4	GARAGE DOCKS WITH WINDOWS
5	LAP SIDING
6	VINYL WINDOWS

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



APPLICANT:

RIPLY DESIGN INC.
Joel Wehler
410 Canyon Ave. Suite 200
Fort Collins, CO 80521
p. 970.224.5628

OWNER:

COAL CREEK VILLAGE LLC
Michael Morley
6720 ARAPAHO AVE
BOULDER, COLORADO 80503
P. 303.775.5558

ENGINEER:

ROCKY RIDGE CIVIL ENGINEERING
Joel Swanson
420 21ST AVENUE, SUITE 01
LONGMONT, COLORADO 80501
P. 303.651.6506

ORIGINAL SIZE 24X36

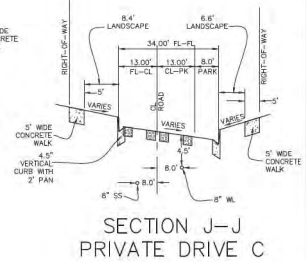
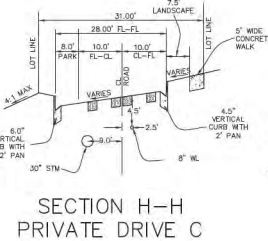
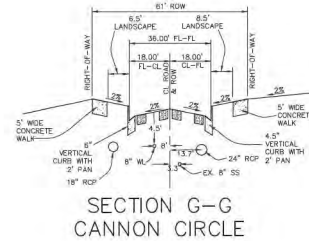
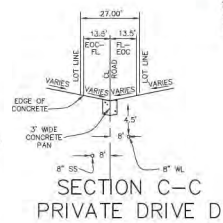
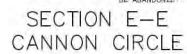
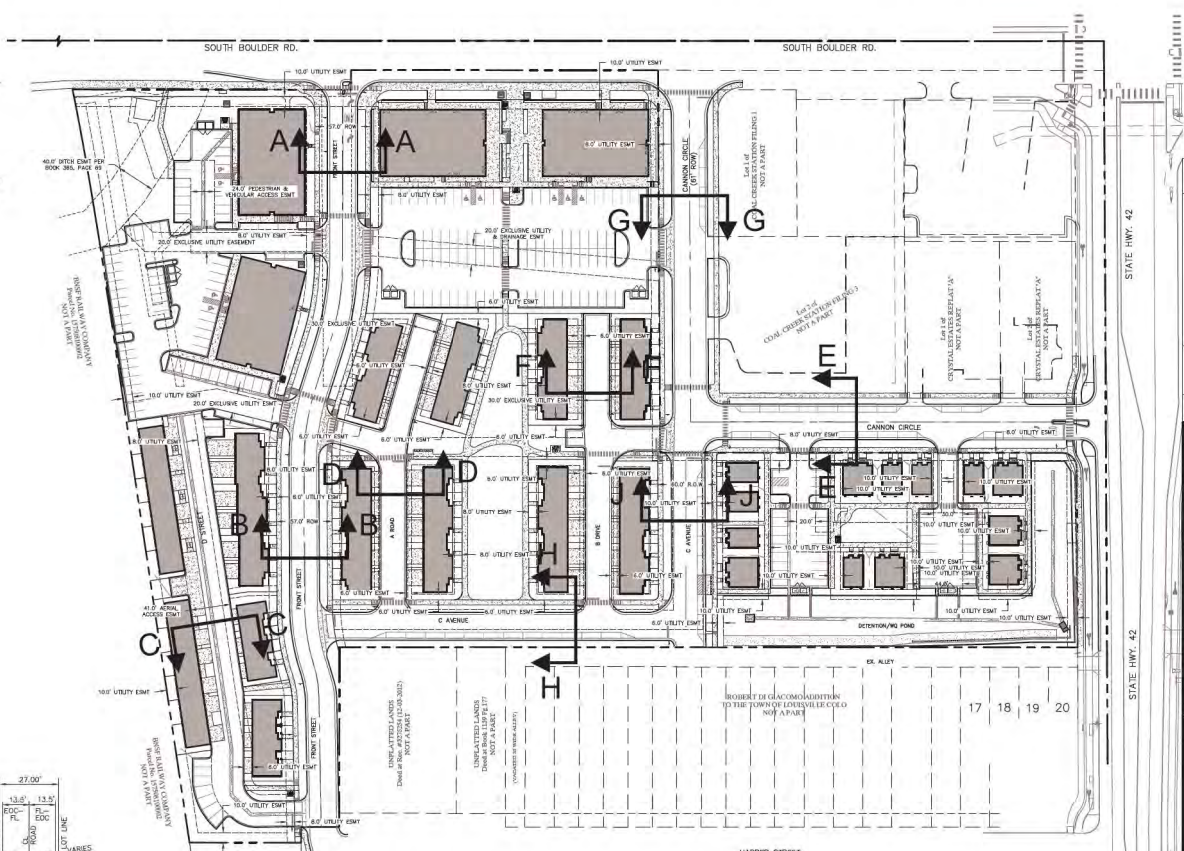
ISSUED	
No.	DESCRIPTION
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3	PRELIMINARY PUORD 3
4	PRELIMINARY PUORD 4
5	PRELIMINARY PUORD 5
6	PRELIMINARY PUORD 6
REVISIONS	
No.	DESCRIPTION

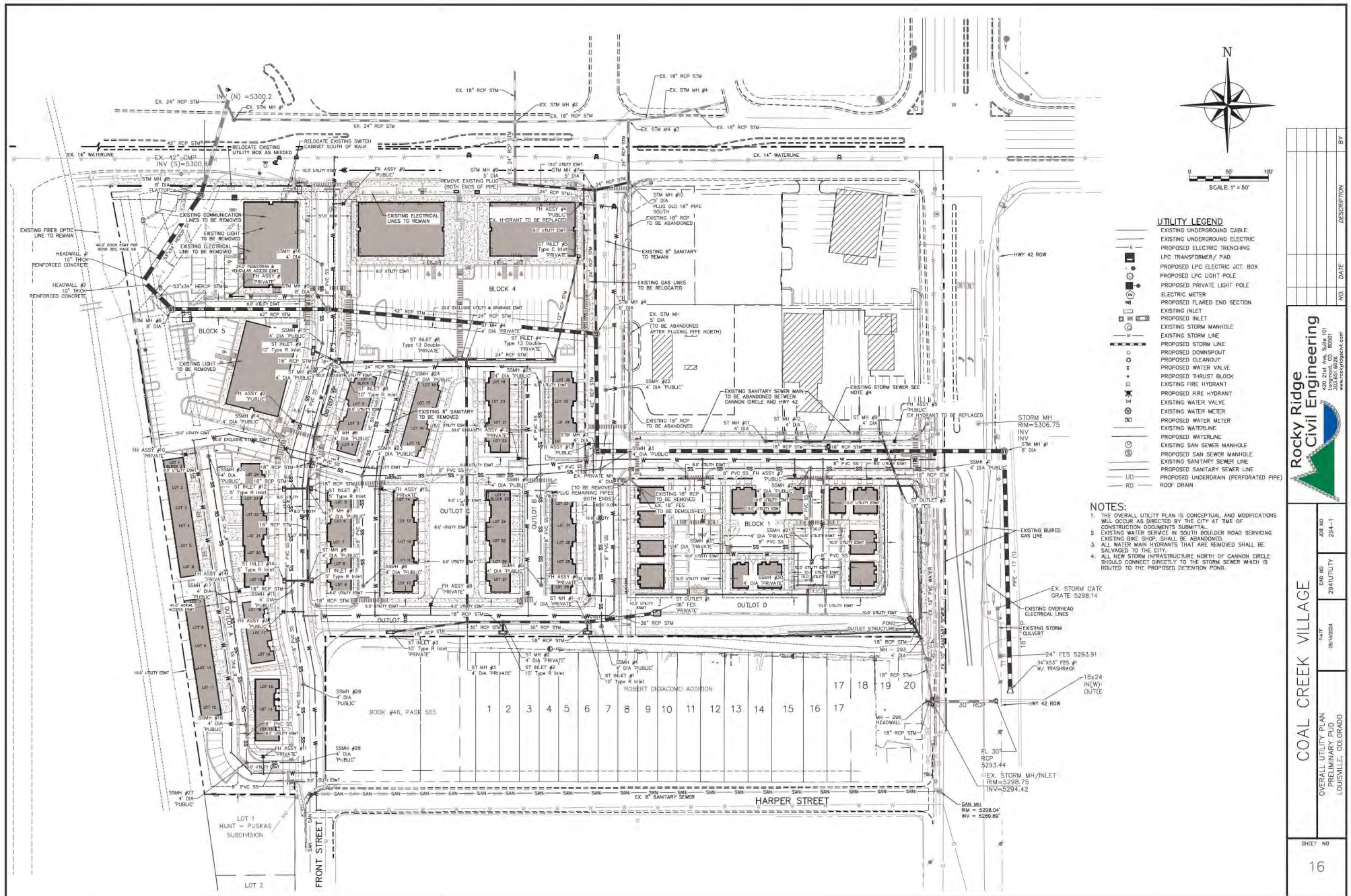
FRONT LOADED TOWNHOME ELEVATIONS

SEAL:



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





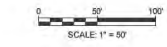
- UTILITY LEGEND**
- EXISTING UNDERGROUND CABLE
 - EXISTING UNDERGROUND ELECTRIC
 - PROPOSED ELECTRIC TRENCHING
 - LPC TRANSFORMER / PAD
 - PROPOSED LPT ELECTRIC ACT. BOX
 - PROPOSED LPT ELECTRIC POLE
 - PROPOSED PRIVATE LPT POLE
 - ELECTRIC METER
 - PROPOSED FLARED END SECTION
 - EXISTING INLET
 - EXISTING STORM MANHOLE
 - EXISTING STORM LINE
 - PROPOSED STORM LINE
 - PROPOSED DOWNPOUT
 - PROPOSED CLEANOUT
 - PROPOSED WATER VALVE
 - PROPOSED THRUST BLOCK
 - EXISTING FIRE HYDRANT
 - PROPOSED FIRE HYDRANT
 - EXISTING WATER VALVE
 - EXISTING WATER METER
 - PROPOSED WATER METER
 - EXISTING WATERLINE
 - PROPOSED WATERLINE
 - EXISTING SAN SEWER MANHOLE
 - PROPOSED SAN SEWER MANHOLE
 - EXISTING SANITARY SEWER LINE
 - PROPOSED SANITARY SEWER LINE
 - PROPOSED UNDERDRAN (PERFORATED PIPE)
 - ROOF DRAIN

- NOTES:**
1. THE OVERALL UTILITY PLAN IS CONCEPTUAL AND MODIFICATIONS WILL OCCUR AS DIRECTED BY THE CITY AT TIME OF CONSTRUCTION DOCUMENTS SUBMITAL.
 2. EXISTING WATER SERVICE IN SOUTH BOULDER ROAD SERVING EXISTING BKE SHOP, SHALL BE ABANDONED.
 3. ALL WATER MAIN HYDRANTS THAT ARE REMOVED SHALL BE SALVAGED TO THE CITY.
 4. ALL NEW STORM INFRASTRUCTURE NORTH OF CANNON CIRCLE SHOULD CONNECT DIRECTLY TO THE STORM SEWER WHICH IS ROUTED TO THE PROPOSED DETENTION POND.

Rocky Ridge Civil Engineering		DATE	08/16/2024	BY	
1000 14th St, Suite 100, Boulder, CO 80501		NO.	284-1	DESCRIPTION	
www.rockyridgecivil.com		DATE	08/16/2024	BY	
COAL CREEK VILLAGE		DATE	08/16/2024	BY	
OVERALL UTILITY PLAN PRELIMINARY PUD LOUISVILLE, COLORADO		DATE	08/16/2024	BY	
SHEET NO		16			

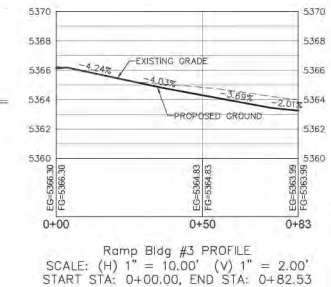
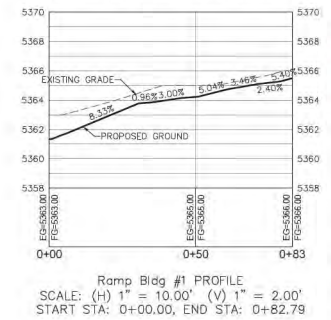
LEGEND

- 5075 --- EXISTING 5' CONTOUR
- 5074 --- EXISTING 1' CONTOUR
- 5075 --- PROPOSED 5' CONTOUR
- 5074 --- PROPOSED 1' CONTOUR



DRAINAGE SUMMARY TABLE

Design Point	Basin	Area	Q (10-yr)	Q (100-yr)
1	P	0.60	1.9	3.6
3	A	0.63	2.0	3.7
4	B	0.37	1.2	2.2
6	C	0.48	1.5	2.8
8	D	0.95	3.0	5.6
7	E	0.63	1.9	3.6
9	F	0.77	2.4	4.6
11	I	1.06	3.3	6.3
12	OS7	0.54	1.8	3.4
13	J	0.30	0.9	1.8
14	K	1.30	4.1	7.7
16	M	0.15	0.5	0.9
17	OS5	0.20	0.1	0.7
18	OS6	0.30	0.2	1.8
19	OS1	0.76	0.6	2.9
20	OS2	1.82	1.2	6.6
21	OS8	0.22	0.8	1.4
22	OS9	0.08	0.3	0.5
23	OS10	0.14	0.5	0.9
24	N3	0.10	0.3	0.6
25	N2	0.27	0.9	1.6
26	N1	0.10	0.3	0.6
28	Q	0.76	2.4	4.5
29	G	1.30	4.1	7.7
30	OS3	0.38	1.3	2.4
31	OS6	0.18	0.1	0.6
35	OS11	0.13	0.3	0.6



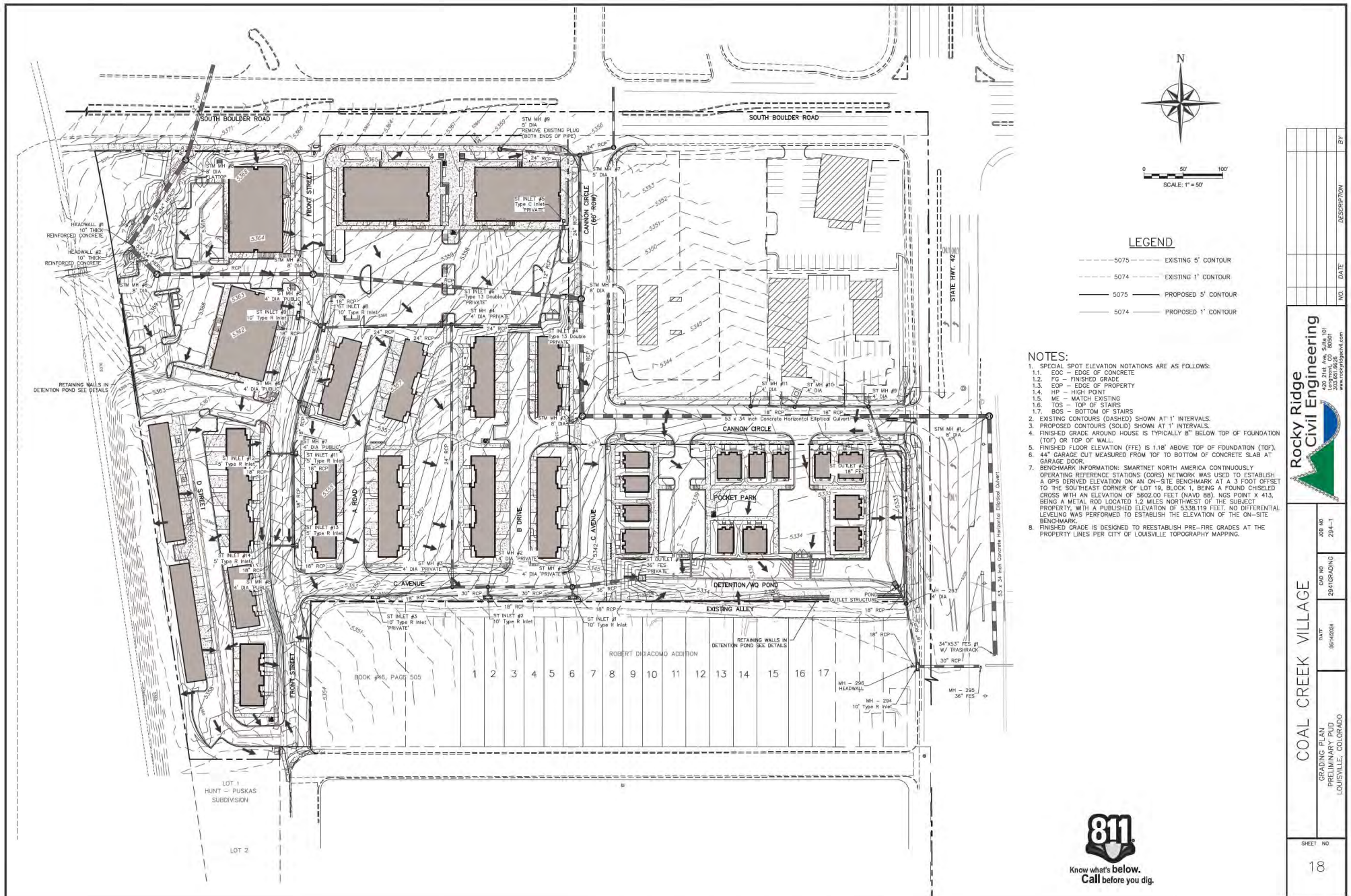
DRAINAGE LEGEND

- W BASIN OR SUB-BASIN
- C VALUE 10-YR STORM
- C VALUE 100-YR STORM
- DESIGN POINT
- BASIN LIMIT
- RUNOFF FLOW DIRECTION

Rocky Ridge Civil Engineering
200 WEST CO. ROAD
LOUISVILLE, CO 80001
www.rockyridgecivil.com

COAL CREEK VILLAGE

DRAINAGE & GRADING PLAN
PRELIMINARY PUD
LOUISVILLE, COLORADO



LEGEND

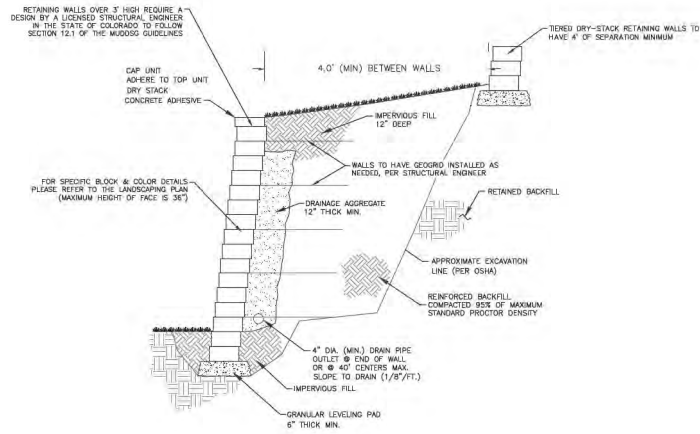
- 5075 --- EXISTING 5' CONTOUR
- 5074 --- EXISTING 1' CONTOUR
- 5075 --- PROPOSED 5' CONTOUR
- 5074 --- PROPOSED 1' CONTOUR

NOTES:

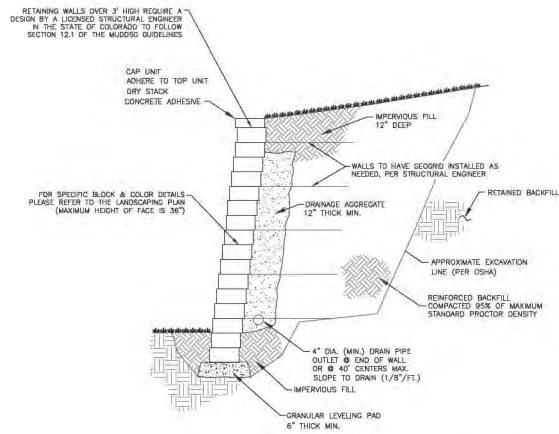
1. SPECIAL SPOT ELEVATION NOTATIONS ARE AS FOLLOWS:
 - 1.1. EOC - EDGE OF CONCRETE
 - 1.2. FG - FINISHED GRADE
 - 1.3. EOP - EDGE OF PROPERTY
 - 1.4. HP - HIGH POINT
 - 1.5. ME - MATCH EXISTING
 - 1.6. TOS - TOP OF STAIRS
 - 1.7. BOS - BOTTOM OF STAIRS
2. EXISTING CONTOURS (DASHED) SHOWN AT 1' INTERVALS.
3. PROPOSED CONTOURS (SOLID) SHOWN AT 1' INTERVALS.
4. FINISHED GRADE AROUND HOUSE IS TYPICALLY 8" BELOW TOP OF FOUNDATION (TOP) OR TOP OF WALL.
5. FINISHED FLOOR ELEVATION (FFE) IS 1.18' ABOVE TOP OF FOUNDATION (TOF).
6. 44' GARAGE OUT MEASURED FROM TOF TO BOTTOM OF CONCRETE SLAB AT GARAGE DOOR.
7. BENCHMARK INFORMATION: SMARTNET NORTH AMERICA CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) NETWORK WAS USED TO ESTABLISH A GPS DERIVED ELEVATION ON AN ON-SITE BENCHMARK AT A 3 FOOT OFFSET TO THE SOUTHEAST CORNER OF LOT 18, BLOCK 1, BEING A FOUND CHISELED CROSS WITH AN ELEVATION OF 5602.00 FEET (NAVD 83). NOS POINT X 413, BEING A METAL ROD LOCATED 1.2 MILES NORTHWEST OF THE SUBJECT PROPERTY, WITH A PUBLISHED ELEVATION OF 5338.119 FEET. NO DIFFERENTIAL LEVELING WAS PERFORMED TO ESTABLISH THE ELEVATION OF THE ON-SITE BENCHMARK.
8. FINISHED GRADE IS DESIGNED TO REESTABLISH PRE-FIRE GRADES AT THE PROPERTY LINES PER CITY OF LOUISVILLE TOPOGRAPHY MAPPING.

 Rocky Ridge Civil Engineering 200 WEST 10TH AVENUE, SUITE 101 LOUISVILLE, CO 80202 www.rockyridgecivil.com		DATE	08/14/2024	BY	
		NO.	294-1	DESCRIPTION	
COAL CREEK VILLAGE		CAD NO.	29415RADDN		
GRADING PLAN PRELIMINARY PUD		DATE	08/14/2024		
LOUISVILLE, COLORADO		SHEET NO.			





TYPICAL SECTION--DRY STACK RETAINING WALL
(LOCATED IN DETENTION POND)
SCALE: NONE

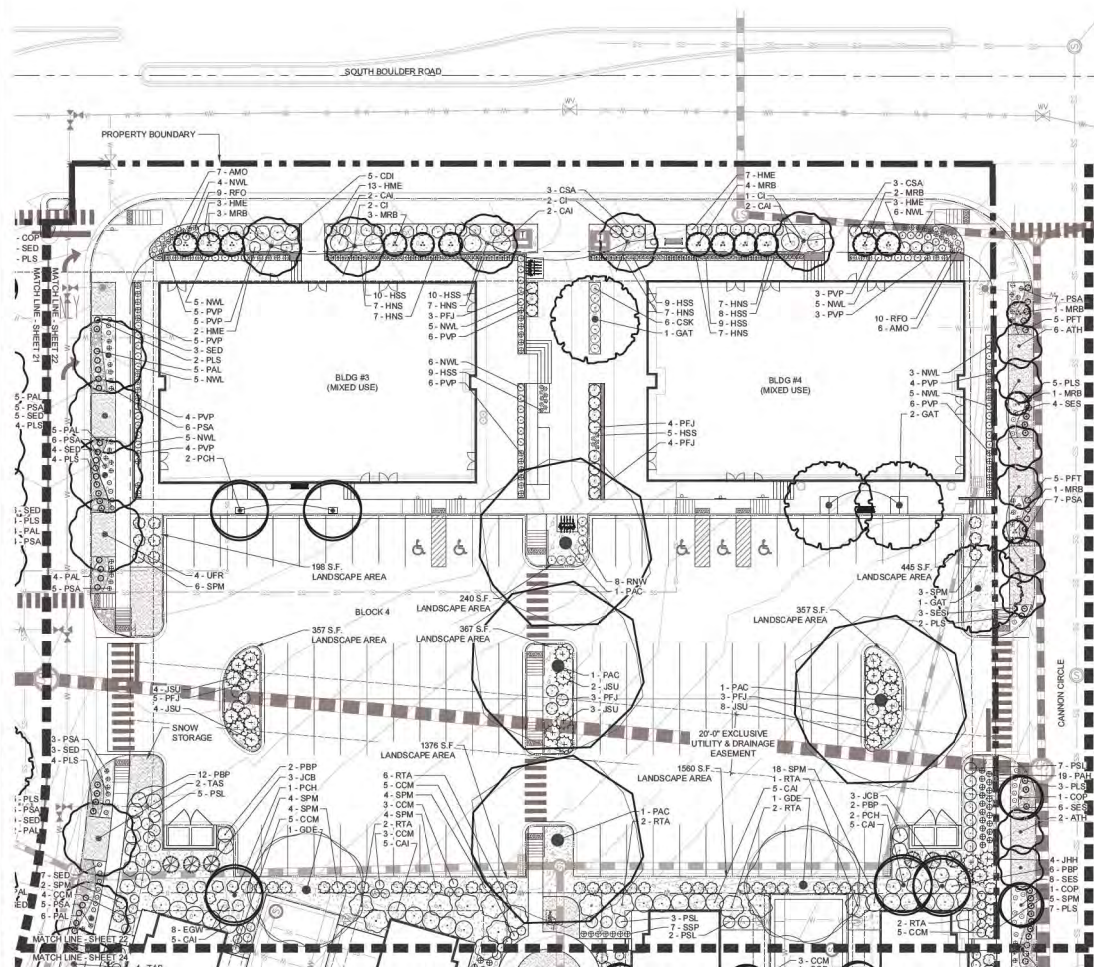


TYPICAL SECTION--DRY STACK RETAINING WALL
(LOCATED ON WEST PROPERTY LINE)
SCALE: NONE

NO.	DATE	DESCRIPTION	BY

Rocky Ridge Civil Engineering
200 West 10th Street, Suite 101
Louisville, CO 80202
www.rockyridgecivil.com

PROJECT NO.	294-1
CADD NO.	29415BADDG
DATE	08/14/2024
RETAINING WALL DETAILS PRELIMINARY PUD LOUISVILLE, COLORADO	



PLANT LEGEND

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
DECIDUOUS TREES					
COP	2	CELTIS OCCIDENTALIS 'PRAIRIE SENTINEL' / PRAIRIE SENTINEL HACKBERRY	8 B & B	2.5' CAL	
GAT	4	GLIEDITSIA TRIACANTHOS 'SKYLINE' / SKYLINE HONEY LOCUST	8 B & B	2.5' CAL	
GDE	2	GYMNOCLADUS DIOICA 'ESPRESSO' / SEEDLESS KENTUCKY COFFEETREE	8 B & B	2.5' CAL	
PAC	4	PLATANUS X ACERIFOLIA 'BLOODGOOD' / BLOODGOOD LONDON PLANETREE	8 B & B	2.5' CAL	
TAS	2	TILIA AMERICANA 'SENTRY' / AMERICAN LINDEN	8 B & B	2.5' CAL	
UFR	4	ULMUS 'FRONTIER' / FRONTIER ELM	8 B & B	2.5' CAL	

EVERGREEN TREES					
JCB	6	JUNPERUS CHINENSIS 'BLUE POINT' / BLUE POINT JUNPER	8 B & B		6' HT

ORNAMENTAL TREES					
ATH	8	ACER TATARICUM 'HOT WINGS' / HOT WINGS MAPLE	8 B & B	1.5' CAL	
CI	5	CRATAEGUS CRUS-GALLI 'HERMES' / THORLESS COCKSPUR HAWTHORN	8 B & B	1.5' CAL	
MRB	15	MALUS X 'RED BARRON' / RED BARRON CRAB APPLE	8 B & B	1.5' CAL	
PCH	5	PYRUS CALLERYANA 'CHANTICLEER' / CHANTICLEER ORNAMENTAL PEAR	8 B & B	1.5' CAL	

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	HYDROZONE
DECIDUOUS SHRUBS				
CAI	25	CARYOPTERIS X CLANDONENSIS 'BLUE MIST' / BLUE MIST SPIREA	5 GAL	
CAI	25	CORNUS ALBA 'IVORY HALO' / IVORY HALO VARIEGATED DOGWOOD	5 GAL	
CSA	6	CORNUS SERICEA 'ARCTIC FIRE' / ARCTIC FIRE RED TWIG DOGWOOD	5 GAL	
CSA	6	CORNUS SERICEA 'KELSEY' / KELSEY DWARF DOGWOOD	5 GAL	
CDI	5	COTONEASTER DIVARICATUS / SPREADING COTONEASTER	5 GAL	
HME	25	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER' / ENDLESS SUMMER HYDRANGEA	5 GAL	
PAL	20	PEROVSKIA ATROPICIFOLIA 'LUSITANY' / LACEY BLUE RUSSIAN SAGE	5 GAL	
PSL	17	PHYSCARPUS OPULIFOLIUS 'LITTLE DEVIL' TM / DWARF NINEBARK	5 GAL	
PFJ	22	POTENTILLA FRUTICOSA 'JACKMAN' / JACKMAN POTENTILLA	5 GAL	
PTT	11	POTENTILLA FRUTICOSA 'TANGERINE' / TANGERINE BUSH CINQUEFOIL	5 GAL	
PBP	22	PRUNUS BESSEYI 'PAWNEE BUTTES' / DWARF WESTERN SAND CHERRY	5 GAL	
RTA	15	RHUS TRILOBATA 'GRO LOW' / SKUNKBUSH SUMAC	5 GAL	
RNW	8	ROSA 'NEARLY WILD' / NEARLY WILD SHRUB ROSE	5 GAL	
SPM	50	SYRINGA PATULA 'MISS KIM' / MISS KIM DWARF LILAC	5 GAL	

EVERGREEN SHRUBS				
EGW	8	EUCONYMUS FORTUNEI 'EMERALD GAUITY' TM / EMERALD GAUITY WINTERCREEPER	5 GAL	
JHH	4	JUNPERUS HORIZONTALIS 'HUGHES' / HUGHES JUNPER	5 GAL	
JSU	21	JUNPERUS SABINA 'BUFFALO' / BUFFALO JUNPER	5 GAL	
PLS	27	PIRUS LEUCODERMIS 'SMOOTH' / DWARF GLOBE BOSNIAN PINE	5 GAL	

PERENNIALS				
AMO	13	ACHILLEA X 'MOONSHINE' / MOONSHINE YARROW	1 GAL	
HNS	42	HEUCHERA SANGUINEA 'BLUE CAT GRASS	1 GAL	
HSS	60	HEUCHERA SANGUINEA 'SNOW ANGEL' / VARIEGATED CORAL BELLS	1 GAL	
NWL	49	NEPETA X 'AASSEN' / WALKERS LOW / WALKERS LOW CATMINT	1 GAL	
PVP	51	PANICUM VIRGATUM 'PRAIRIE FIRE' / RED SWITCH GRASS	5 GAL	
PAH	20	PENNISETUM ALOPECUROIDES 'HAMELIN' / DWARF FOUNTAIN GRASS	1 GAL	
PSA	40	PENNISETUM SETICUM ALBA / WHITE FOUNTAIN GRASS	5 GAL	
RFO	19	RUDBECKIA FULGIDA 'GOLDSTURM' / BLACK-EYED SUSAN	1 GAL	
SSP	7	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES' / LITTLE BLUESTEM GRASS	1 GAL	
SED	17	SEDUM X 'DAZZLEBERRY' / DAZZLE BERRY STONECROP	1 GAL	
SES	21	SEDUM X 'KNIGHT RIDER' / KNIGHT RIDER STONECROP	1 GAL	

REQUIRED PLANT MATERIAL - BLOCK 4 OVERALL & PARKING

CODE SECTION	AREA / ITEM	REQUIREMENT	REQUIRED AREA	PROVIDED AREA
7.4.B.1.a	LANDSCAPED AREA	10% AREA REQ. OF 64,608 S.F.	6,460 SF	10,365 SF (16%)
7.4.B.1.b	HARDSCAPED AREA	HARDSCAPED AREA MUST BE LESS THAN 2.0% OF MIN. LANDSCAPED AREA REQ.	< 4,263 SF	3,875 SF
7.3.B.2.b.i	PARKING INTERIOR L.S. AREA	5% AREA REQ. OF 33,018 S.F.	1,651 SF	4,806 SF (7%)
7.1.B.1	PARKING PERIMETER	5' BUFFER @ PERIMETER	5' BUFFER MIN	5' BUFFER
7.3.E	LANDSCAPE ISLANDS	1 TREE / 300 SF OF LANDSCAPED AREA	2,453/300=8	9

LANDSCAPE LEGEND

	DECIDUOUS SHADE TREE
	DECIDUOUS SHRUB
	EVERGREEN SHRUB
	DECIDUOUS ORNAMENTAL TREE
	EVERGREEN TREE

LANDSCAPE MATERIAL LEGEND	
SYMBOL	DESCRIPTION
	2-3" RIVER ROCK MULCH
	NATIVE GRASS, UPLAND BLEND
	NATIVE GRASS, WET MEADOW BLEND
	IRRIGATED TURF
	COBBLE ROCK MULCH

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

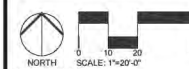
RIPLY DESIGN INC.
Michael Marnett
4119 Canyon Ave. Suite 200
Fort Collins, CO 80521
P: 970.224.5626

OWNER:

COAL CREEK VILLAGE LLC
Michael Marnett
4119 Canyon Ave. Suite 200
Fort Collins, CO 80521
P: 970.224.5626

ENGINEER:

ROCKY RIDGE CIVIL ENGINEERING
Jeff Sanderson
4021 1ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P: 303.651.6666



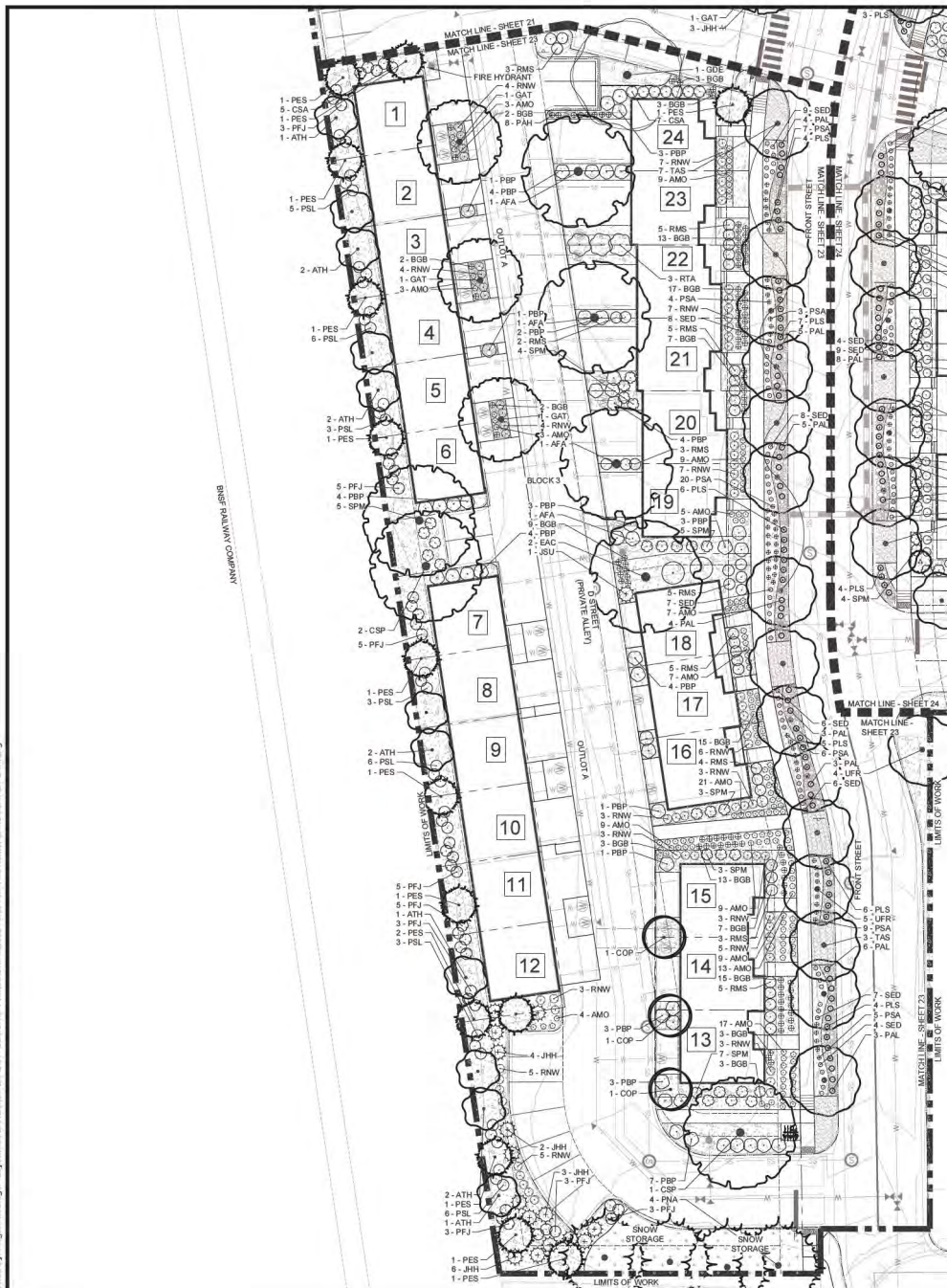
ISSUED		
No.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	09/17/2021
4	PRELIMINARY PUD RD 4	12/03/2022
5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	09/14/2024

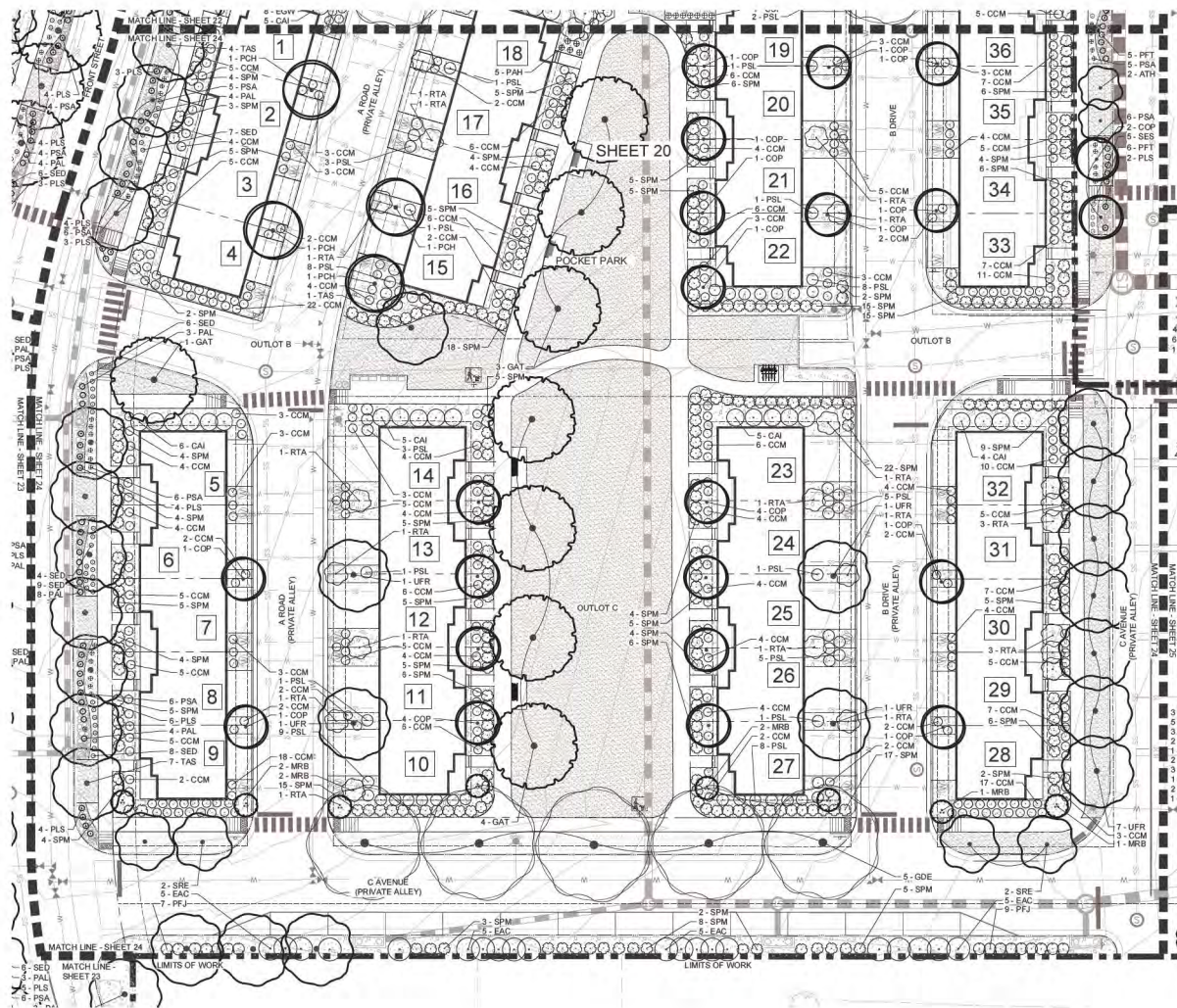
LANDSCAPE PLAN ENLARGEMENT

SEAL:



PROJECT No.: R20-6390
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:





PLANT LEGEND

CODE	QTY	BOTANICAL / COMMON NAME	CONT.	CAL.
DECIDUOUS TREES				
COP	22	CYTHUS OCCIDENTALIS 'PRAIRIE SENTINEL' / PRAIRIE SENTINEL HACKBERRY	B & B	2.5'CAL
GAT	8	GLEDITSIA TRIACANTHOS 'SKYLINE' / SKYLINE HONEY LOCUST	B & B	2.5'CAL
GDE	5	CELANOCHLOA DIOICA 'ESPRESSO' / SEEDLESS KENTUCKY COFFEETREE	B & B	2.5'CAL
TAS	12	TILIA AMERICANA 'SENTRY' / AMERICAN LINDEN	B & B	2.5'CAL
UFR	15	ULMUS 'FRONTIER' / FRONTIER ELM	B & B	2.5'CAL
ORNAMENTAL TREES				
ATH	2	ACER TATARICUM 'HOT WINGS' / HOT WINGS MAPLE	B & B	1.5'CAL
MRB	8	MALUS X 'RED BARON' / RED BARON CRAB APPLE	B & B	1.5'CAL
PCH	4	PYRUS CALLERYANA 'CHANTICLEER' / CHANTICLEER ORNAMENTAL PEAR	B & B	1.5'CAL
SRE	4	SYRINGA RETICULATA / JAPANESE LILAC TREE	B & B	1.5'CAL
DECIDUOUS SHRUBS				
CCM	326	CARYOPTERIS X CLANDONENSIS 'BLUE MIST' / BLUE MIST SPIREA	5 GAL	
CAI	20	CORNUS ALBA 'IVORY HALO' / IVORY HALO VARIEGATED DOGWOOD	5 GAL	
EAC	20	EUNYMIUS ALATUS 'COMPACTUS' / DWARF BURNING BUSH	5 GAL	
PAL	19	PEROVSKIA ATRIPLICIFOLIA 'USSULT' / LACEY BLUE RUSSIAN SAGE	5 GAL	
PSL	57	PHYSCARPUS OPULOLIDUS 'LITTLE DEVIL' TM / DWARF NINEBARK	5 GAL	
PFJ	16	POTENTILLA FRUTICOSA 'JACKMANI' / JACKMAN POTENTILLA	5 GAL	
PFT	10	POTENTILLA FRUTICOSA 'TANGERINE' / TANGERINE BUSH CINQUEFOIL	5 GAL	
RTA	22	RHUS TRILOBATA 'GRD LOW' / SKUNKBUSH SUMAC	5 GAL	
SPM	275	SYRINGA PATULA 'MISS KIM' / MISS KIM DWARF LILAC	5 GAL	
EVERGREEN SHRUBS				
PLS	26	PIRUS LEUCODERMIS 'SMITDI' / DWARF GLOBE BOSNIAN PINE	5 GAL	
PERENNIALS				
PAM	5	PENNISETUM ALOPECUROIDES 'HAMELI' / DWARF FOUNTAIN GRASS	1 GAL	
PSA	33	PENNISETUM SETACEUM 'ALBA' / WHITE FOUNTAIN GRASS	5 GAL	
SED	34	SEDUM X 'DAZZLEBERRY' / DAZZLEBERRY STONECROP	1 GAL	
SES	5	SEDUM X 'KNIGHT RIDER' / KNIGHT RIDER STONECROP	1 GAL	

REQUIRED PLANT MATERIAL - BLOCK 2 OVERALL

CODE SECTION	AREA / ITEM	REQUIREMENT	REQUIRED AREA	PROVIDER AREA
TAB.1.A	LANDSCAPED AREA	LAND AREA REQ. OF 10,148 S.F.	11,819 SF	3679 SF (36%)
TAB.1.B	HANDSCAPED AREA	HANDSCAPED AREA REQ. BELOW THING (S) OF AREA	11,819 SF	1,040 SF

LANDSCAPE LEGEND



LANDSCAPE MATERIAL LEGEND

SYMBOL	DESCRIPTION
[Pattern]	2-3" RIVER ROCK MULCH
[Pattern]	NATIVE GRASS, UPLAND BLEND
[Pattern]	NATIVE GRASS, WET MEADOW BLEND
[Pattern]	BERGAMOT TUFF
[Pattern]	COBBLE ROCK MULCH

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO

PREPARED BY:

DESIGNED BY:

PLANNED BY:

APPROVED BY:

DATE:

SCALE:

PROJECT NO.:

DRAWN BY:

REVIEWED BY:

DRAWING NUMBER:

DATE:

PROJECT NO.:

DRAWN BY:

REVIEWED BY:

DRAWING NUMBER:

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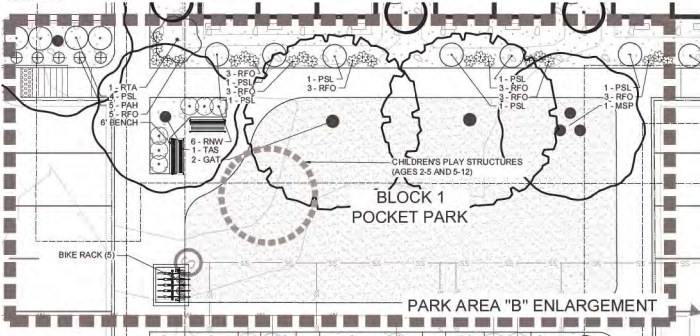
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PARK AREA "B" - ENLARGMENT

SCALE: 1"=10'-0"

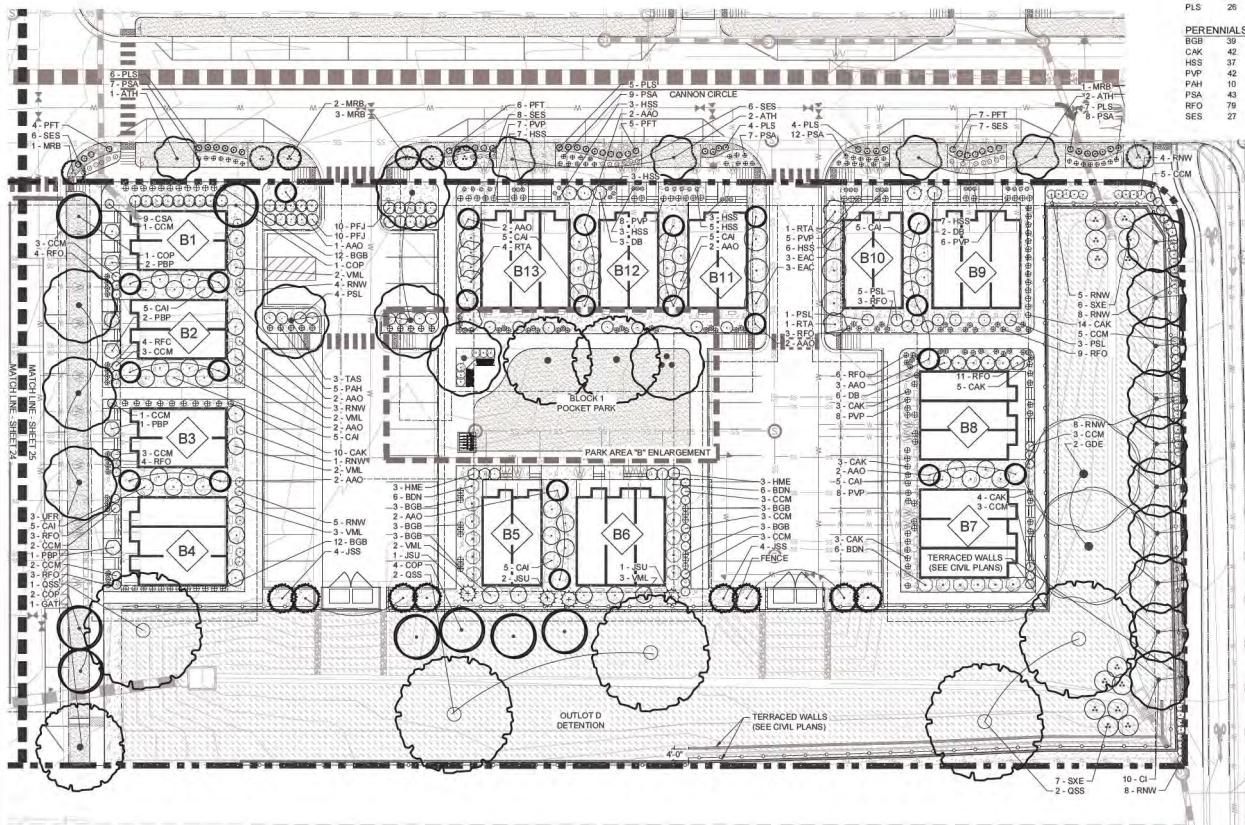


PLANT LEGEND (PARK AREA "B" ENLARGEMENT)

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
DECIDUOUS TREES				
GAT	2	GLEDETIA TRIACANTHOS 'SKYLINE' SKYLINE HONEY LOCUST	B & B	2.5' CAL
TAS	2	40-50 HT. 30'-40" W. TILIA AMERICANA 'SENTRY' AMERICAN LINDEN	B & B	2.5' CAL
ORNAMENTAL TREES				
AAO	3	AMELANCHIER ALNFOLIA 'OBELISK' STANDING OVATION SERVICEBERRY	B & B	1.5' CAL
MSP	1	12-15' HT. 5.2' W. MALLUS 'SPRING SNOW' SPRING SNOW CRAB APPLE	B & B	1.5' CAL
DECIDUOUS SHRUBS				
PSL	11	PHYSCARPUS OPUFULIOLUS 'LITTLE DEVIL' TM	5 GAL	
RTA	1	DWARF NINEBARK 3'-4' HT. 3'-4" W. RHUS TRILOBATA 'GRO LOW' SKUNKBUSH SUMAC	5 GAL	
RNV	6	2'-3' HT. 6'-8" W. ROSA X 'NEARLY WILD' NEARLY WILD SHRUB ROSE	5 GAL	
PERENNIALS				
PAH	5	PENNISTEM ALOPECUROIDES 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL	
RFO	23	18"-24" HT. 18"-24" W. BLACK-EYED SUSAN 'GOLDSTURM'	1 GAL	

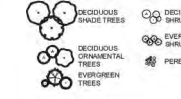
PLANT LEGEND

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
DECIDUOUS TREES					
COP	8	CELTIS OCCIDENTALIS 'PRAIRIE SENTINEL' / PRAIRIE SENTINEL HACKBERRY	B & B	2.5' CAL	
GAT	3	GLEDETIA TRIACANTHOS 'SKYLINE' / SKYLINE HONEY LOCUST	B & B	2.5' CAL	
GDE	2	GYMNOCLADUS DIOICA 'ESPRESSO' / SEEDLESS KENTUCKY COFFEETREE	B & B	2.5' CAL	
OSS	5	QUERCUS SHUMARDI / SHUMARD RED OAK	B & B	2.5' CAL	
TAS	4	TILIA AMERICANA 'SENTRY' / AMERICAN LINDEN	B & B	2.5' CAL	
UFR	3	ULMUS 'FRONTIER' / FRONTIER ELM	B & B	2.5' CAL	
EVERGREEN TREES					
JSS	8	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNPER	B & B		6' HT
ORNAMENTAL TREES					
ATH	5	ACER TATARICUM 'HOT WINGS' / HOT WINGS MAPLE	B & B	1.5' CAL	
AAO	22	AMELANCHIER ALNFOLIA 'OBELISK' / STANDING OVATION SERVICEBERRY	B & B	1.5' CAL	
CI	10	CRATAEGUS CRUS-GALLI INERMIS / THORNLESS COCKSPUR HAWTHORN	B & B	1.5' CAL	
MSP	1	MALLUS 'SPRING SNOW' / SPRING SNOW CRAB APPLE	B & B	1.5' CAL	
MSB	7	MALUS X 'RED BARRON' / RED BARRON CRAB APPLE	B & B	1.5' CAL	
DECIDUOUS SHRUBS					
BON	18	BUDDELLA DAVIDI NANHOENSIS 'PETITE SNOW' / COMPACT BUTTERFLY BUSH	5 GAL		
COM	40	CARYOPHTERIS CLANDONENSIS 'BLUE MIST' / BLUE MIST SPIREA	5 GAL		
CAI	40	CORNUS ALBA 'VORY HALO' / VORY HALO VAREGATED DOGWOOD	5 GAL		
CSA	9	CORNUS SERICEA 'ARCTIC FIRE' / ARCTIC FIRE RED TWIG DOGWOOD	5 GAL		
DB	11	DAPHNE X BURKWOODII 'CAROL MACKIE' / CAROL MACKIE DAPHNE	5 GAL		
EAC	6	EUONYMUS ALATUS 'COMPACTUS' / DWARF BURNING BUSH	5 GAL		
HME	6	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER' / ENDLESS SUMMER HYDRANGEA	5 GAL		
PSL	24	PHYSCARPUS OPUFULIOLUS 'LITTLE DEVIL' TM / DWARF NINEBARK	5 GAL		
PEJ	20	POTENTILLA FRUTICOSA 'JACKMAN' / JACKMAN POTENTILLA	5 GAL		
PFT	22	POTENTILLA FRUTICOSA 'TANGERINE' / TANGERINE BUSH CINQUEFOIL	5 GAL		
PRP	6	PRUNUS BESSER 'PAWNE BUTTES' / DWARF WESTERN SAND CHERRY	5 GAL		
RTA	7	RHUS TRILOBATA 'GRO LOW' / SKUNKBUSH SUMAC	5 GAL		
RNV	52	ROSA X 'NEARLY WILD' / NEARLY WILD SHRUB ROSE	5 GAL		
SKE	13	SALEKOEGLIA / COYOTE WILLOW	5 GAL		
VNL	14	VEURNUM LENTAGO / NANNYBERRY	5 GAL		
EVERGREEN SHRUBS					
JSU	4	JUNIPERUS SABINA 'BUFFALO' / BUFFALO JUNPER	5 GAL		
PLS	26	PINUS LEUCODERMIS 'SMIDTII' / DWARF GLOBE BOSNIAN PINE	5 GAL		
PERENNIALS					
BGB	39	BOULETELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION GRAMA GRASS	1 GAL		
CAK	42	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	1 GAL		
HBS	37	HEUCHERA SANGUINEA 'SNOW ANGEL' / VARIATED CORAL BELLS	1 GAL		
PVP	42	PANICUM VIRGATUM 'PRAIRIE FIRE' / RED SWITCH GRASS	5 GAL		
FAH	10	PENNISTEM ALOPECUROIDES 'HAMELN' / DWARF FOUNTAIN GRASS	1 GAL		
PSA	43	PENNISTEM SETACEUM 'ALEX' / WHITE FOUNTAIN GRASS	5 GAL		
RFO	79	RUDECKIA FULGIDA 'GOLDSTURM' / BLACK-EYED SUSAN	1 GAL		
SES	27	SEDUM X 'KNIGHT RIDER' / KNIGHT RIDER STONECROP	1 GAL		



CODE	SECTION	AREA (SQ. FT.)	REQUIRED	PROPOSED AREA	PROPOSED AREA
TAB.1a	LANDSCAPED AREA	65,448.00	65,448.00	17,790.00	17,790.00
TAB.1b	LANDSCAPED AREA	65,448.00	65,448.00	17,790.00	17,790.00
TAB.2a	PARKING INTERIOR L.S. AREA	1,320.00	1,320.00	1,320.00	1,320.00
TAB.1c	PARKING PERIMETER	1,320.00	1,320.00	1,320.00	1,320.00
TAB.3	LANDSCAPE ISLANDS	1,320.00	1,320.00	1,320.00	1,320.00

LANDSCAPE LEGEND



SYMBOL	DESCRIPTION
	2.5' RIVER ROCK MULCH
	NATIVE GRASS, UPLAND BLEND
	NATIVE GRASS, WET MEADOW BLEND
	IRRIGATED TURF
	COBBLE ROCK MULCH

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

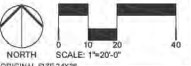
LOUISVILLE, COLORADO
PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT
RIPLEY DESIGN INC.
Joe Wehler
4119 Canyon Ave. Suite 201
Fort Collins, CO 80521
P: 970.224.5625

OWNER
COAL CREEK VILLAGE LLC
Michael Marini
2723 MARIPAGE AVE
BOULDER, COLORADO 80303
P: 303.773.5554

ENGINEER
ROCKY RIDGE CIVIL ENGINEERING
Joni Lindstrom
4021 1ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P: 303.481.6666



NO.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	09/17/2021
4	PRELIMINARY PUD RD 4	12/23/2021
5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	09/14/2024

LANDSCAPE PLAN ENLARGEMENT

SEAL:

ENTITLEMENT DRAWINGS NOT FOR CONSTRUCTION

PROJECT NO: R20-030
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:

PLANT SCHEDULE

SYMBOL	CODE	QTY	REMARKS	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	SYMBOL	CODE	QTY	REMARKS	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS TREES								DECIDUOUS SHRUBS					
	AFA	4	40'-50' HT. 30'-40' W.	ACER X FREEMANI AUTUMN BLAZE / AUTUMN BLAZE MAPLE	B & B	2.5"	CAL		AAR	10	6'-8' HT. 6'-8' W.	AMELANCHER ALNIFOLIA 'REGENT' / REGENT SERVICEBERRY	5 GAL
	CSP	3	40'-60' HT. 30'-50' W.	CATALPA SPECIOSA / WESTERN CATALPA	B & B	2.5"	CAL		BDN	18	4'-6' HT. 4'-5' W.	BUDDLEIA DAVIDI NANOENSIS 'PETITE SNOW' / COMPACT BUTTERFLY BUSH	5 GAL
	COP	38	35'-45' HT. 10'-12' W.	CELTIS OCCIDENTALIS 'PRAIRIE SENTINEL' / PRAIRIE SENTINEL HACKBERRY	B & B	2.5"	CAL		CCM	389	3'-4' HT. 2'-3' W.	CARYOPTERIS X CLANDONENSIS 'BLUE MIST' / BLUE MIST SPIREA	5 GAL
	GAT	26	40'-50' HT. 30'-40' W.	GLEDITSIA TRIACANTHOS 'SKYLINE' / SKYLINE HONEY LOCUST	B & B	2.5"	CAL		CAI	66	5'-6' HT. 5'-6' W.	CORNUS ALBA 'IVORY HALO' / IVORY HALO VARIEGATED DOGWOOD	5 GAL
	GDE	13	50'-60' HT. 40'-50' W.	GYMNOCLADUS DIOICA 'ESPRESSO' / SEEDLESS KENTUCKY COFFEETREE	B & B	2.5"	CAL		CSA	44	3'-4' HT. 3'-4' W.	CORNUS SERICEA 'ARCTIC FIRE' / ARCTIC FIRE RED TWIG DOGWOOD	5 GAL
	PAC	4	70'-100' HT. 65'-80' W.	PLATANUS X ACERIFOLIA 'BLOODGOOD' / BLOODGOOD LONDON PLANETREE	B & B	2.5"	CAL		CSK	6	2'-3' HT. 2'-3' W.	CORNUS SERICEA 'KELSEY' / KELSEY DWARF DOGWOOD	5 GAL
	QSS	5	40'-50' HT. 30'-40' W.	QUERCUS SHUMARDII / SHUMARD RED OAK	B & B	2.5"	CAL		CDI	13	4'-6' HT. 6'-8' W.	COTONEASTER DIVARICATUS / SPREADING COTONEASTER	5 GAL
	TAS	28	50'-60' HT. 30'-50' W.	TILIA AMERICANA 'SENTRY' / AMERICAN LINDEN	B & B	2.5"	CAL		DB	11	3'-5' HT. 3'-5' W.	DAPHNE X BURKWOODII 'CAROL MACKIE' / CAROL MACKIE DAPHNE	5 GAL
	UFR	31	25'-35' HT. 15'-25' W.	ULMUS 'FRONTIER' / FRONTIER ELM	B & B	2.5"	CAL		EAC	28	6'-8' HT. 6'-8' W.	EUONYMUS ALATUS 'COMPACTUS' / DWARF BURNING BUSH	5 GAL
EVERGREEN TREES									HME	44	3'-5' HT. 3'-5' W.	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER' / ENDLESS SUMMER HYDRANGEA	5 GAL
	JCB	8	8'-12' HT. 5'-6' W.	JUNIPERUS CHINENSIS 'BLUE POINT' / BLUE POINT JUNIPER	B & B		6' HT		PAL	95	18-24" X 18-24" W	PEROVSKIA ATRIPLICIFOLIA 'LISSUTT' / LACEY BLUE RUSSIAN SAGE	5 GAL
	JSS	8	20'-30' HT. 10'-15' W.	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER	B & B		6' HT		PSL	140	3'-4' HT. 3'-4' W.	PHYSCARPUS OPULIFOLIUS 'LITTLE DEVIL' TM / DWARF NINEBARK	5 GAL
	PES	17	20'-30' HT. 10'-20' W.	PINUS EDULIS / PINYON PINE	B & B		6' HT		PFJ	93	2'-3' HT. 3'-4' W.	POTENTILLA FRUTICOSA 'JACKMANII' / JACKMAN POTENTILLA	5 GAL
	PNA	8	40'-60' HT. 30'-40' W.	PINUS NIGRA / AUSTRIAN PINE	B & B		6' HT		PFT	43	18-24" X 18-24" W	POTENTILLA FRUTICOSA 'TANGERINE' / TANGERINE BUSH CINQUEFOIL	5 GAL
ORNAMENTAL TREES									PBP	90	15'-30' HT. 4'-6' W.	PRUNUS BESSEYI 'PAWNEE BUTTES' / DWARF WESTERN SAND CHERRY	5 GAL
	ATH	30	18'-20' HT. 15'-20' W.	ACER TATARICUM 'HOT WINGS' / HOT WINGS MAPLE	B & B	1.5"	CAL		RTA	63	2'-3' HT. 6'-8' W.	RHUS TRILOBATA 'GRO LOW' / SKUNKBUSH SUMAC	5 GAL
	AAO	22	12'-15' HT. 9'-7' W.	AMELANCHER ALNIFOLIA 'OBELISK' / STANDING OVATION SERVICEBERRY	B & B	1.5"	CAL		RMS	59	2'-4' HT. 2'-3' W.	ROSA SHRUB 'MORDEN SUNRISE' / MORDEN SUNRISE SHRUB ROSE	5 GAL
	CI	23	15'-25' HT. 15'-20' W.	CRATAEGUS CRUS-GALLI INERMIS / THORNLESS COCKSPUR HAWTHORN	B & B	1.5"	CAL		RNW	140	2'-3' HT. 2'-3' W.	ROSA X 'NEARLY WILD' / NEARLY WILD SHRUB ROSE	5 GAL
	MSP	1	20'-25' HT. 20'-25' W.	MALUS 'SPRING SNOW' / SPRING SNOW CRAB APPLE	B & B	1.5"	CAL		SXE	13	6'-12' HT. 4'-8' W.	SALIX EXIGUA / COYOTE WILLOW	5 GAL
	MRB	33	15'-18' HT. 7'-8' W.	MALUS X 'RED BARRON' / RED BARRON CRAB APPLE	B & B	1.5"	CAL		SPM	352	3'-5' HT. 3'-5' W.	SYRINGA PATULA 'MISS KIM' / MISS KIM DWARF LILAC	5 GAL
	PCH	9	20'-30' HT. 15'-20' W.	PYRUS CALLERYANA 'CHANTICLEER' / CHANTICLEER ORNAMENTAL PEAR	B & B	1.5"	CAL		VML	24	8'-15' HT. 6'-8' W.	VIBURNUM LENTAGO / NANNYBERRY	5 GAL
	SRE	4	15'-25' HT. 15'-20' W.	SYRINGA RETICULATA / JAPANESE LILAC TREE	B & B	1.5"	CAL	EVERGREEN SHRUBS					
									EGW	8	18'-24" HT. 3'-4' W.	EUONYMUS FORTUNEI 'EMERALD GAUITY' TM / EMERALD GAUITY WINTERCREEPER	5 GAL
									JHH	37	1'-2' HT. 5'-8' W.	JUNIPERUS HORIZONTALIS 'HUGHES' / HUGHES JUNIPER	5 GAL
									JSU	26	12'-18" HT. 6'-8' W.	JUNIPERUS SABINA 'BUFFALO' / BUFFALO JUNIPER	5 GAL
									PLS	137	1-2H X 1-2W	PINUS LEUCODERMIS 'SMIDTII' / DWARF GLOBE BOSNIAN PINE	5 GAL
									PMB	1	6'-8' HT. 5'-8' W.	PINUS MUGO 'BIG TUNA' / BIG TUNA MUGO PINE	10 GAL
								PERENNIALS					
									AMO	141	24"-30" HT. 18"-24" W.	ACHILLEA X 'MOONSHINE' / MOONSHINE YARROW	1 GAL
									BGB	156	30"-36" HT. 20"-24" W.	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION GRAMA GRASS	1 GAL
									CAK	42	4'-5' HT. 18"-24" W.	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / FEATHER REED GRASS	1 GAL
									HSE	13	2'-3' HT. 18"-24" W.	HELIOTRICHON SEMPERVIRENS / BLUE AVENA GRASS	1 GAL
									HNS	42	2'-3' HT. 2'-3' W.	HELIOTRICHON SEMPERVIRENS / BLUE OAT GRASS	1 GAL
									HSS	57	12"-18" HT. 10"-15" W.	HEUCHERA SANGUINEA 'SNOW ANGEL' / VARIEGATED CORAL BELLS	1 GAL
									NWL	49	18"-24" HT. 2'-3' W.	NEPETA X FAASSENII 'WALKERS LOW' / WALKERS LOW CATMINT	1 GAL
									PVP	93	4-5H X 2W	PANICUM VIRGATUM 'PRAIRIE FIRE' / RED SWITCH GRASS	5 GAL
									PAH	58	1'-2" HT. 12"-18" W.	PENNISETUM ALOPECUROIDES 'HAMELN' / DWARF FOUNTAIN GRASS	1 GAL
									PSA	201	1-2H X 12-18"W	PENNISETUM SETACEUM 'ALBA' / WHITE FOUNTAIN GRASS	5 GAL
									RFO	58	18"-24" HT. 18"-24" W.	RUDBECKIA FULGIDA 'GOLDSTURM' / BLACK-EYED SUSAN	1 GAL
									SSP	25	3'-4" HT. 15"-18"	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES' / LITTLE BLUESTEM GRASS	1 GAL
									SED	144	6-8"H X 15-18"W	SEDUM X 'DAZZLEBERRY' / DAZZLEBERRY STONECROP	1 GAL
									SES	53	20-24"H X 12-18"W	SEDUM X 'KNIGHT RIDER' / KNIGHT RIDER STONECROP	1 GAL

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO
PREPARED BY:



PLANNING / LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
Joe Whelan
4118 Canyon Ave. Suite 200
Fort Collins, CO 80521
P. 970.224.5628

OWNER

COAL CREEK VILLAGE LLC
Michael Marini
5723 ARAPAHO AVE.
BOULDER, COLORADO 80303
P.303.451.8524

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Jed Swanson
400 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P. 303.651.8626

ORIGINAL SIZE 24X36

ISSUED		DATE
No.	DESCRIPTION	
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	09/17/2021
4	PRELIMINARY PUD RD 4	12/03/2022
5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	09/14/2024
REVISIONS		DATE
No.	DESCRIPTION	

PLANT SCHEDULE

SEAL



PROJECT NO.: R20-050
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:

28 OF 32

HYDROZONE	AREA (SF)	WATER NEEDED (GALLONS/SF)	ANNUAL WATER USE (GALLONS)
HIGH	33,072	18	595,296
MODERATE	62,786	14	879,004
LOW	38,836	8	310,688
TOTAL	134,694	13.25	1,784,988

Printed By: Megan McCreary Layout: TREE INVENTORY Printed On: 3/28/2024 4:52 PM File Name: TREE INVENTORY.dwg

TREE MITIGATION LEGEND



NOTES:
1. THIS PLAN IS REPRESENTATIVE ONLY. FIELD VERIFY BEFORE REMOVAL OF ANY TREE.
2. TREES SHOWN ON PLAN BUT NOT IDENTIFIED IN MITIGATION TABLE WERE DEEMED AS INVASIVE AND ARE TO BE REMOVED BY ARBORIST. INVASIVE TREE SPECIES INCLUDE: SIBERIAN ELM (*ULMUS PUMILA*) AND RUSSIAN OLIVE (*ELAEAGNUS ANGUSTIFOLIA*).

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO
PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

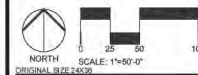
RIPLY DESIGN INC.
JOHN WHELAN
419 CANYON AVE. SUITE 200
FREDERICK, CO 80521
P: 970.224.5626

OWNER:

COAL CREEK VILLAGE LLC
MICHAEL MARSH
2723 MARIPAJE AVE.
BOULDER, COLORADO 80303
P: 303.775.6544

ENGINEER:

ROCKY RIDGE CIVIL ENGINEERING
JIM STEWART
4202 1ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P: 303.481.6666



ISSUED		
NO.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/22/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	09/17/2022
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5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	06/14/2024

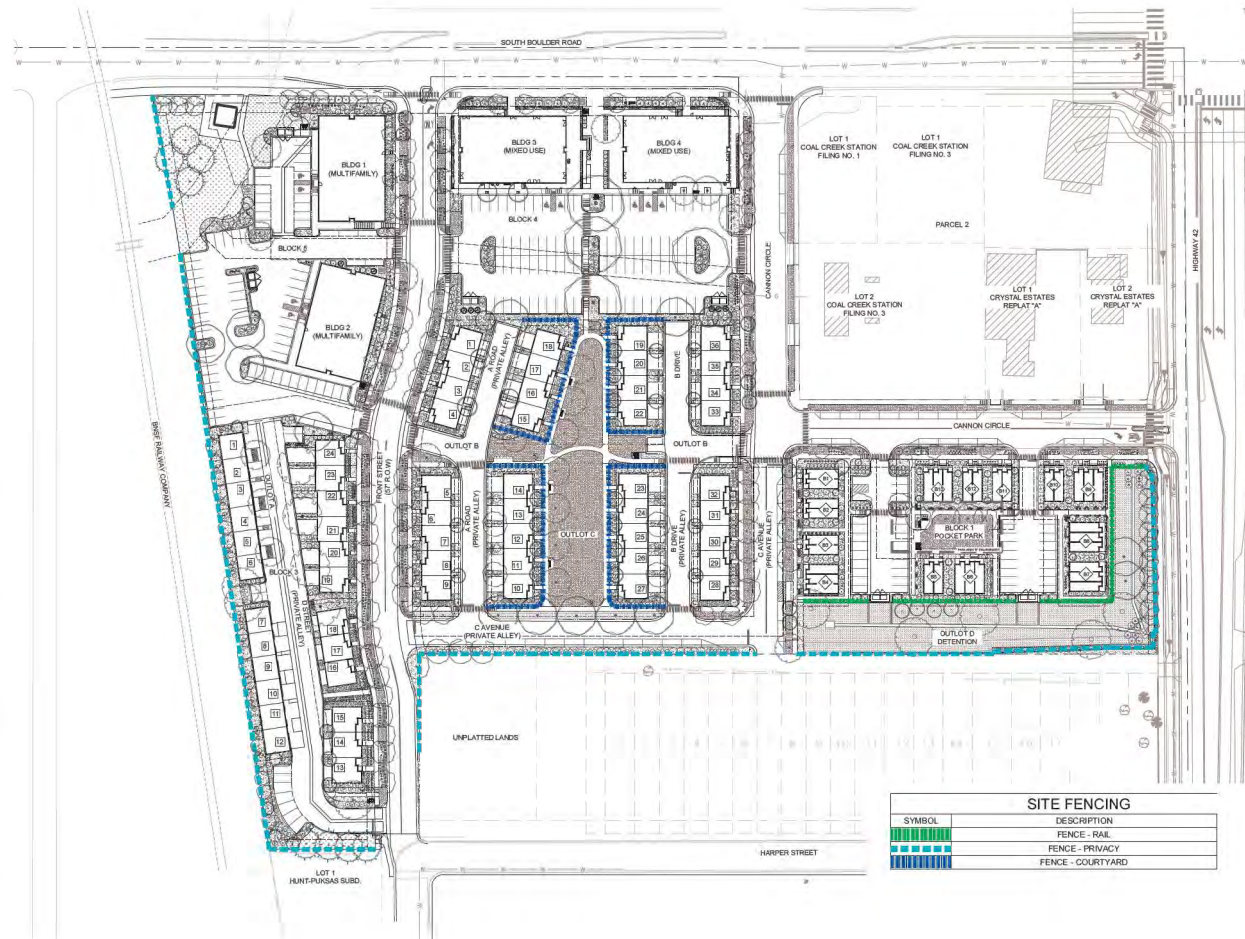
REVISIONS		
NO.	DESCRIPTION	DATE

TREE INVENTORY PLAN

SEAL:



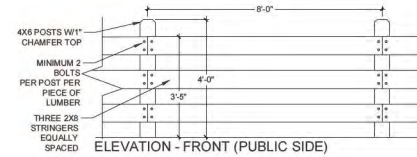
PROJECT NO.: R20-030
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:



SYMBOL	DESCRIPTION
[Green dashed line]	FENCE - RAIL
[Blue dashed line]	FENCE - PRIVACY
[Blue dashed line]	FENCE - COURTYARD



- NOTE:
1. UNLESS OTHERWISE REQUESTED ALL WOOD TO BE EITHER STAINED RED CEDAR OR COMPOSITE WOOD SUCH AS TREX OR SIMILAR BRAND.
 2. ALL FASTENERS & GLUES TO BE WEATHER PROOF TOP OF FENCE TO BE LEVEL BOTTOM OF FENCE TO STEP WITH GRADE AS NEEDED FENCE MAY STEP DOWN AT POSTS IN 6" INCREMENTS IF NECESSARY



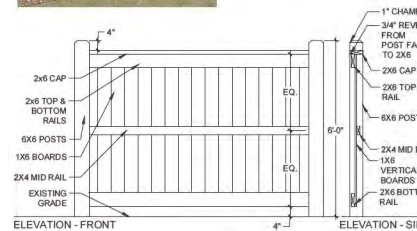
1 RAIL FENCE

1/2" = 1'-0"

CP-S-05



- NOTE:
1. UNLESS OTHERWISE REQUESTED ALL WOOD TO BE EITHER STAINED RED CEDAR OR COMPOSITE WOOD SUCH AS TREX OR SIMILAR BRAND.
 2. ALL FASTENERS & GLUES TO BE WEATHER PROOF TOP OF FENCE TO BE LEVEL BOTTOM OF FENCE TO STEP WITH GRADE AS NEEDED FENCE MAY STEP DOWN AT POSTS IN 6" INCREMENTS IF NECESSARY



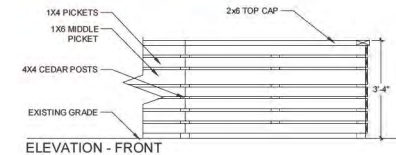
2 PRIVACY FENCE

1/2" = 1'-0"

CP-S-07



- NOTE:
1. UNLESS OTHERWISE REQUESTED ALL WOOD TO BE EITHER STAINED RED CEDAR OR COMPOSITE WOOD SUCH AS TREX OR SIMILAR BRAND.
 2. ALL FASTENERS & GLUES TO BE WEATHER PROOF TOP OF FENCE TO BE LEVEL BOTTOM OF FENCE TO STEP WITH GRADE AS NEEDED FENCE MAY STEP DOWN AT POSTS IN 6" INCREMENTS IF NECESSARY



3 COURTYARD FENCE

1/2" = 1'-0"

CP-S-08

COAL CREEK VILLAGE

PRELIMINARY PUD AND SRU

LOUISVILLE, COLORADO
PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
Joel Wehner
419 Canyon Ave. Suite 200
Fort Collins, CO 80521
P. 970.224.9528

OWNER

COAL CREEK VILLAGE LLC
Michael Marini
5723 ARAPAHO AVE.
BOULDER, COLORADO 80303
P.303.778.9274

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
Joe Steinhilber
400 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P. 303.681.6626



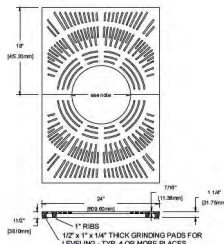
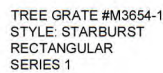
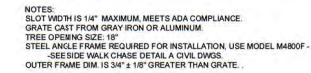
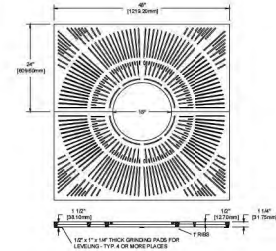
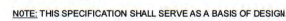
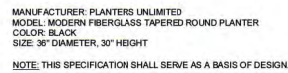
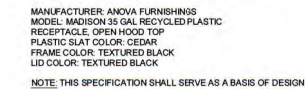
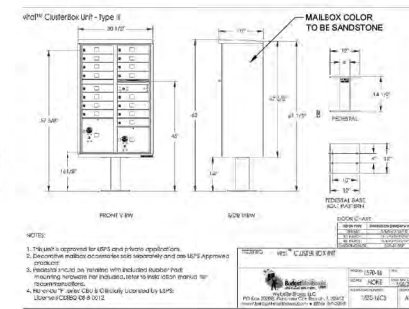
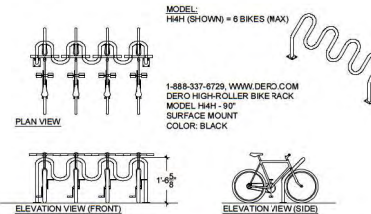
ISSUED	DESCRIPTION	DATE
1	PRELIMINARY PUD	5/12/2021
2	PRELIMINARY PUD RD 2	06/21/2021
3	PRELIMINARY PUD RD 3	06/17/2022
4	PRELIMINARY PUD RD 4	12/23/2022
5	PRELIMINARY PUD RD 5	08/04/2023
6	PRELIMINARY PUD RD 6	05/14/2024
REVISIONS	DESCRIPTION	DATE

FENCING PLAN

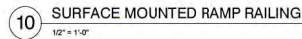
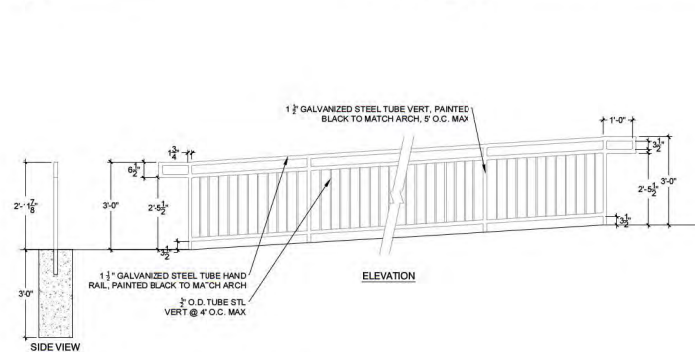
SEAL:



PROJECT NO.: R20-030
DRAWN BY:
REVIEWED BY:
DRAWING NUMBER:



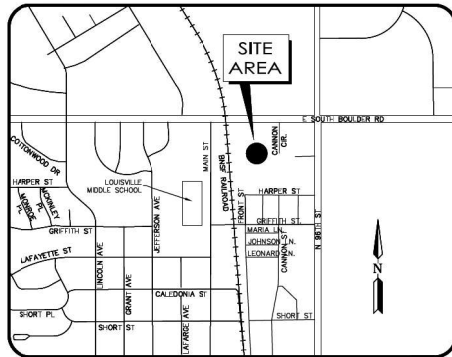
NOTES:
SLOT WIDTH IS 1/4" MAXIMUM, MEETS ADA COMPLIANCE.
GRATE CAST FROM GRAY IRON OR ALUMINUM
TREE OPENING SIZE: 16", 18", OR 28"
STEEL ANGLE FRAME REQUIRED FOR INSTALLATION USE MODEL M24X36F
OUTER FRAME DIM. IS 3/4" ± 1/8"
GREATER THAN GRATE. .



COAL CREEK VILLAGE

PRELIMINARY PLAT

A RESUBDIVISION OF PORTIONS OF COAL CREEK STATION FILING NO 1 AND CALEDONIA PLACE, TOGETHER WITH ALL OF COAL CREEK STATION FILING NO. 2, ALSO TOGETHER WITH OTHER LANDS, LYING WITHIN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO
SHEET 1 OF 5



VICINITY MAP
Not to scale

INDEX TO SHEETS

- 1 COVER SHEET
- 2 HISTORIC PLATTING INFORMATION
- 3 PRELIMINARY PLAT PLAN
- 4 NEW EASEMENT INFORMATION
- 5 LINE AND CURVE TABLES

LAND USE SUMMARY

	AREA	USE	OWNERSHIP	MAINTENANCE
OUTLOT A	0.585 AC.	PRIVATE ROAD, DRAINAGE, PUBLIC UTILITY & MAINTENANCE, LANDSCAPE, ACCESS EASEMENT	HOA	HOA
OUTLOT B	1.238 AC.	PRIVATE ROAD, DRAINAGE, PUBLIC UTILITY & MAINTENANCE, LANDSCAPE, ACCESS EASEMENT	HOA	HOA
OUTLOT C	0.483 AC.	DRAINAGE, UTILITY, LANDSCAPE, PEDESTRIAN ACCESS, PARK	HOA	HOA
OUTLOT D	0.606 AC.	PRIVATE ROAD, DRAINAGE, UTILITY, LANDSCAPE, PEDESTRIAN ACCESS & EMERGENCY ACCESS EASEMENT	HOA	HOA
RIGHT OF WAY DEDICATION	1.235 AC.	PUBLIC STREETS	CITY	CITY

OWNER / SUBDIVIDER

COAL CREEK VILLAGE LLC
1723 ASPENWAY AVE., SUITE B2
BOULDER, CO 80301
(303) 449-8889

CONTACT: MICHAEL MARKEL / CHAD KIPPER

CIVIL ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
420 31ST AVENUE, SUITE 101
LONGMONT, CO 80501
(303) 651-6626

LEGAL DESCRIPTION

KNOW ALL MEN BY THESE PRESENTS, THAT RIDGELINE DEVELOPMENT CORPORATION, BEING THE OWNERS OF THE LANDS DESCRIBED HEREIN, LYING WITHIN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PORTION OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER (NE 1/4), FROM WHENCE THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER (NE 1/4) BEARS NORTH 89°58'20" WEST A DISTANCE OF 2642.02 FEET, WITH ALL BEARINGS HEREIN RELATED THERE TO;
THENCE ALONG THE EAST LINE OF SAID NORTHEAST QUARTER (NE 1/4), SOUTH 00°18'01" EAST, 30.00 FEET TO THE SOUTH LINE OF SOUTH BOULDER ROAD;
THENCE LEAVING SAID EAST LINE, ALONG SAID SOUTH LINE OF SOUTH BOULDER ROAD, NORTH 89°58'20" WEST, 455.00 FEET TO THE WEST LINE OF CANNON CIRCLE, AND BEING THE POINT OF BEGINNING;

THENCE ALONG SAID WEST LINE OF CANNON CIRCLE, SOUTH 00°17'50" EAST, 380.01 TO A POINT OF INTERSECTION WITH THE SOUTH LINE OF CANNON CIRCLE;

THENCE ALONG SAID SOUTH LINE, SOUTH 89°58'20" EAST, 425.02 FEET TO THE WEST LINE OF NORTH 96TH STREET;

THENCE ALONG SAID WEST LINE, SOUTH 00°18'01" EAST, 199.89 FEET TO THE NORTHEAST CORNER OF THE ROBERT D' GIACOMO SUBDIVISION, SAID POINT ALSO BEING ON THE NORTH LINE OF A 20 FOOT WIDE PUBLIC ALLEY;

THENCE ALONG SAID NORTH LINE, NORTH 89°58'20" WEST, 754.89 FEET TO THE NORTHWEST CORNER OF A PARCEL OF LAND DESCRIBED AND CONVEYED IN THAT CERTAIN OUTCLAIM DEED RECORDED DECEMBER 14, 2014 AT RECEPTION No. 03275254;
THENCE ALONG THE WEST LINE OF SAID PARCEL, SOUTH 00°01'40" WEST, 184.00 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL, SAID POINT ALSO BEING ON THE NORTH LINE OF HARPER STREET;

THENCE ALONG SAID NORTH LINE, NORTH 89°58'20" WEST, 39.06 FEET TO A POINT OF INTERSECTION WITH THE WEST LINE OF FRONT STREET;

THENCE ALONG SAID WEST LINE, SOUTH 00°18'07" EAST, 16.00 FEET TO A POINT OF INTERSECTION WITH THE NORTH LINE OF LOT 1 OF HUNT-PUKASAS SUBDIVISION;

THENCE ALONG SAID NORTH LINE, NORTH 89°58'20" WEST, 114.35 FEET TO A POINT ON THE EAST LINE OF THE B.N.S.F. RAILROAD RIGHT-OF-WAY;

THENCE ALONG SAID EAST LINE THE FOLLOWING SEVEN (7) COURSES:

1. NORTH 08°30'12" WEST, 471.84 FEET TO A POINT;
2. NORTH 08°28'40" WEST, 61.59 FEET TO A POINT;
3. NORTH 08°32'07" WEST, 78.23 FEET TO A POINT;
4. NORTH 08°23'12" WEST, 43.90 FEET TO A POINT;
5. NORTH 08°49'41" WEST, 43.90 FEET TO A POINT;
6. NORTH 10°34'58" WEST, 43.90 FEET TO A POINT;
7. NORTH 11°44'18" WEST, 15.01 FEET TO A POINT ON THE SOUTH LINE OF SOUTH BOULDER ROAD;

THENCE ALONG SAID SOUTH LINE THE FOLLOWING THREE (3) COURSES:

1. SOUTH 89°58'20" EAST, 265.10 FEET TO A POINT;
2. NORTH 00°17'50" WEST, 26.00 FEET TO A POINT;
3. SOUTH 89°58'20" EAST, 315.00 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL OF LOT 2 OF COAL CREEK STATION FILING NO. 2.

CONTAINING 440,180 TOTAL SQUARE FEET OR 10.105 TOTAL ACRES OF LAND, MORE OR LESS.

GENERAL NOTES

1. NOTICE: ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT, OR LAND BOUNDARY MONUMENT OR ACCESSORY, COMMITS A CLASS 2 MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508 C.R.S.
2. NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.
3. THE LINEAR UNIT OF MEASUREMENT FOR THIS SUBDIVISION PLAT IS THE U.S. SURVEY FOOT, DEFINED AS EXACTLY 1200/3937 METERS
4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY POWER SURVEYING INC. FOR INFORMATION REGARDING BOUNDARY, EASEMENTS AND TITLE POWER SURVEYING RELIED UPON OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY TITLE COMMITMENT NO. AB270663385-4, WITH AN EFFECTIVE DATE OF MAY 27, 2021 AT 5:00 P.M.
5. ALL SINGLE FAMILY DETACHED, FEE SIMPLE LOTS HAVE 5' DRAINAGE EASEMENTS ALONG SHARED/COMMON LOT LINES TO ALLOW FOR CONVEYANCES OF STORM WATER RUNOFF, CONSTRUCTION OF IMPROVEMENTS, BEYOND THOSE DEPICTED ON THE CITY APPROVED CONSTRUCTION PLANS, OR MODIFICATION OF LOT DRAINAGE CHARACTERISTICS IS STRICTLY PROHIBITED.
6. THE CITY OF LOUISVILLE SHALL REVIEW AND APPROVE THE LOCATIONS OF UTILITY LINES, PEDESTALS AND CABINETS WITHIN PUBLIC PROPERTY AND WITHIN CITY OF LOUISVILLE EXCLUSIVE WATER, STORM AND SANITARY SEWER EASEMENTS.
7. THE MINIMUM SEPARATION BETWEEN WATER AND SANITARY SHALL BE 10" OUTSIDE OF PIPE TO OUTSIDE OF PIPE SEPARATION BETWEEN ALL OTHER UTILITIES SHALL NOT BE LESS THAN 7" TO THE EXTENT PRACTICAL BASED ON CONSTRUCTIBILITY, COST, RIGHT-OF-WAY AND ASSOCIATED STREET WIDTHS, ETC. THE CITY WILL WORK WITH THE SUBDIVIDER TO GENERATE PRACTICAL SOLUTIONS FOR AREAS OF UTILITY SEPARATION CONCERNS.
8. EXCLUSIVE CITY UTILITY EASEMENTS ARE RESERVED FOR CITY OF LOUISVILLE EXCLUSIVE USE FOR CITY WATER, SANITARY SEWER AND STORM SEWER FACILITIES. DRY UTILITIES COMPANIES AND/OR PRIVATE OWNERS OF STORM DRAINAGE AND IRRIGATION LINES MUST OBTAIN PRIOR WRITTEN APPROVAL FROM THE CITY FOR ANY PROPOSED CROSSING OF ANY CITY WET UTILITY EASEMENTS AND MUST EXECUTE AN AGREEMENT WHICH STIPULATES THE DRY UTILITIES, STORM DRAINAGE AND/OR IRRIGATION LINES APPROVED TO CROSS CITY EASEMENTS ARE SUBJECT TO RELOCATION AT THE COMPANY'S OR OWNERS' EXPENSE AT THE DIRECTION OF THE CITY. DRY UTILITIES, STORM DRAINAGE AND/OR IRRIGATION LINES THAT ARE APPROVED TO CROSS CITY EASEMENTS SHALL DO SO AT SUBSTANTIALLY RIGHT ANGLES. WET UTILITIES MAY TRANSVERSE DRY UTILITY EASEMENTS WITHOUT REQUIREMENT FOR FURTHER PERMISSION, NO JOINT USE OF ANY CITY EXCLUSIVE UTILITY EASEMENT IS PERMITTED WITHOUT EXPRESS WRITTEN APPROVAL OF THE CITY AND EXECUTION OF A JOINT USE AGREEMENT, WHICH SHALL BE AT THE CITY'S DISCRETION.
9. UTILITY EASEMENTS ARE DEDICATED TO THE CITY OF LOUISVILLE FOR THE BENEFIT OF THE APPLICABLE UTILITY PROVIDERS FOR THE INSTALLATION, MAINTENANCE AND REPLACEMENT OF ELECTRIC, GAS, TELEVISION, CABLE, AND TELECOMMUNICATIONS FACILITIES (DRY UTILITIES) UTILITY EASEMENTS SHALL ALSO BE GRANTED WITHIN ANY ACCESS EASEMENTS AND PRIVATE STREETS IN THE SUBDIVISION. PERMANENT STRUCTURES, IMPROVEMENTS, OBJECTS, BUILDINGS, WELLS, WATER METERS AND OTHER OBJECTS THAT MAY INTERFERE WITH THE UTILITY FACILITIES OR USE THEREOF (INTERFERING OBJECTS) SHALL NOT BE PERMITTED WITHIN SAID UTILITY EASEMENTS AND THE UTILITY PROVIDERS, AS GRANTEES, MAY REMOVE ANY INTERFERING OBJECTS AT NO COST TO SUCH GRANTEES, INCLUDING, WITHOUT LIMITATION, VEGETATION. PUBLIC SERVICE COMPANY OF COLORADO (PSCo) AND ITS SUCCESSORS RESERVE THE RIGHT TO REQUIRE ADDITIONAL EASEMENTS AND TO REQUIRE THE PROPERTY OWNER TO GRANT PSCo AN EASEMENT ON ITS STANDARD FORM.
10. THE EXISTING 30' WIDE ACCESS EASEMENT AND PUBLIC SIDEWALK EASEMENTS THAT WERE ORIGINALLY GRANTED PER THE PLAT OF COAL CREEK STATION FILING NO. 2 WERE VACATED BY ORDINANCE No. _____, THAT CERTAIN PORTION OF CANNON CIRCLE RIGHT OF WAY DEDICATED PER THE PLAT OF COAL CREEK STATION FILING NO. 1 WAS VACATED PER ORDINANCE No. _____.
11. THE CITY OF LOUISVILLE IS GRANTED A 4' WIDE MAINTENANCE ACCESS EASEMENT BEYOND RIGHT OF WAY FOR MAINTENANCE OF CURB AND WALK, MINIMUM SURFACE DISTURBANCE IS ALLOWED WITHIN THIS EASEMENT.
12. A 10' WIDE MAINTENANCE ACCESS EASEMENT ALLOWED ON EITHER SIDE OF EXCLUSIVE UTILITY EASEMENTS OR 5' ON EACH SIDE OF THE EXCLUSIVE UTILITY EASEMENTS.
13. PEDESTRIAN EASEMENTS AND ACCESS EASEMENTS ARE HEREBY GRANTED FOR BLOCKS 1, 4 & 5 OVER ALL PAVED SURFACES, SUCH AS PARKING LOTS AND SIDEWALKS.

MAINTENANCE NOTE

FOUR FOOT WIDTH (4') WILL BE ASSUMED OUTSIDE EDGE OF WALK TO BE USED FOR MAINTENANCE OF THE WALKS BY THE CITY OF LOUISVILLE.

FLOODPLAIN STATEMENT

THE SUBJECT PROPERTY LIES ENTIRELY WITHIN ZONE X (AREAS OF MINIMAL FLOOD HAZARD; AREAS DETERMINED TO BE OUTSIDE THE 0.2% PERCENT ANNUAL CHANCE FLOODPLAIN), AS SHOWN ON F.I.M. PANEL #08013 C 0502K, WITH AN EFFECTIVE DATE OF AUGUST 15, 2019.

BASIS OF BEARINGS

NORTH 89°58'20" WEST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, AS DEFINED AND MEASURED BETWEEN A FOUND 2" DIAMETER ILLEGIBLE BRASS CAP IN RANGE BOX AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER (NE 1/4) AND A FOUND 2-1/2" DIAMETER ILLEGIBLE ALUMINUM CAP IN RANGE BOX AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER (NE 1/4).

SURVEYOR'S CERTIFICATE

I, RICHARD BRUCE GABRIEL, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREIN WAS MADE UNDER MY DIRECT RESPONSIBILITY, SUPERVISION AND CHECKING; THE MONUMENTS SHOWN THEREON ACTUALLY EXIST; THE PLAT ACCURATELY REPRESENTS SAID SURVEY; AND THIS SUBDIVISION PLAT WAS MADE IN ACCORDANCE WITH C.R.S. 35-51-101.

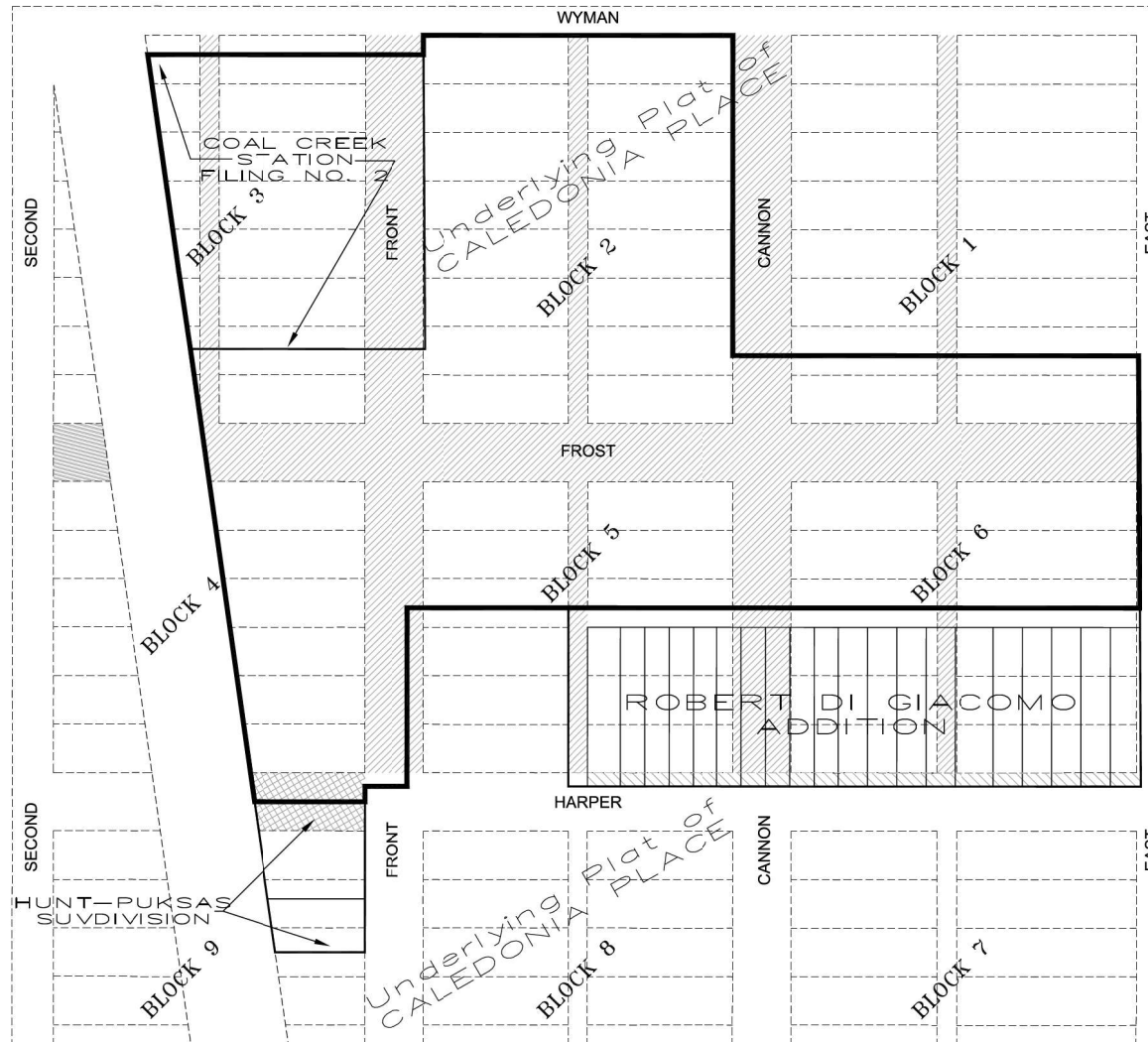
RICHARD BRUCE GABRIEL, P.L.S.
Colorado License No. 37929
for and on behalf of
Power Surveying Company, Inc.

COVER SHEET

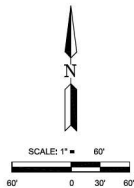
	TYPE OF SUBMITTAL:	PRELIMINARY PLAT
	PREPARATION DATE:	DECEMBER 22, 2022
	REVISION DATE:	FEBRUARY 5, 2024
	REVISION DATE:	
	REVISION DATE:	
	REVISION DATE:	
	REVISION DATE:	
DRAWN BY: MB		REVIEWED BY: FZ
JOB NO. 16-216		001-16-26 PP 2022-12-22.mxd
SHEET 1 OF 5		

COAL CREEK VILLAGE

PRELIMINARY PLAT
SHEET 2 OF 5



- 1901 VACATION OF CERTAIN STREETS AND ALLEYS IN CALEDONIA PLACE
- 14' WIDE VACATION OF A PORTION OF HARPER STREET PER ORDINANCE 352
- 80' WIDE VACATION OF A PORTION OF FROST STREET PER ORDINANCE 369
- 60' WIDE VACATION OF A PORTION OF HARPER STREET PER ORDINANCE 599



HISTORIC PLATING INFORMATION

POWER Surveying Company, Inc. Established 1948 881 BRIDGEMAN DRIVE, CO 80221 PH: 303-425-1417 FAX: 303-425-1488 www.powerinc.com	TYPE OF SUBMITTAL:	PRELIMINARY PLAT
	PREPARATION DATE:	DECEMBER 22, 2022
	REVISION DATE:	FEBRUARY 5, 2024
	REVISION DATE:	
	REVISION DATE:	
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	REVISION DATE:	
	DRAWN BY: MB	REVIEWED BY: FZ
	JOB NO. 16-216	001-16-26 PP 2022-12-22.dwg

SHEET 2 OF 5

SHEET 4 OF 5

"BASIS OF BEARINGS"
N89°58'20"W 2642.02'(M)

NORTH LINE OF THE NE 1/4 OF SEC. 8, T. 1S., R. 69W., 6th P.M.

POINT OF COMMENCEMENT:
FOUND 2" DIAM. ILLEGIBLE BRASS CAP IN
RANGE BOX, MARKED AS SHOWN (ACCEPTED)
AS NE COR SEC 8, T. 15, R. 69W

LEGEND OF SYMBOLS & ABBREVIATIONS

☐	MONUMENT FOUND, AS NOTED
☒	SET REBAR & 1-1/2" DIAMETER YELLOW PLASTIC CAP, PLS 37928, TYPICAL UNLESS NOTED OTHERWISE
(C)	CALCULATED
(M)	MEASURED
16	LOT NUMBER
(R)	RECORD
(3)	BLOCK NUMBER
(A)	OUTLOT IDENTIFIER

----- EXISTING RECORD EASEMENT LINE
 _____ NEW LOT LINE
 ----- NEW EASEMENT GRANTED BY THIS PLAT
 (DIMENSIONED IN [] BRACKETS)
 _____ ADJOINING PARCEL OR LOT LINE
 _____ CENTER LINE
 _____ PUBLIC LANDS SURVEY SECTION LINE
 _____ PLAT BOUNDARY LIMITS

NEW EASEMENT INFORMATION

TYPE OF SUBMITTAL:	PRELIMINARY PLAT
PREPARATION DATE:	DECEMBER 22, 2022
REVISION DATE:	FEBRUARY 5, 2024
REVISION DATE:	
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REVISION DATE:	
DRAWN BY: MB	REVIEWED BY: FZ
JOB NO. 16-216	501-16-26 PP 2022-12-22.dwg

SHEET 4 OF 5



POWER
Surveying Company, Inc.
Established 1946

8911 BROADWAY
DENVER, CO 80231

PH: 303-753-9811
FAX: 303-753-4888
www.powerurveying.com

6911 BROADWAY
DENVER, CO 80221

COAL CREEK VILLAGE

PRELIMINARY PLAT

SHEET 5 OF 5

LINE TABLE

LINE	BEARING	LENGTH
L1	S16°33'03"E	6.11'
L2	N00°01'40"E	15.33'
L3	N02°50'04"W	35.18'
L4	S81°25'48"W	15.91'
L5	S90°00'00"W	29.43'
L6	N90°00'00"E	19.74'
L7	N00°00'00"E	9.12'
L8	S78°00'00"E	15.73'
L9	N90°00'00"E	25.50'
L10	S90°00'00"E	25.50'
L11	N00°00'00"E	43.21'
L12	S00°00'21"W	10.00'
L13	N89°54'11"W	17.91'
L14	N00°00'21"E	37.38'
L15	N90°00'00"W	44.00'
L16	S45°11'56"E	34.69'
L17	S41°37'52"W	20.03'
L18	N45°11'56"W	27.55'
L19	N90°00'00"E	42.00'
L20	S17°41'27"E	35.89'
L21	S08°57'00"W	31.60'
L22	N08°36'50"E	26.58'
L23	N82°00'04"W	5.07'
L24	N17°41'27"W	58.20'
L25	N90°00'00"W	37.29'
L26	S00°00'00"W	43.19'
L27	S89°58'20"E	29.34'

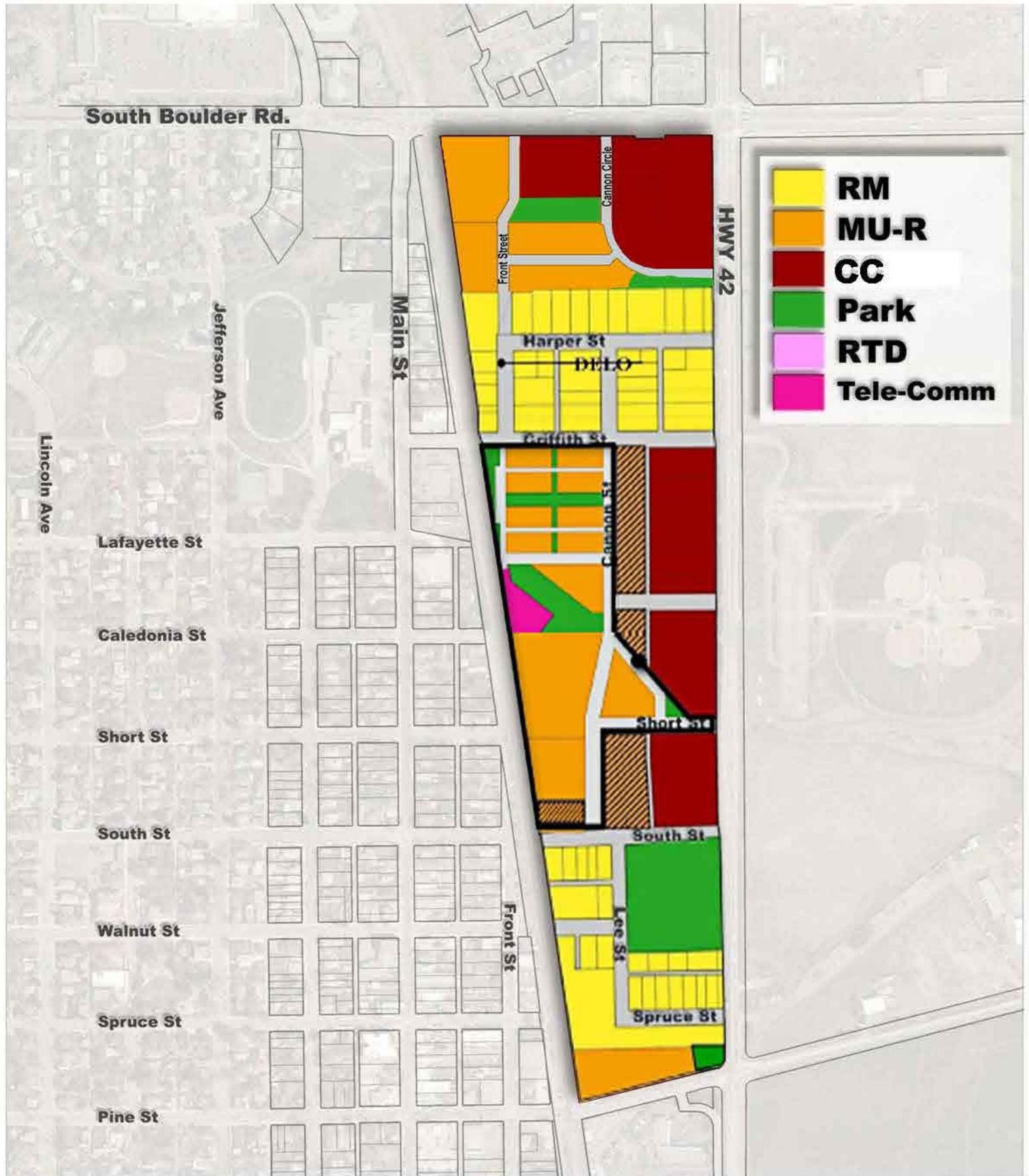
CURVE TABLE

CURVE	RADIUS	DELTA	LENGTH	CHORD BRC	CHORD LENGTH
C1	15.00'	89°58'20"	23.55'	N44°59'10"W	21.21'
C2	250.58'	17°30'27"	78.57'	N08°45'14"E	76.27'
C3	269.82'	17°46'28"	83.86'	S08°36'13"W	83.52'
C4	269.82'	97°122"	44.30'	S12°46'16"W	44.25'
C5	269.82'	142°39"	8.06'	S07°14'46"W	8.06'
C6	269.82'	511°42"	28.82'	S03°32'35"W	28.81'
C7	269.82'	079°46"	4.69'	S00°11'52"W	4.69'
C8	240.00'	185°100"	68.07'	S08°23'32"E	87.84'
C9	240.00'	446°05"	19.97'	S02°41'04"E	19.97'
C10	240.00'	6°2'37"	26.01'	S08°10'29"E	26.00'
C11	240.00'	9°8'20"	22.08'	S13°54'53"E	22.08'
C12	110.00'	153°3'38"	59.87'	N08°46'14"W	59.78'
C13	110.00'	113°27"	2.99'	N15°46'19"W	2.99'
C14	110.00'	8°7'38"	15.92'	N10°50'47"W	15.91'
C15	110.00'	512°34"	10.86'	N03°50'41"W	10.86'
C16	183.00'	153°3'21"	49.68'	S08°04'41"E	49.53'
C17	212.82'	17°48'28"	66.15'	S08°36'13"W	65.88'
C18	212.82'	071°52'	1.97'	S00°02'05"E	1.97'
C19	212.82'	115°01'5"	43.87'	S08°08'59"W	43.89'
C20	212.82'	576°21"	20.20'	S14°47'17"W	20.30'
C21	307.58'	17°30'27"	83.99'	N08°45'14"E	83.62'
C22	307.58'	2°0'09"	11.65'	N16°25'22"E	11.64'
C23	307.58'	5°9'58"	28.63'	N12°40'18"E	28.62'
C24	307.58'	100°19"	53.71'	N05°00'09"E	53.64'
C25	15.00'	90°01'40"	23.57'	S45°00'50"W	21.22'
C26	15.00'	89°40'30"	23.48'	N45°08'05"W	21.15'
C27	15.00'	89°40'30"	23.48'	N45°08'05"W	21.15'
C28	15.00'	90°19'30"	23.65'	N44°51'55"E	21.27'
C29	25.00'	334°7'40"	14.75'	N16°53'50"W	14.53'
C30	8.00'	90°01'40"	12.57'	N45°00'50"E	11.37'
C31	8.00'	89°40'19"	12.52'	S45°08'11"E	11.28'
C32	5.00'	90°01'40"	7.86'	N45°00'50"E	7.07'
C33	15.00'	77°9'22"	1.98'	S03°53'30"E	1.98'
C34	5.00'	90°19'41"	7.86'	N44°51'49"E	7.09'
C35	15.00'	58°16'42"	15.26'	S30°41'11"E	14.61'
C36	25.00'	380°3'16"	16.60'	S19°01'38"W	16.30'
C37	198.50'	153°7'14"	54.12'	S07°46'37"W	53.95'
C38	198.50'	372°05"	12.25'	S01°46'02"W	12.24'
C39	198.50'	115°3'18"	41.19'	S05°28'44"W	41.11'
C40	198.50'	071°52"	0.68'	S15°31'18"W	0.68'
C41	9.00'	90°19'30"	14.19'	N44°51'55"E	12.76'

LINE AND CURVE TABLES

 881 S BRIDGEMAN DENVER, CO 80201 <i>Established 1948</i> P.O. BOX 10117 FAX: 303.735.1168 www.powerinc.com	TYPE OF SUBMITTAL:	PRELIMINARY PLAT
	PREPARATION DATE:	DECEMBER 22, 2022
	REVISION DATE:	FEBRUARY 5, 2024
	REVISION DATE:	
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	DRAWN BY: MB	REVIEWED BY: FZ
JOB NO. 16-216		001-16-26 PP 2022-12-22.dwg
SHEET 5 OF 5		

Land Use Plan Exhibit A



Martin Roth
Executive Vice President

Capital Markets, Land Service
Licensed Real Estate Broker



1225 17th Street, Suite 3200, Denver
CO 80202
Tel +1 303 628 1700
Fax +1 303 628 1751
Martin.Roth@cbre.com
www.cbre.com

August 11, 2025

Re: Coal Creek Village

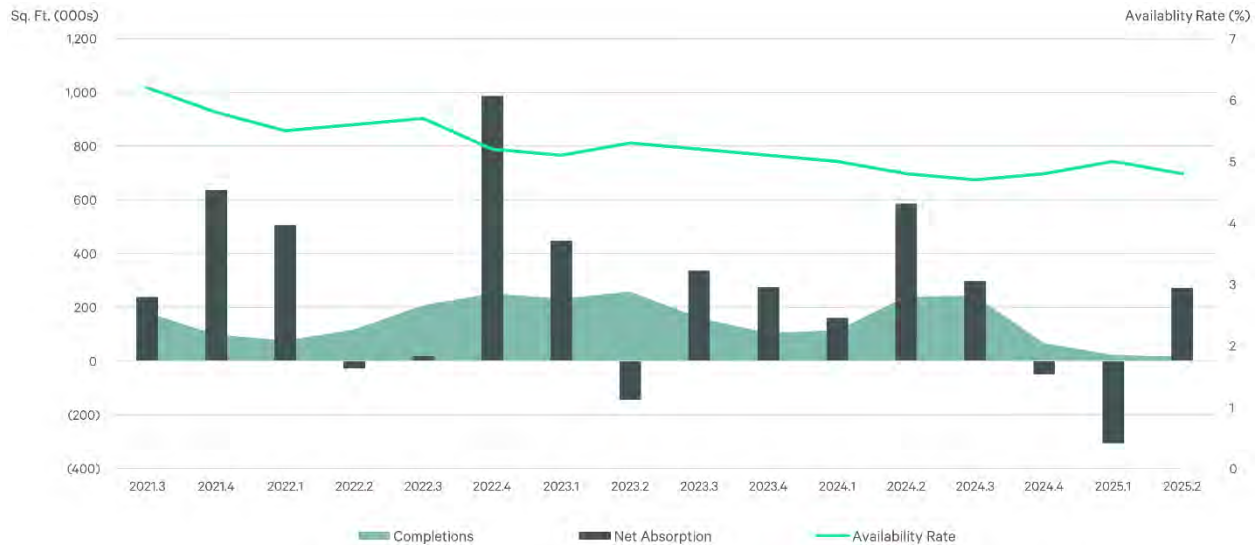
Dear City of Louisville Planning Department,

The Metro Denver commercial real estate market is showing conditions that call for a highly selective approach to new development. Current fundamentals in both retail and office suggest that speculative projects face significant headwinds.

Retail

In retail, the story has been one of stability rather than growth. As of the second quarter of 2025, availability in the Denver market sits at 4.8%, essentially unchanged from a year ago. Net absorption did rebound this quarter, but at 272,000 square feet it remains well off the pace we saw in 2024. New deliveries have been modest—just 348,000 square feet in the past year—and the bulk of leasing interest is coming from smaller pad users like gas/convenience, quick service restaurants, and a handful of financial institutions. Larger-format retail users are scarce, and while average asking rents have reached \$21.65 per square foot, the highest level in five years, much of that growth is a function of limited quality space in prime corridors rather than robust tenant expansion. Many communities are recognizing this reality and are choosing to bolster their existing retail cores with nearby residential density instead of risking oversaturation.

Per the statistical data below, retail completions* have been modest for several years, with most quarters since 2021 delivering fewer than 250,000 square feet. Despite this limited new supply, availability has eased only slightly—from 5.2% in late 2022 to 4.8% today—showing that demand has not been strong enough to materially tighten the market. Net absorption has been inconsistent over the past several years, with positive quarters often followed by periods of giveback. Tenant growth has not been consistent enough to establish a clear upward trend.



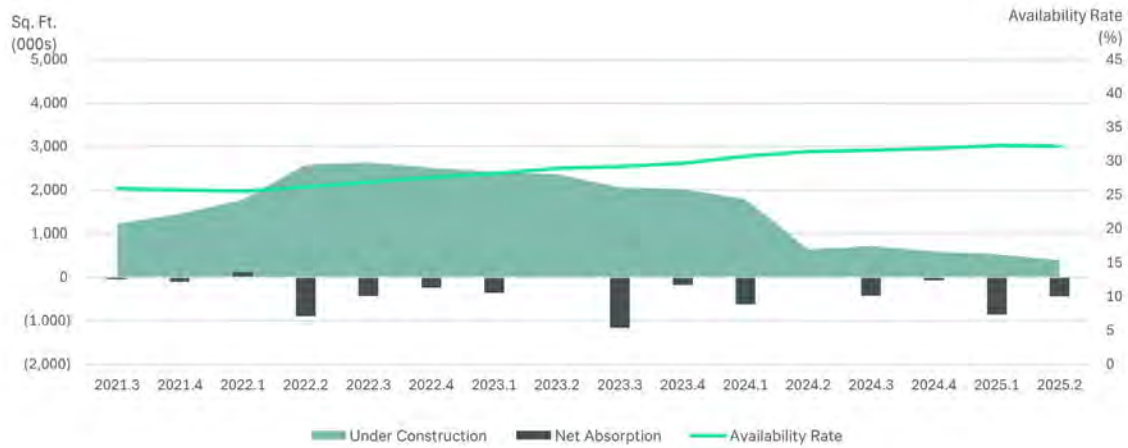
Source: CBRE Economic Advisors & CBRE Research, Q2 2025

*CBRE no longer reports construction data for retail properties, replacing it with completions data.

Office

The headwinds are even stronger in office. Vacancy has inched up to 27.4%, and although absorption has improved compared to earlier this year, the market remains in negative territory. Leasing activity has slowed materially, under-construction volume has dropped to just under 400,000 square feet, and rents, averaging \$33.86 full-service gross, often fall short of the levels needed to underwrite new projects. Companies are still adjusting to hybrid and remote work, which is keeping a lid on expansion plans and contributing to elevated sublease space. At the same time, we are seeing conversions and demolitions begin to outpace new office construction—a sign that the market is working through existing oversupply before it can support meaningful new development.

Per the statistical data below, the office sector's long-term trajectory underscores these challenges. The pipeline of space under construction has fallen sharply—from a recent peak of 2.6 million square feet in Q3 2022 to just 394,000 square feet today. Net absorption has been negative in 13 of the past 16 quarters, and availability has climbed from 26% in late 2021 to 32% currently. These figures highlight a market still digesting excess inventory, with more space being removed through repurposing than added through new construction.



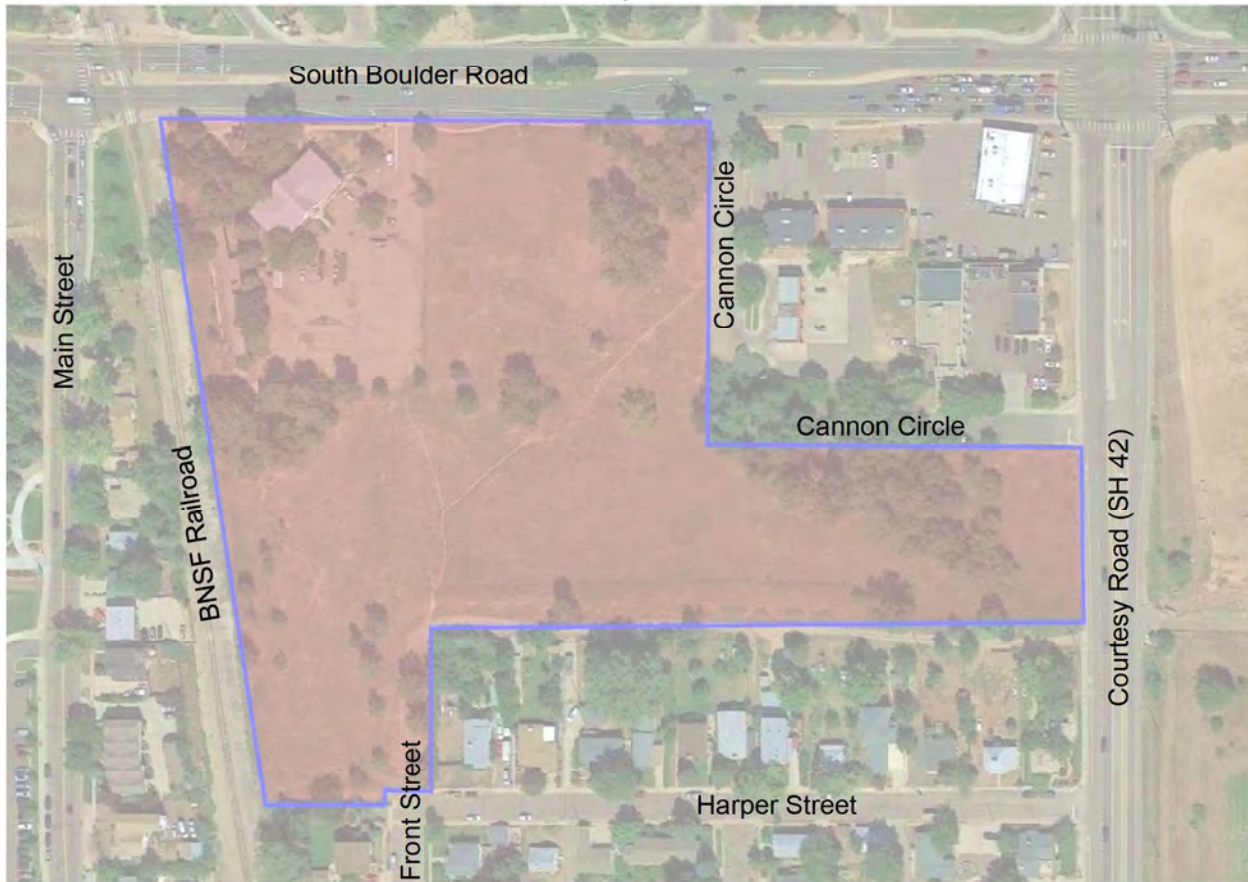
Source: CBRE Research, Q2 2025

Please feel free to call me with any questions.

Sincerely,

Martin Roth
CBRE, Inc.

**Transportation Impact Study
Coal Creek Village
Louisville, Colorado**



January 14, 2021
Revised: June 9, 2025
Revised: July 18, 2025

PREPARED FOR:
Markel Homes
5723 Arapahoe Avenue, Ste 2B
Boulder, CO 80303
(303) 339-6116
Contact: Jason Markel

PREPARED BY:
McDowell Engineering, LLC
PO Box 4259
Eagle, CO 81631
970.623.0788
Contact: Kari J. McDowell Schroeder, PE, PTOE
Project Number: M1475 & M1663

CITY OF LOUISVILLE APPROVAL

BY: 

DATE: 08/14/2025

DOCUMENT APPROVAL EXPIRES
ONE YEAR FROM APPROAL DATE

THIS DOCUMENT WAS REVIEWED FOR
CONFORMANCE WITH THE CITY OF
LOUISVILLE DESIGN AND CONSTRUCTION
STANDARDS. CITY APPROVAL DOES NOT
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Statement of Engineering Qualifications

Kari J. McDowell Schroeder, PE, PTOE is a Transportation and Traffic Engineer for McDowell Engineering, LLC. Ms. McDowell Schroeder has over twenty-eight years of extensive traffic and transportation engineering experience. She has completed numerous transportation studies and roadway design projects throughout Colorado. Ms. McDowell Schroeder is a licensed Professional Engineer in the State of Colorado and has her certification as a Professional Traffic Operations Engineer from the Institute of Transportation Engineers.

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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 four access locations. Three of the four accesses exist, and the fourth access will need to be constructed. Two accesses will have direct connectivity to South Boulder Road, one access will have direct connectivity to State Highway 42, and the fourth access will have direct connectivity to Front Street. The four accesses are listed below. Refer to the site plan in **Figure 2**.

1. Front Street and South Boulder Road
2. Cannon Circle and South Boulder Road
3. Cannon Circle and State Highway 42
4. Front Street and Harper Street (with and without the Front Street connection)

This study analyzes the transportation impacts with and without the Front Street connection.

Intersection Analysis: Year 2026 and Year 2045 background and total traffic conditions were modeled and analyzed. Total traffic conditions were analyzed with and without

the Front Street connection from South Boulder Road to Griffith Street. Additionally, 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.

Front Street Connection: This TIS includes analysis of scenarios with and without the Front Street connection. Due to the sites' direct access to S. Boulder Road with heavy through volumes, the site accesses will have restricted turning movements. Without the Front Street connection, more vehicles access South Boulder Road from the Cannon Circle access creating additional weave and U-turn movements that present safety concerns. Both the City staff and the TIS recommendations are to include the Front Street connection.

The Front Street connection provides numerous benefits to the Louisville community. The Front Street connection will allow for transportation redundancy as part of a gridded street network. Gridded networks have more capacity and increase circulation with narrower roadways that are safer for pedestrians and other multimodal traffic. It also aligns with the City's previous planning efforts.

Without the Front Street connection, there is anticipated to be an additional 25% of the exiting site distribution that would use the eastbound U-turn, which amounts to between 8 to 18vph. This equates to an anticipated increase of between 40% and 85% for the eastbound U-turn movements on South Boulder Road in the long-term traffic scenarios. This includes a difficult weave movement across two or three lanes of traffic in the 400 feet between the northern site accesses to the eastbound left turn lane at the signalized intersection.

Under both scenarios, Front Street is anticipated to stay within Front Street's local residential street capacity.

With the Front Street connection, it is recommended that traffic calming measures are constructed to attenuate operations on Front Street. Several measures that may be considered are described in the City of Louisville's *Transportation Master Plan*. This document's Neighborhood Traffic Management Program (NTMP) focuses on neighborhood-level traffic calming and safety improvements. These improvements help maintain the City's family-friendly small-town character. Examples of tools utilized within an NTMP include, but are not limited to the following.

- Enhanced or raised pedestrian crossings
- Medians and/or entry islands
- Curb extensions

- Speed humps or cushions
- Speed monitoring and enforcement campaigns
- Education campaigns

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. Alternately, 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. Alternately, 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.

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: With the construction of Coal Creek Village, this intersection will be restricted to a $\frac{3}{4}$ movement by extending the existing center median in SH 42. 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 Front Street Intersection: 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 additional turn lanes are required.

It is recommended that with the Front Street connection, additional traffic calming features are incorporated such as curb extensions/bulbouts and raised pedestrian crossings, enhanced signage and striping per further discussion with City Staff. The applicant has prepared a separate, schematic traffic control plan to be included in the application.

Additionally, with the Front Street connection, this intersection should have 'Do Not Block Intersection' signage and striping added that will assist with traffic accessing Front Street. 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 intersection of Griffith Street and Front Street has 'Do Not Block Intersection' signage and striping added that will assist with traffic accessing 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 with the Front Street Connection: This is currently a free-flowing intersection. There is an unimproved alley access as a third, north leg. With the buildout of Coal Creek Village and a connection of Front Street from South Boulder Road to Griffith Street, it is recommended that Front Street is designed as the through street and Harper Street is stop-controlled

with a stop sign and stop bar on this east leg. The north leg of this intersection is recommended to have a painted pedestrian crosswalk.

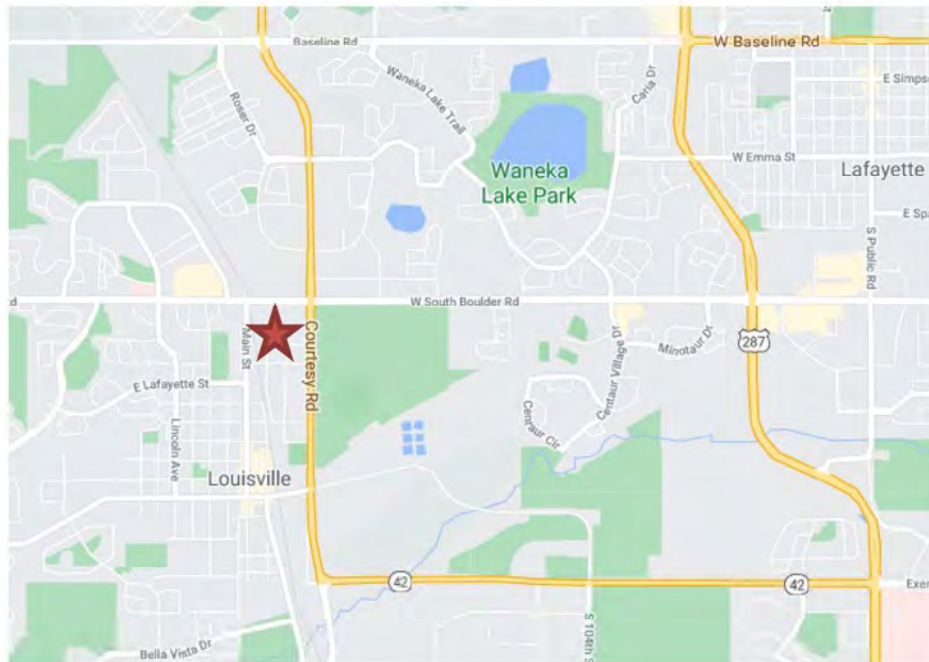
Intersection #11 – SH 42 and Harper Street intersection: The existing volume of eastbound right turns from Harper Street onto SH 42 exceeds the *Access Code's* requirement to construct an acceleration lane for this movement. With the implementation of the *Future 42 Plan*, this volume is anticipated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

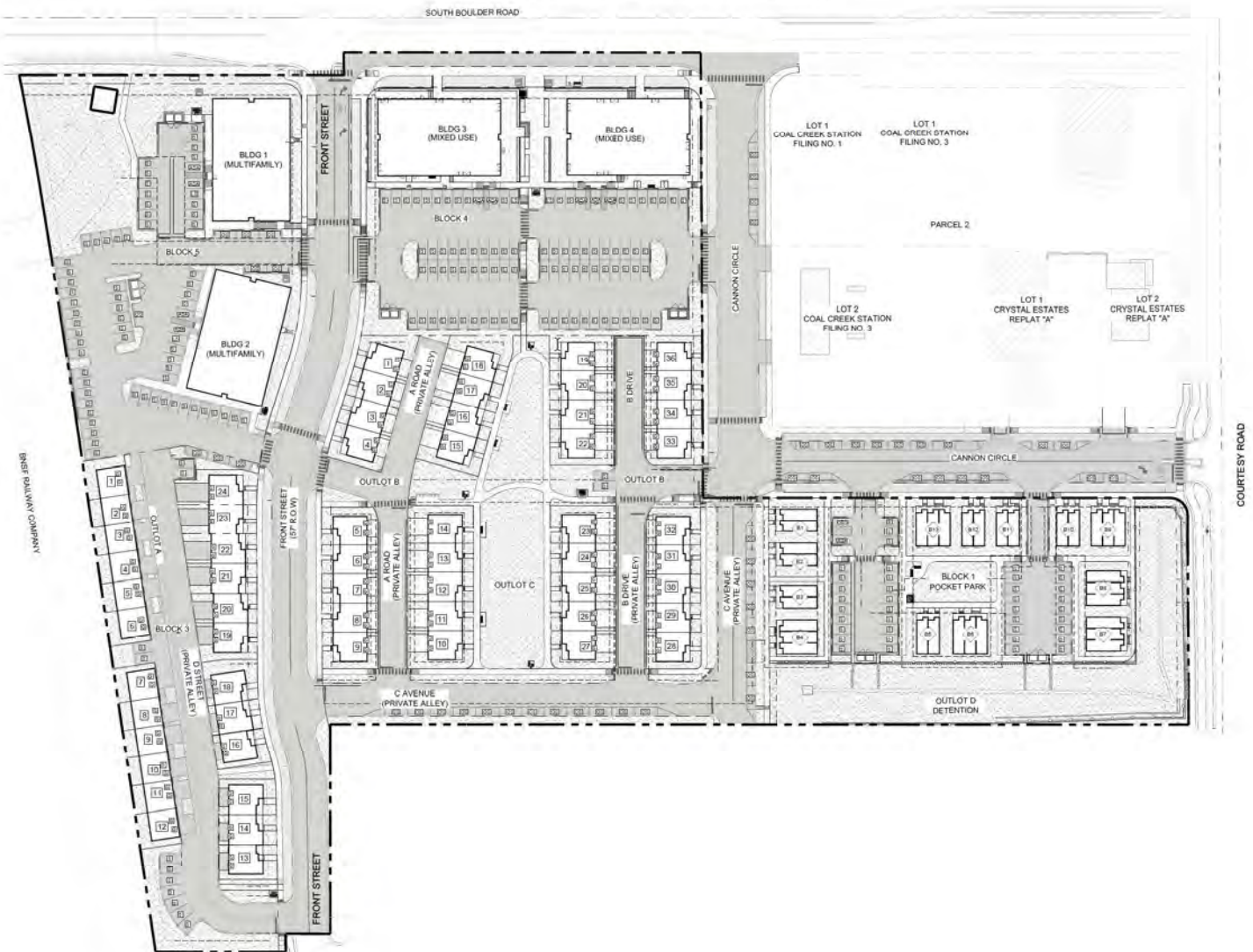


The development proposes the following land uses.

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

Recent South Boulder Road Access Restrictions: 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.

(Courtesy Road) Future 42 Corridor Plan: 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 2**.

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

The new Coal Creek Village is proposing four access locations. Three of the four accesses exist, and the fourth access will need to be constructed. Two accesses will have direct connectivity to South Boulder Road, one access will have direct connectivity to State Highway 42, and the fourth access will have direct connectivity to Front Street. The four accesses are listed below. Refer to the site plan in **Figure 2**.

5. Front Street and South Boulder Road
6. Cannon Circle and South Boulder Road
7. Cannon Circle and State Highway 42
8. Front Street and Harper Street

This study analyzes the transportation impacts with and without the Front Street connection. Refer to **Section 3.2** of the report for more information on the two alternatives modeling the anticipated transportation network impacts with and without the Front Street connection.

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 (Proposed Site Access – Modeled with and without this connection.)
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 45 mph 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 35 mph 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.

Within the development, Front Street will be a dedicated public street replacing the south driveway and connecting to the existing street to the south.

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 areas.

¹ Colorado Department of Transportation, Online Transportation Information System.

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 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 2**. These assumptions were reviewed with City staff.

Table 2: Intersection Access Control

#	Intersection	Year 2024 Existing	Year 2025 Background	Year 2045 Background	Year 2025 Total - With Front Street Connection	Year 2045 Total - With Front Street Connection	Year 2025 Total - Without Front Street Connection	Year 2045 Total - Without Front Street Connection
1	Main Street & South Boulder Road	Signal	Signal	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	3/4 Movement	3/4 Movement
3	Cannon Circle & South Boulder Road	Full Movement	Full Movement	Full Movement	3/4 Movement	3/4 Movement	3/4 Movement	3/4 Movement
4	Courtesy Road & South Boulder Road	Signal - Exist	Signal - Exist	Signal - Future 42 Conditions	Signal - Exist	Signal - Future 42 Conditions	Signal - Exist	Signal - Future 42 Conditions
5	Cannon Circle & SH 42 (Courtesy Road)	Full Movement	Full Movement	RIRO ³	3/4 Movement	RIRO ³	3/4 Movement	RIRO ³
6	Griffith Street & SH 42 (Courtesy Road)	Full Movement	Full Movement	Signal	Full Movement	Signal	Full Movement	Signal
7	Griffith Street & Cannon Street	Full Movement	Full Movement	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	Full Movement	Full Movement
9	Griffith Street & Main Street	Full Movement	Full Movement	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 ²	Full Movement ²	Full Movement ¹	Full Movement ¹
11	Harper Street & SH 42 (Courtesy Road)	Full Movement	Full Movement	RIRO ³	Full Movement	RIRO ³	Full Movement	RIRO ³

Scenario	A	A	B	C	D	E	F
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Notes: ¹Not Stop Controlled (Free Flowing)

²Westbound Stop Controlled

³RIRO = Right-In-Right-Out

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 $\frac{3}{4}$ movement intersection at site development
 - City restricts to RIRO movements in the future with signalization of Intersection #6
- Intersection #6 - SH 42 and Griffith Street
 - City constructs a traffic signal in the future
- Intersection #10 – Front Street and Harper Street
 - With Front Street Connection: Developer constructs a north leg and installs a stop sign for westbound Harper Street
 - Without Front Street Connection: No change from existing conditions
- Intersection #11 – SH 42 and Harper Street
 - City restricts to RIRO movements in the future with signalization of SH 42 and Griffith Street

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*¹⁷ 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, this intersection will be restricted to a $\frac{3}{4}$ movement, with left turns out of the site restricted. Therefore, all total traffic scenarios are modeled with the northbound left turn lane restricted.

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 currently 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 $\frac{3}{4}$ 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. 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.

Intersection #6 - SH 42 and Griffith Street intersection: This is currently 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 currently a free-flowing intersection. There is unimproved alley access as a third, north leg. All background scenarios assume no change in the current configuration.

This intersection is modeled with two scenarios.

In the Year 2026 and Year 2045 total traffic scenarios with the Front Street connection, it is recommended that Front Street becomes the through street, resulting in the installation of westbound stop-control. This connection aligns with the City of Louisville’s previous *The Highway 42 Revitalization Area Framework Plan*¹⁴ and *42 Gateway Alternative Analysis Report*¹⁵ plans to connect South Boulder Road and Griffith Street via Front Street. Excerpts from these reports are included in the **Appendix**.

Intersection #11 - SH 42 and Harper Street intersection: This is currently 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, future construction of a traffic signal at SH 42 and Griffith Street, and scenarios with and without Front Street connection from South Boulder Road to 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

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

lengths (120 seconds) at the intersection of SH 42 and South Boulder Road can 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 119⁴
- 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 119⁵
- 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**.

Intersection #3 - South Boulder Road and Cannon Circle intersection: With the development of Coal Creek Village, this intersection will be restricted to a $\frac{3}{4}$ 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**.

Intersection #4 - South Boulder Road and SH 42 intersection: 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 $\frac{3}{4}$ 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.

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 #10 – Front Street and Harper Street intersection: This is currently 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.

This intersection is modeled with two scenarios.

In the Year 2026 and Year 2045 total traffic scenarios with the Front Street connection, it is recommended that Front Street becomes the through street, resulting in the installation of westbound stop-control. Additional traffic are anticipated to utilize the Front Street connection. Details of this shift can be found in the **Appendix**.

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

Table 3: Background Traffic Figures Summary

Scenario (from Table 2)	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 2045 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	Figure 16: Project Generated Traffic Assignment – Scenario D (Residential & Retail)	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

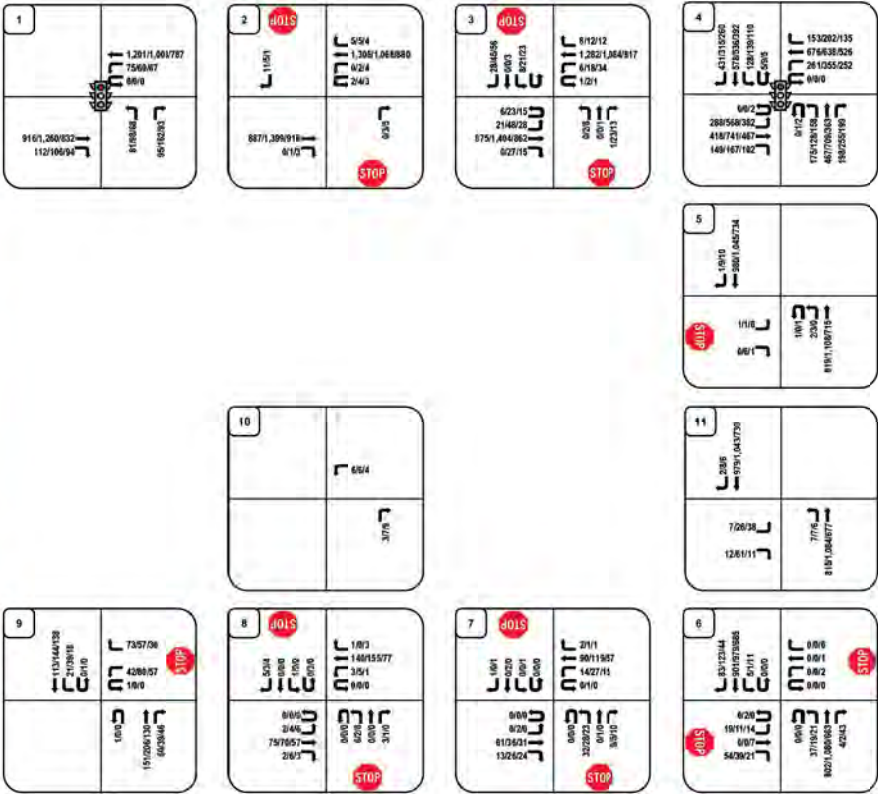
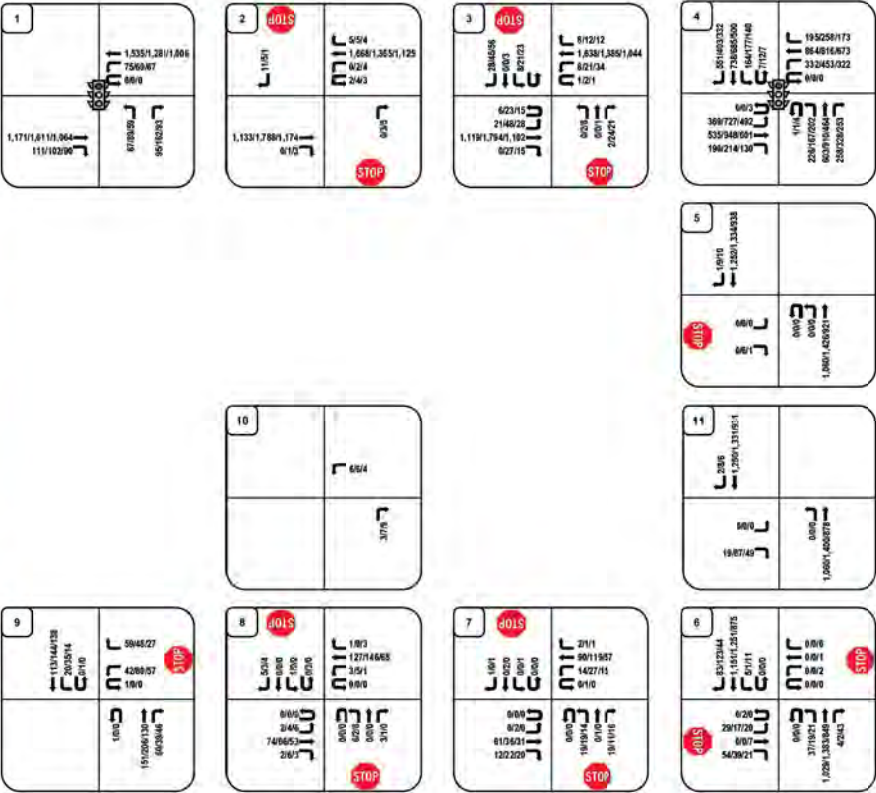


Figure 6: Year 2045 Background Traffic



Coal Creek Station
Louisville, CO

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



Project Number M1663
Prepared By GWS
4/23/2025

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 4: 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 5 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 5: 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)
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 5**, 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 currently 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 6: 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 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 7**. The additional 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 7: Project Trip Generation

ITE Trip Generation Equation ³								Average Weekday	Morning Peak Hour		Evening Peak Hour		Saturday Peak Hour							
ITE Code	Units ²		Eg. Coef	Avg. Weekday	AM Peak Hour	PM Peak Hour	Sat. Peak Hour	Trips (vpd)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	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	A 0.35	A 0.42	Rate 0.41	1,280	24%	23	76%	71	62%	71	38%	43	51%	39	49%	38
Multi-Modal Reduction				75.31	28.13	34.78		-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	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				229.68				-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 Station ⁷								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 used.

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 Trip 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 four 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.

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 Front Street Connection Analysis Scenarios

This study analyzes the transportation impacts with and without the Front Street connection. Refer to **Section 3.2** of the report for more information on the two alternatives modeling the anticipated transportation network impacts with and without the Front Street connection.

With the Front Street Connection: In the Year 2026 and Year 2045 total traffic scenarios with the Front Street connection, it is recommended that Front Street becomes the through street, resulting in the installation of westbound stop-control. This connection aligns with the City of Louisville's previous *The Highway 42 Revitalization Area Framework Plan*¹⁴ and *42 Gateway Alternative Analysis Report*¹⁵ plans to connect South Boulder Road and Griffith Street via Front Street. Excerpts from these reports are included in the **Appendix**.

Additionally, per Louisville's *Transportation Master Plan*, "Louisville's transportation network is focused on a few major corridors, for which there aren't many readily available substitutes. This means it may be difficult to shift travel to lesser-traveled routes that would help handle additional future capacity."

Front Street is an example of an alternative roadway connector that can provide the traditional gridded street network that is more efficient and has more capacity for the area. This also allows for narrower street sections that benefit pedestrian and multimodal travel. The Front Street connection provides redundancy for Louisville's transportation network in the event of an emergencies, such as fire and other emergency response providers.

As traffic volumes on South Boulder Road and SH 42 are significant and anticipated to increase over time, the City of Louisville is implementing access control restrictions on side streets. As access restrictions are being imposed for Coal Creek Village's two accesses onto South Boulder Road and access onto SH 42, some site traffic is anticipated to utilize Front Street to access their destinations. Details are of the site traffic's anticipated directional distribution and background traffic's travel route adjustments are documented in the **Appendix**.

Without the Front Street Connection: In the Year 2026 and Year 2045 total traffic scenarios without the Front Street connection, no changes from the current conditions are considered. Thus, no additional traffic volume is anticipated on Front Street.

Combined with the South Boulder Road and SH 42 access restrictions, Coal Creek Village's residents and patrons that wish to make westbound movements on South Boulder Road and northbound movements on SH 42 will be required to make weave movements across South Boulder Road to access the eastbound left turn lane at the SH 42 traffic signal to make U-turns or left turns onto SH 42 for an alternate travel route.

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, future construction of a traffic signal at SH 42 and Griffith Street, and scenarios with and without Front Street connection from South Boulder

Road to 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 Site-Generated Traffic

When the anticipated project trip generation (**Table 7**) 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 following trip generation and directional distribution as shown below in **Table 8**.

For instance, for Scenario C (Year 2025 Total Traffic with a Front Street connection), the anticipated vehicular traffic assignment (**Figure 13**) is the result of applying the anticipated trip generation (**Table 7**) to the residential distribution (**Figure 11**) and the retail distribution (**Figure 12**).

5.7 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. Both the short-term and long-term projections include scenarios with and without the Front Street connection.

Figure 7: Year 2026 Total – With Front Street Connection Schematic Diagram



Figure 8: Year 2045 Total – With Front Street Connection Schematic Diagram



Figure 9: Year 2026 Total – Without Front Street Connection Schematic Diagram

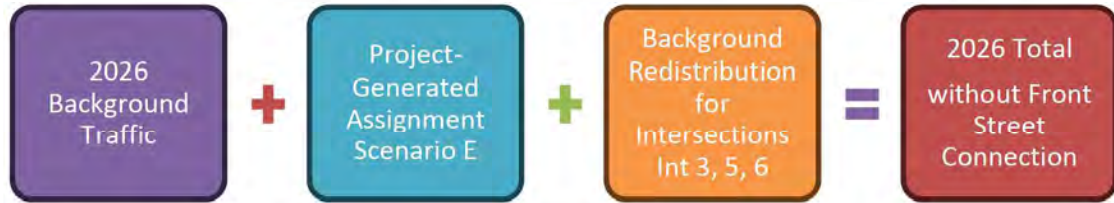


Figure 10: Year 2045 Total – Without Front Street Connection Schematic Diagram

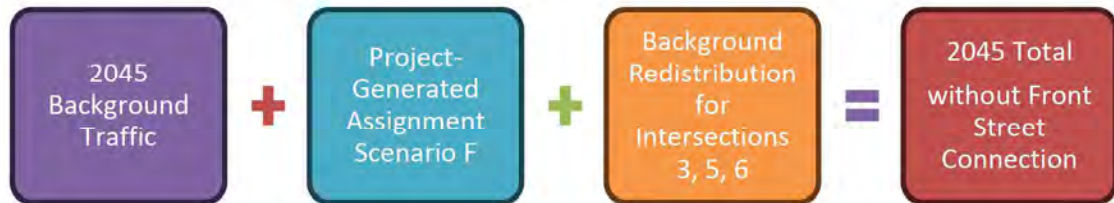


Table 8 summarizes the background traffic intersection scenarios and the corresponding figures used to calculate them.

Table 8: Total Traffic Figures Summary

Scenario (from Table 2)	Distribution Figures	Assignment Figures	Travel Route Adjustments Figures	Total Traffic Figures
Scenario C: Year 2026 Total Traffic with Front Street Connection	Figure 11: Project Generated Traffic Distribution – Scenario C (Residential) Figure 12: Project Generated Traffic Distribution – Scenario C (Retail)	Figure 13: Project Generated Traffic Assignment – Scenario C (Residential & Retail)	Appendix Figure AP05: Background Adjust for Total (Int #3 Redistribution) Appendix Figure AP06: Front Street Diverted Traffic (Year 2026)	Figure 7: Year 2026 Total – With Front Street Connection Schematic Diagram
Scenario D: Year 2045 Total Traffic with Front Street Connection	Figure 14: Project Generated Traffic Distribution – Scenario D (Residential) Figure 15: Project Generated Traffic Distribution – Scenario D (Retail)	Figure 16: Project Generated Traffic Assignment – Scenario D (Residential & Retail)	Appendix Figure AP05: Background Adjust for Total (Int #3 Redistribution) Appendix Figure AP07: Front Street Diverted Traffic (Year 2045)	Figure 8: Year 2045 Total – With Front Street Connection <u>Schematic</u> Diagram
Scenario E: Year 2026 Total Traffic without Front Street Connection	Figure 17: Project Generated Traffic Distribution – Scenario E (Residential) Figure 18: Project Generated Traffic Distribution – Scenario E (Retail)	Figure 19: Project Generated Traffic Assignment – Scenario E (Residential & Retail)	Appendix Figure AP05: Background Adjust for Total (Int #3 Redistribution)	Figure 9: Year 2026 Total – Without Front Street Connection Schematic Diagram
Scenario F: Year 2045 Total Traffic without Front Street Connection	Figure 20: Project Generated Traffic Distribution – Scenario F (Residential) Figure 21: Project Generated Traffic Distribution – Scenario F (Retail)	Figure 22: Project Generated Traffic Assignment – Scenario F (Residential & Retail)	Appendix Figure AP05: Background Adjust for Total (Int #3 Redistribution)	Figure 10: Year 2045 Total – Without Front Street Connection Schematic Diagram

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

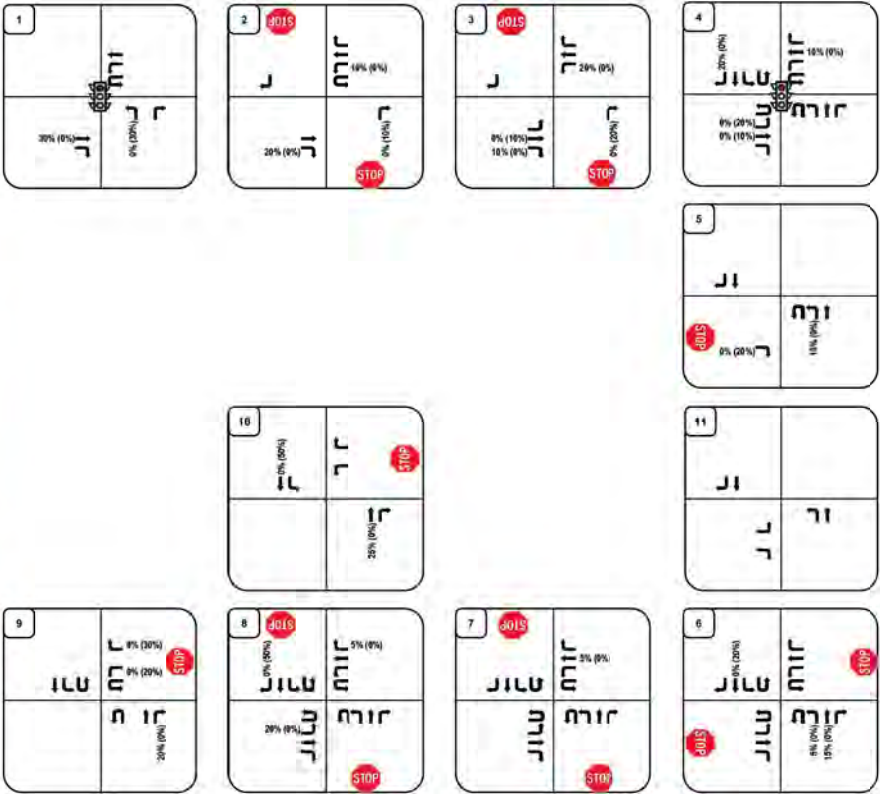


Figure 12: Project Generated Traffic Distribution - Scenario C (Retail)

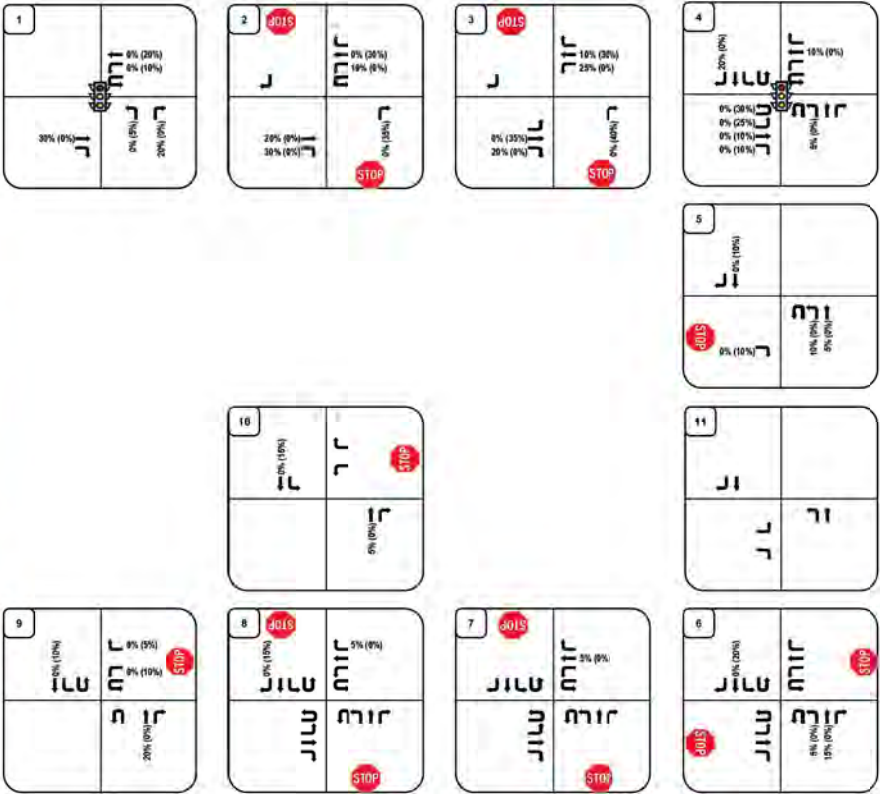


Figure 13: Project Generated Traffic Assignment - Scenario C (Residential & Retail)

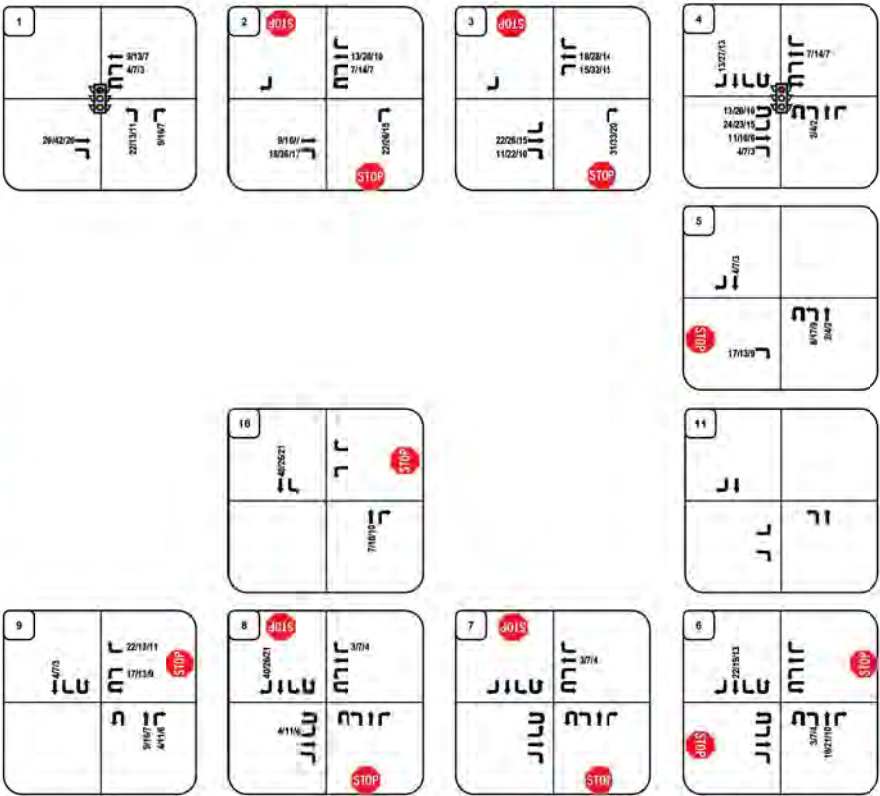


Figure 14: Project Generated Traffic Distribution - Scenario D (Residential)

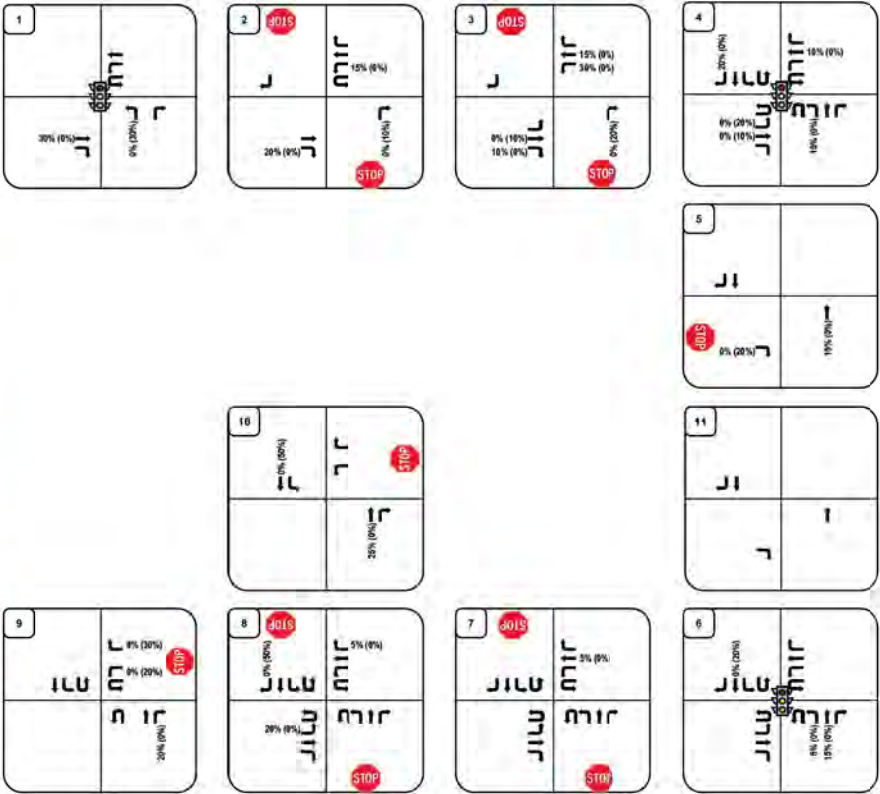


Figure 15: Project Generated Traffic Distribution - Scenario D (Retail)

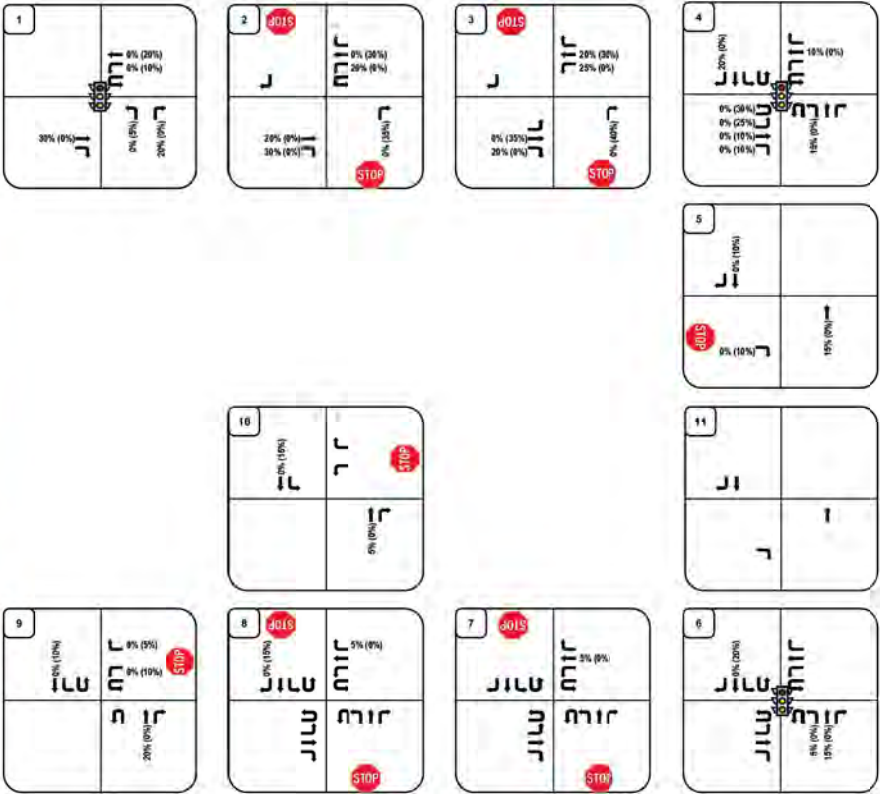


Figure 16: Project Generated Traffic Assignment - Scenario D (Residential & Retail)

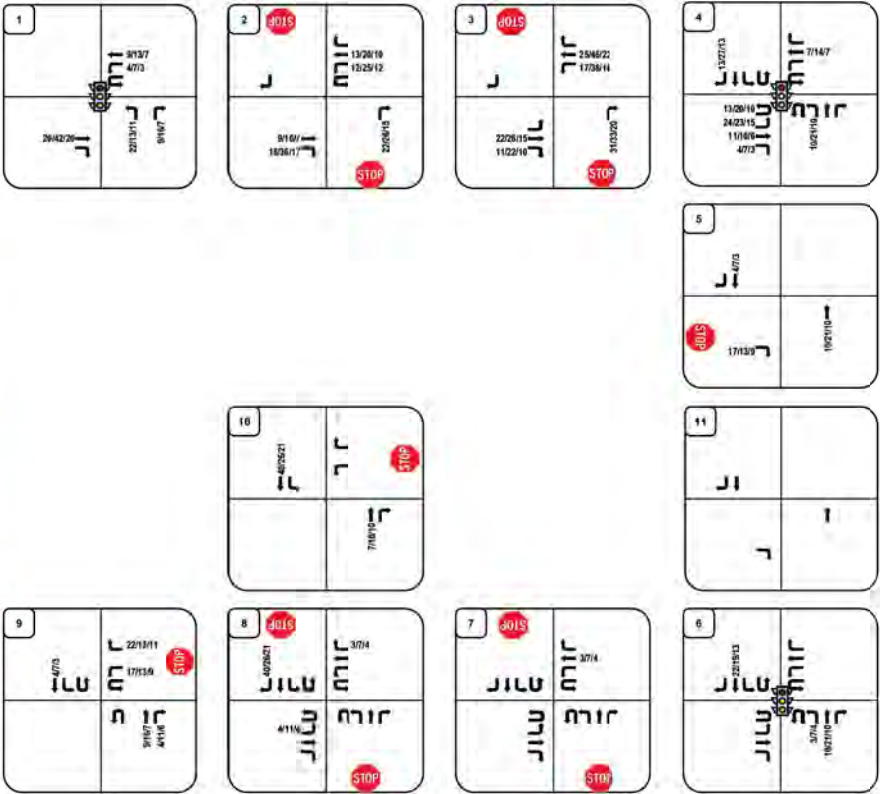


Figure 17: Project Generated Traffic Distribution - Scenario E (Residential)

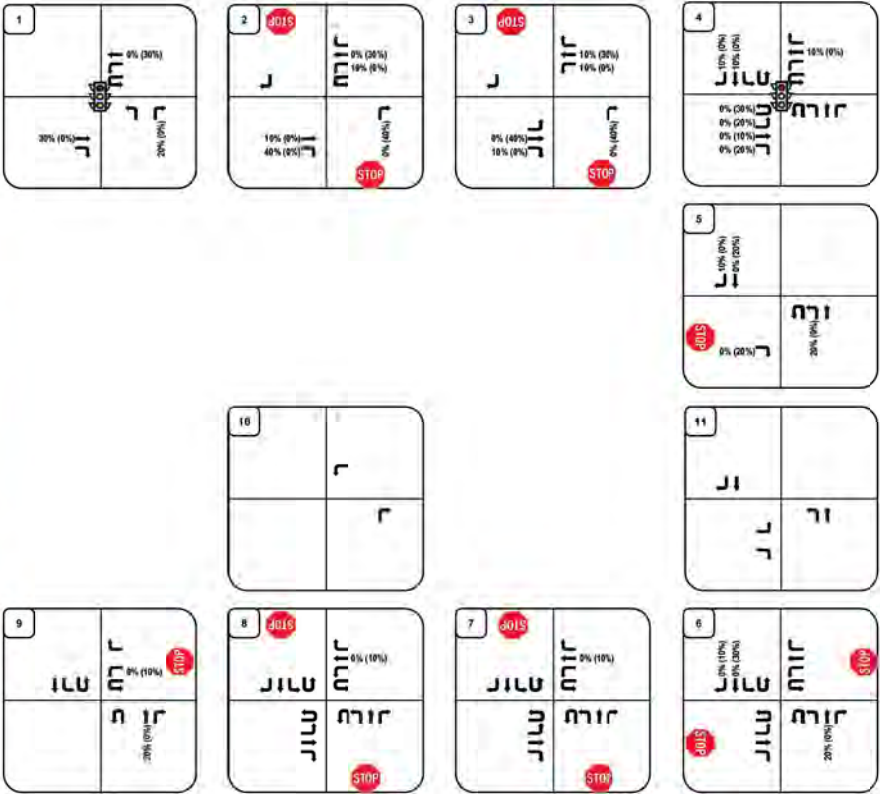


Figure 18: Project Generated Traffic Distribution - Scenario E (Retail)

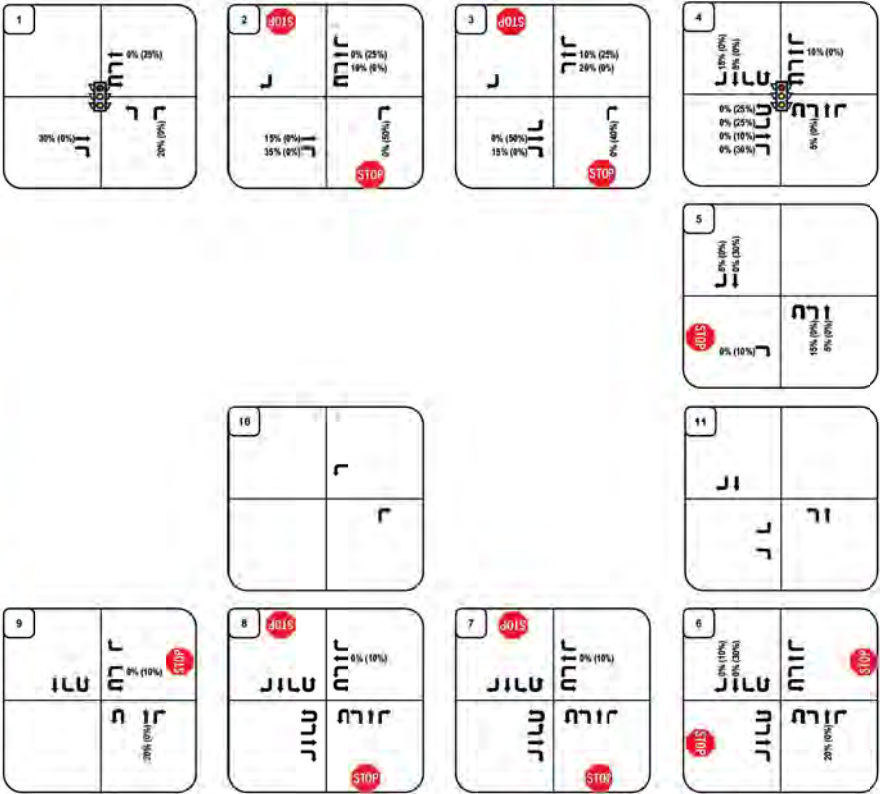


Figure 19: Project Generated Traffic Assignment - Scenario E (Residential & Retail)

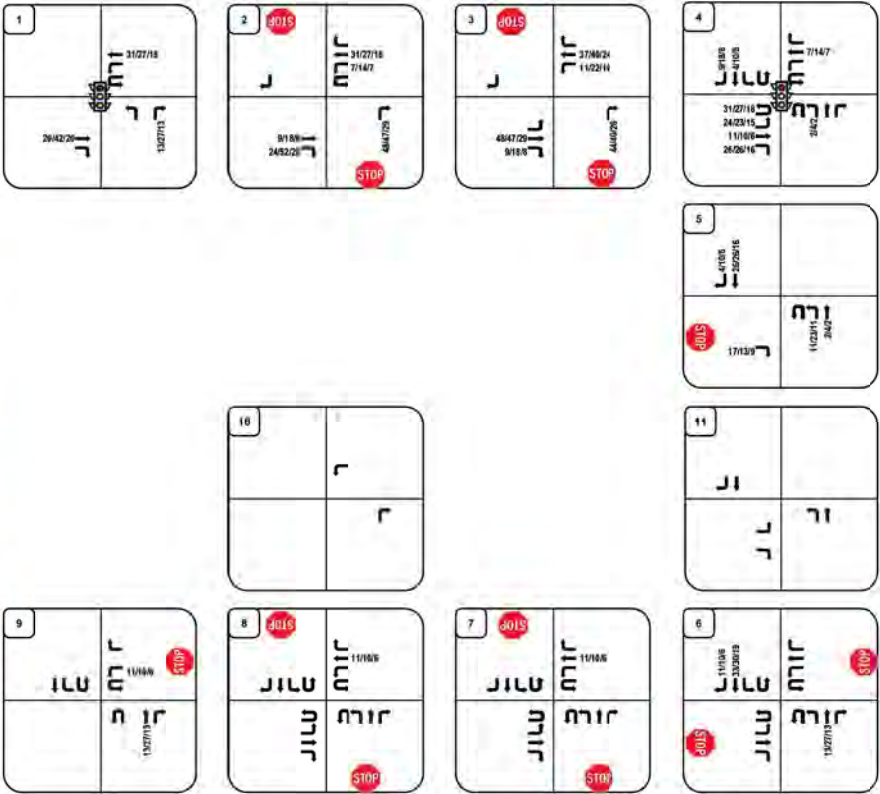


Figure 20: Project Generated Traffic Distribution - Scenario F (Residential)

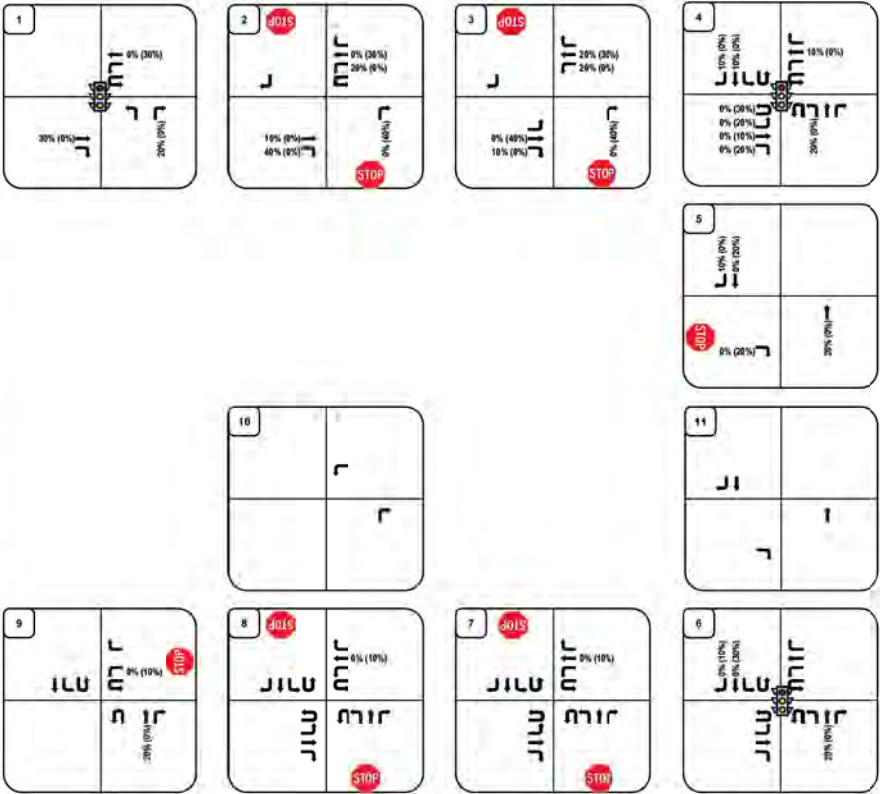


Figure 21: Project Generated Traffic Distribution - Scenario F (Retail)

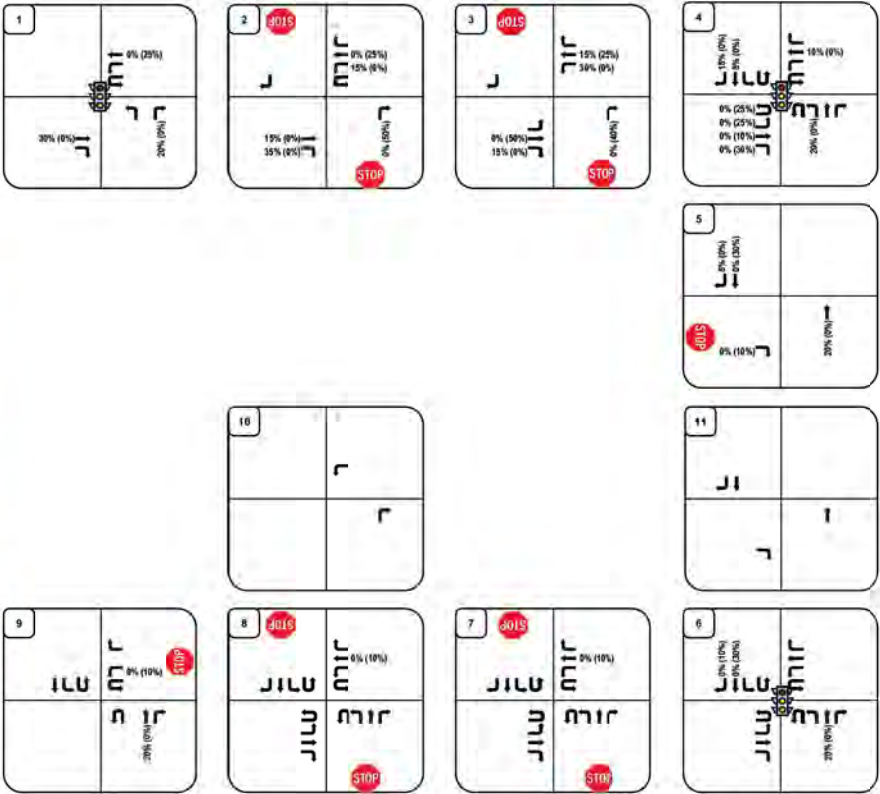


Figure 22: Project Generated Traffic Assignment - Scenario F (Residential & Retail)

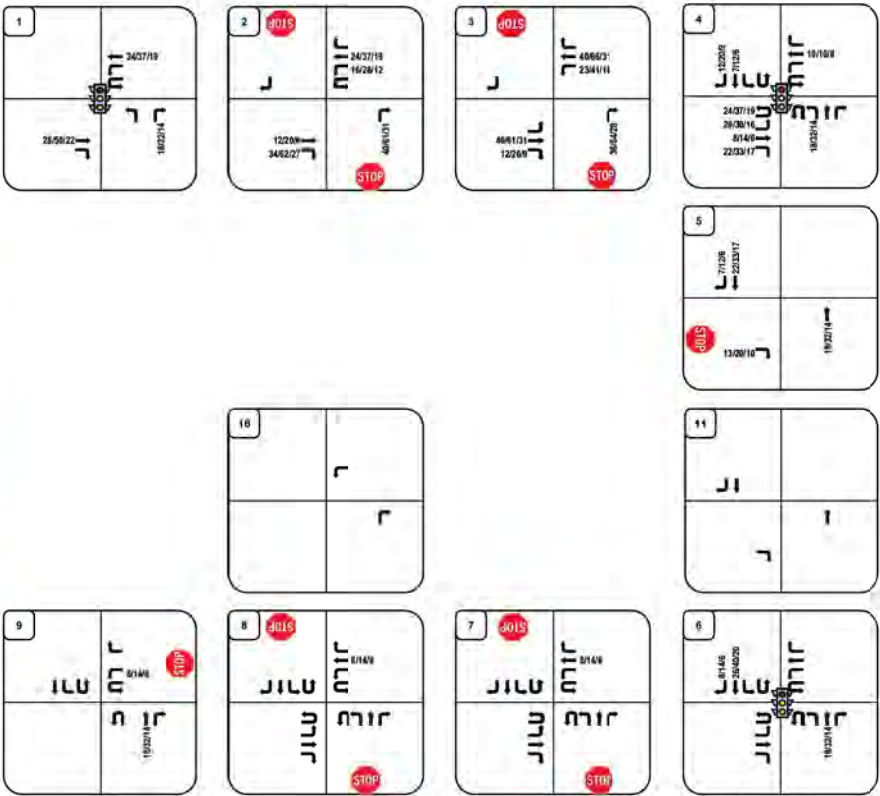


Figure 23: Year 2026 Total Traffic (With Front St Connection)

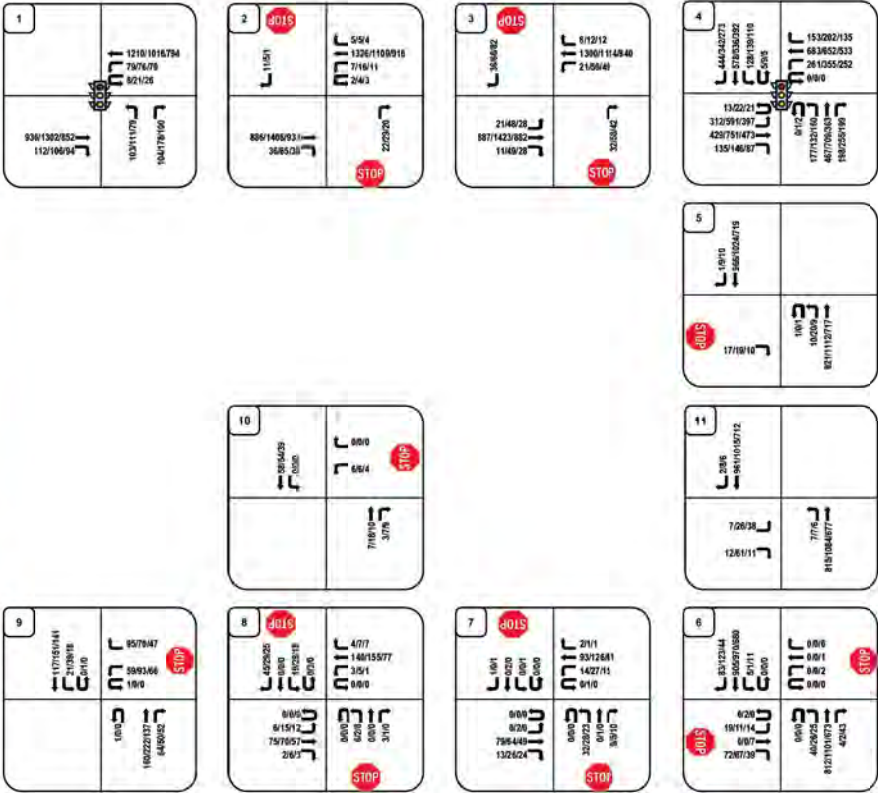


Figure 24: Year 2026 Total Traffic (Without Front St Connection)

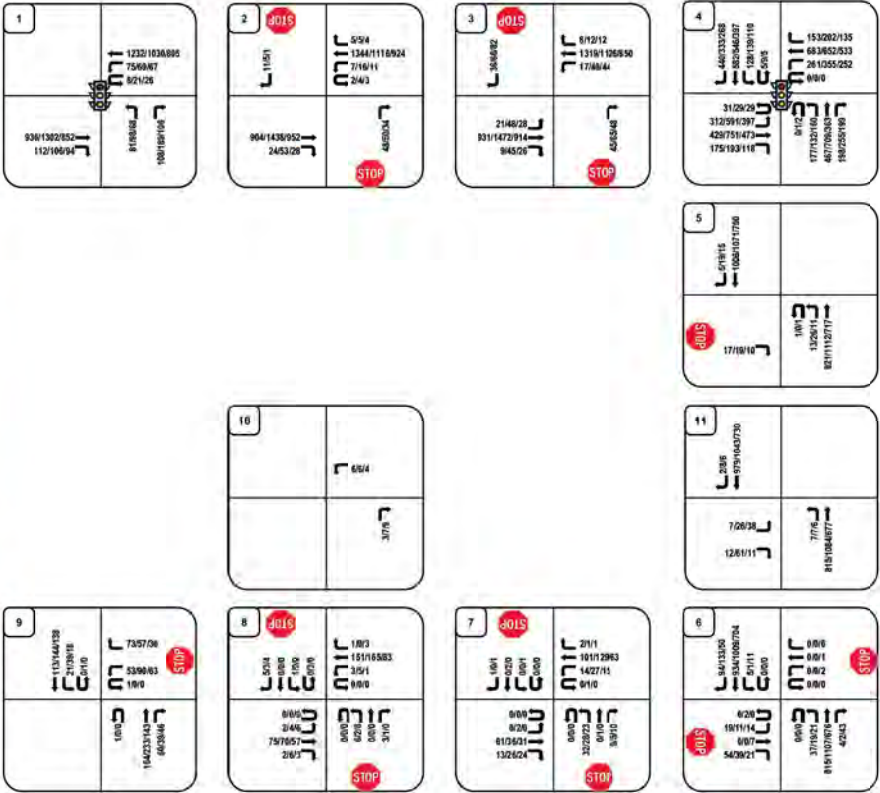


Figure 25: Year 2045 Total Traffic (With Front St Connection)

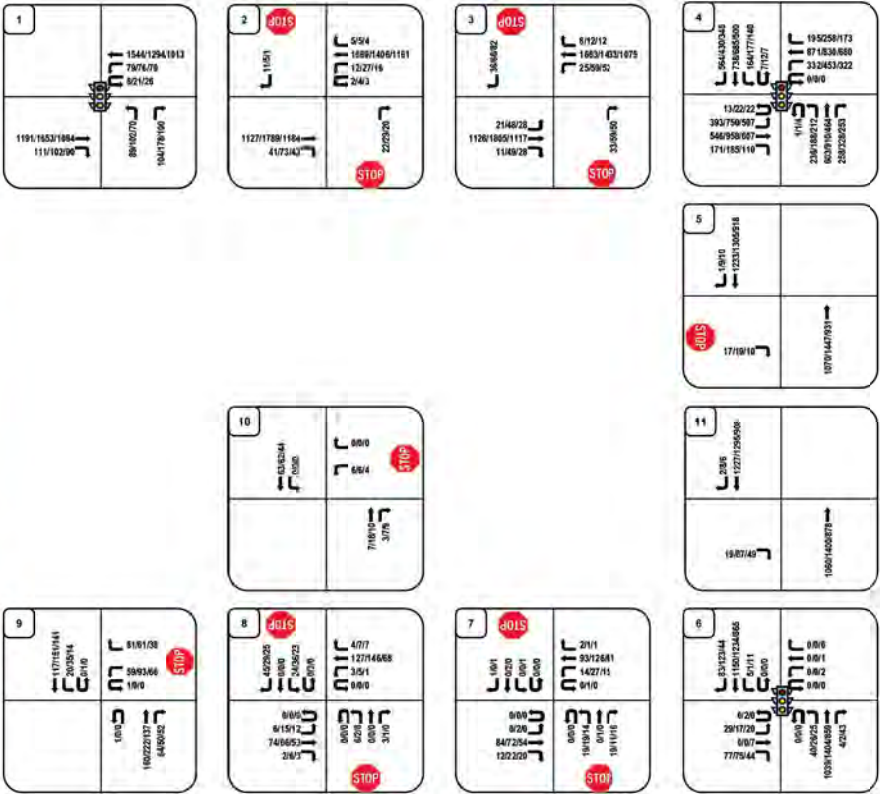
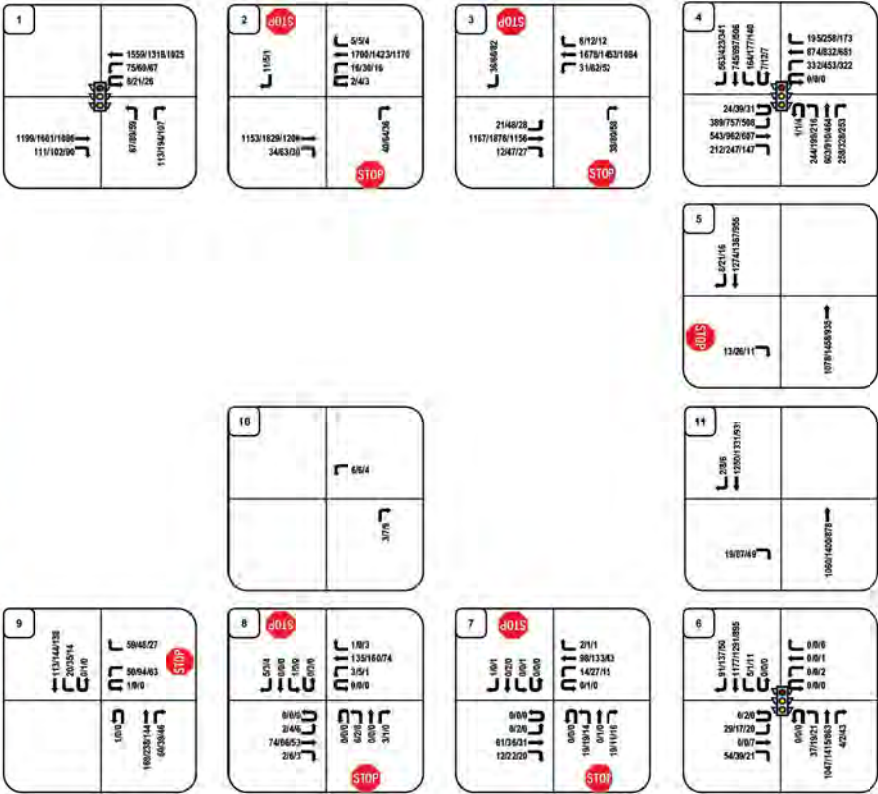


Figure 26: Year 2045 Total Traffic (Without Front St Connection)



6.0 Transportation Impact Analysis

6.1 Total Traffic Level of Service

An *HCM* analysis under total traffic conditions was performed for the proposed site access under both short-term Year 2026 and long-term Year 2045 traffic conditions. Scenarios with and without the Front Street connection were analyzed. The 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 degrade to a LOS C with long-term Year 2045 total traffic conditions with the Front Street connection. Without the Front Street connection, this movement anticipated to operate at a LOS D or better through the same time period. Total traffic conditions have less opposing traffic for this movement. Additionally, 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 currently serves a commercial driveway to the north and Cannon Circle to the south.

A Synchro HCM analysis was conducted by not restricting the 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 recommend access restriction, eastbound and westbound left turns will still be permitted. With these restrictions, 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 with or without the Front Street connection. This is a better LOS than background operations due to the elimination of the difficult through and left turns from the side streets.

Without the Front Street connection, there is anticipated to be 45% more 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.

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. Without the Front Street connection, 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 currently a full-movement "T" intersection. With the buildout of Coal Creek Village, this intersection will be restricted to a $\frac{3}{4}$ 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*, this TIS assumes that the Cannon Circle access is restricted to right-in, right-out movements only. Therefore, Year 2045 total traffic scenarios are anticipated to be LOS C or better with or without the Front Street connection.

Intersection #6 - SH 42 and Griffith Street intersection: This is currently 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 and with or without the Front Street connection. This will occur with or without the Front Street connection.

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 with or without the Front Street connection.

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. With the Front Street connection, the anticipated LOS of the north leg is LOS B through Year 2045 total traffic conditions. Without the Front Street connection, the anticipated LOS of the north leg is LOS A through Year 2045 total traffic conditions. The additional traffic is anticipated to have a nominal impact on the intersection delay with or without the Front Street connection.

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. With the Front Street connection, the anticipated LOS of the east leg is LOS B through Year 2045 total traffic conditions. Without the Front Street connection, the anticipated LOS of the east leg is 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 with or without the Front Street connection.

Intersection #10 – Front Street and Harper Street intersection: This is currently a free-flowing intersection. There is an unimproved alley access as a third, north leg. Scenarios E and F analyze total traffic conditions without the Front Street connection.

With the buildout of Coal Creek Village and with or without the connection of Front Street, all legs of this intersection are anticipate to operate at a LOS A.

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 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 total traffic conditions. With this scenario, the eastbound movement is anticipated to improve to a LOS C.

Table 9: Total Traffic LOS (with the Front Street Connection)

#	Intersection	Traffic Control	Approach	Year 2026 Total with Front Street Level of Service (Delay in Seconds)			Year 2045 Total with Front Street Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
1	South Boulder Road & Main Street	Signal	EBT	A (8.2)	A (10.0)	A (7.0)	A (9.4)	B (13.1)	A (7.7)
			EBR	A (1.4)	A (2.5)	A (1.5)	A (2.2)	A (3.3)	A (1.5)
			WBL	A (5.2)	A (9.3)	A (3.4)	A (4.9)	B (12.8)	A (3.5)
			WBT	A (5.8)	A (6.2)	A (3.3)	A (7.0)	A (7.6)	A (3.4)
			NBL	E (58.4)	E (61.8)	D (48.4)	E (56.2)	E (59.2)	D (47.7)
2	South Boulder Road & Front Street	3/4, NB/SB Stop	NBR	B (13.7)	C (32.8)	B (13.9)	B (13.8)	D (49.3)	B (14.3)
			WBL	B (11.6)	C (18.5)	B (12.1)	B (13.3)	D (26.8)	B (14.2)
			NB	B (12.4)	C (16.9)	B (12.7)	B (14.1)	C (22.1)	B (14.5)
3	South Boulder Road & Cannon Circle	3/4 NB/SB Stop	SB	C (15.5)	B (13.6)	B (12.2)	C (19.4)	C (16.0)	B (13.9)
			EBL	C (17.1)	C (18.0)	B (13.0)	D (26.0)	D (29.8)	C (16.7)
			WBL	B (10.7)	C (16.8)	B (10.9)	B (12.3)	D (25.4)	B (12.6)
4	SH 42 (Courtesy Road) & South Boulder Road	Signal	NB	B (12.6)	C (19.2)	B (12.9)	B (14.5)	D (26.6)	B (15.0)
			SB	C (16.1)	C (15.3)	B (13.2)	C (20.8)	C (19.4)	C (15.4)
			EBL	F (545.3)*	F (953.6)*	F (596.3)*	F (953.0)*	F (1559.4)*	F (964.2)*
			EBT	C (30.5)	D (45.8)*	C (25.7)	C (29.3)	D (41.9)*	C (26.1)
			EBR	-	-	-	A (9.8)	A (6.7)	A (1.2)
			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 (49.0)*	E (58.5)*	D (35.1)
			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 (568.5)*	F (379.1)*	F (341.8)*
			NBT	C (32.6)	E (76.8)*	C (26.6)	D (36.8)	D (48.2)*	C (24.9)
5	SH 42 (Courtesy Rd) & Cannon Circle	EB Stop	NBR	-	-	-	B (10.1)	B (13.2)	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	C (22.3)	A (8.2)	A (6.0)	D (40.4)*	B (16.4)	B (11.1)
			EB	B (12.6)	B (13.1)	B (11.2)	B (14.6)	C (15.3)	B (12.3)
6	SH 42 (Courtesy Road) & Griffith Street	EB/WB Stop	NBL	B (11.6)	B (11.1)	B (10.1)	-	-	-
			EB	F (81.6)	F (96.8)	E (35.4)	-	-	-
			WB	F (77.4)	F (137.2)	D (27.7)	-	-	-
			NB	A (0.5)	A (0.3)	A (0.3)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	Signal	SB	A (0.0)	A (0.0)	A (0.1)	-	-	-
			EBL	-	-	-	C (27.1)	C (25.6)	C (20.4)
			EBT	-	-	-	A (1.0)	A (1.0)	A (9.1)
			WBL	-	-	-	C (24.0)	C (24.0)	B (18.5)
			WBT	-	-	-	C (21.0)	C (21.0)	B (13.3)
			NBL	-	-	-	C (26.8)	C (25.6)	B (17.8)
			NBT	-	-	-	A (4.4)	A (5.7)	A (4.8)
			SBL	-	-	-	C (28.8)	C (33.0)	B (17.6)
7	Griffith Street & Cannon Street	NB/SB Stop	SBT	-	-	-	A (5.1)	A (6.8)	A (4.7)
			SBR	-	-	-	A (0.6)	A (2.0)	A (0.7)
			EB	A (0.0)	A (0.2)	A (0.0)	A (0.0)	A (7.5)	A (0.0)
			WB	A (1.0)	A (0.0)	A (1.4)	A (1.0)	A (0.0)	A (1.4)
8	Griffith Street & Front Street	NB/SB Stop	NB	B (10.1)	B (10.6)	A (9.6)	A (9.7)	B (10.2)	A (9.3)
			SB	A (8.9)	B (11.0)	A (9.2)	A (8.9)	B (11.1)	A (9.3)
			EB	A (0.5)	A (1.3)	A (1.2)	A (0.6)	A (1.3)	A (1.3)
			WB	A (0.2)	A (0.2)	A (0.1)	A (0.2)	A (0.2)	A (0.1)
9	Griffith Street & Main Street	WB Stop	NB	B (10.3)	B (10.4)	B (10.1)	B (10.2)	B (10.3)	A (10.0)
			SB	A (9.9)	B (10.4)	A (9.4)	A (9.9)	B (10.5)	A (9.5)
10	Harper Street & Front Street	WB Stop	WB	C (15.2)	B (13.7)	B (11.6)	B (14.8)	B (13.6)	B (11.5)
			SB	A (1.2)	A (0.0)	A (0.9)	A (1.2)	A (0.0)	A (0.7)
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	WB	A (9.6)	A (9.7)	A (9.5)	A (9.7)	A (9.7)	A (9.6)
			SB	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	EB	D (33.7)	F (118.0)	E (40.9)	B (14.5)	C (17.7)	B (12.7)
			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)

Table 10: Total Traffic LOS (without the Front Street Connection)

#	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)
2	South Boulder Road & Front Street	3/4, NB/SB Stop	NBR	B (13.9)	D (38.7)	B (14.4)	B (14.0)	E (55.7)	B (15.0)
			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)
3	South Boulder Road & Cannon Circle	3/4 NB/SB Stop	SB	C (15.6)	B (13.6)	B (12.3)	C (19.5)	C (16.2)	B (13.9)
			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)
4	SH 42 (Courtesy Road) & South Boulder Road	Signal	SB	C (16.4)	C (15.4)	B (13.3)	C (21.0)	C (19.6)	C (15.5)
			EBL	F (597.4)*	F (969.9)*	F (615.7)*	F (977.5)*	F (1631.4)*	F (990.3)*
			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)*
5	SH 42 (Courtesy Rd) & Cannon Circle	EB Stop	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)
6	SH 42 (Courtesy Road) & Griffith Street	EB/WB 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)	-	-	-
			EB	F (85.8)	F (110.3)	E (41.9)	-	-	-
			WB	A (0.0)	A (0.0)	D (27.3)	-	-	-
6	SH 42 (Courtesy Road) & Griffith Street	Signal	NB	A (0.5)	A (0.2)	A (0.3)	-	-	-
			SB	A (0.0)	A (0.0)	A (0.1)	-	-	-
			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)
7	Griffith Street & Cannon Street	NB/SB Stop	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)
			EB	A (0.0)	A (0.2)	A (0.0)	A (0.0)	A (0.3)	A (0.0)
8	Griffith Street & Front Street	NB/SB Stop	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)
			EB	A (0.2)	A (0.4)	A (0.7)	A (0.2)	A (0.4)	A (0.7)
9	Griffith Street & Main Street	WB Stop	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)
			WB	B (14.4)	B (13.6)	B (11.6)	B (14.0)	B (13.7)	B (11.5)
10	Harper Street & Front Street	None	SB	A (1.3)	A (0.0)	A (0.9)	A (1.2)	A (0.0)	A (0.7)
			WB	-	-	-	-	-	-
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	SB	-	-	-	-	-	-
			EB	D (33.7)	F (118.0)	E (40.9)	B (14.7)	C (18.2)	B (12.9)
11	SH 42 (Courtesy Rd) & Harper Street	EB Stop	NBL	B (10.4)	B (10.7)	A (9.3)	-	-	-
			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 the 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 $\frac{3}{4}$ 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 currently 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: With the front street connection, the southbound queue is anticipated to be one vehicle or less. Without the Front Street connection, the southbound queue is minimal.

Intersection #9 – Griffith Street and Main Street intersection: The southbound left turn can anticipate a queue of less than one vehicle in all 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 6.6**.

Intersection #10 – Front Street and Harper Street intersection: With all scenarios, the northbound queue is anticipated to be less than one vehicle.

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.

Analysis Scenario with the Front Street Connection: The current site plan includes a Front Street connection. This connection aligns with the City of Louisville’s previous *The Highway 42 Revitalization Area Framework Plan*¹⁴ and *42 Gateway Alternative Analysis Report*¹⁵ plans to connect South Boulder Road and Griffith Street via Front Street. Excerpts from these reports are included in the **Appendix**.

The Front Street connection will allow for transportation redundancy as part of a gridded street network. Gridded networks have more capacity with narrower roadways that are safer for pedestrians and other multimodal traffic.

In the Year 2026 and Year 2045 total traffic scenarios with the Front Street connection, it is recommended that Front Street becomes the through street, resulting in the installation of westbound stop-control on Harper Street.

With the Front Street connection, it is recommended that traffic calming measures are constructed to attenuate operations on Front Street. Several measures that may be considered are described in the City of Louisville's *Transportation Master Plan*. This document's Neighborhood Traffic Management Program (NTMP) focuses on neighborhood-level traffic calming and safety improvements. These improvements help maintain the City's family-friendly small-town character. Examples of tools utilized within an NTMP include, but are not limited to the following.

- Enhanced or raised pedestrian crossings
- Medians and/or entry islands
- Curb extensions
- Speed humps or cushions
- Speed monitoring and enforcement campaigns
- Education campaigns

Analysis Scenario without the Front Street Connection: A second scenario does not include vehicular access from the proposed Coal Creek Village to Front Street. With this option, pedestrian and multimodal connectivity are still encouraged.

In the Year 2026 and Year 2045 total traffic scenarios without the Front Street connection, no changes from the current conditions are considered. Therefore, there no additional vehicular traffic is anticipated without the Front Street connection.

Without the Front Street connection, both Coal Creek Village and other surrounding background traffic will have travel paths impacted by the access control on South Boulder Road and SH 42. Drivers are more likely to make weave movements egressing the South Boulder Road accesses to reach the eastbound left turn lane at the signalized intersection of South Boulder Road and SH 42. Without the Front Street connection, there is anticipated to be 45% more 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.

Table 11: Anticipated Front Street Traffic Volumes with and without the Connection between South Boulder Road and Griffith Street

Scenario	Traffic Volume in vph (vehicle trips per hour)			Time between vehicles (average gap time)		
	AM	PM	SAT	AM	PM	SAT
Total 2045 With Front St Connection	79 vph	93 vph	67 vph	1 car every 45 seconds	1 car every 38 seconds	1 car every 53 seconds
Total 2045 Without Front St Connection	9 vph	13 vph	13 vph	1 car every 400 seconds (6.5 minutes)	1 car every 276 seconds (4.6 minutes)	1 car every 276 seconds (4.6 minutes)

The anticipated total Year 2045 daily traffic volume on Front Street was calculated at a location directly north of Griffith Street. The same methodology graphically represented in

Figure 8 and **Figure 10** was used for the scenarios with and without the Front Street connection, respectively.

Front Street is anticipated to have less than 1,000vpd, which is considered the local residential roadway capacity for livability. In actuality, the roadway can technically handle a much larger volume of vehicles. Different municipalities typically use 1,000 – 1,500vpd as the capacity of a local residential roadway. This analysis conservatively uses the 1,000vpd capacity.

The following figures provide a breakdown of the anticipated future Year 2045 traffic volumes on Front Street with and without the Front Street connection. The total daily capacity is considered to be a conservative 1,000vpd. The total hourly capacity, using a design hourly volume of 10%, is considered to be 100vph.

Figure 27: Year 2045 Total Daily Traffic (vpd) (With Front Street Connection)

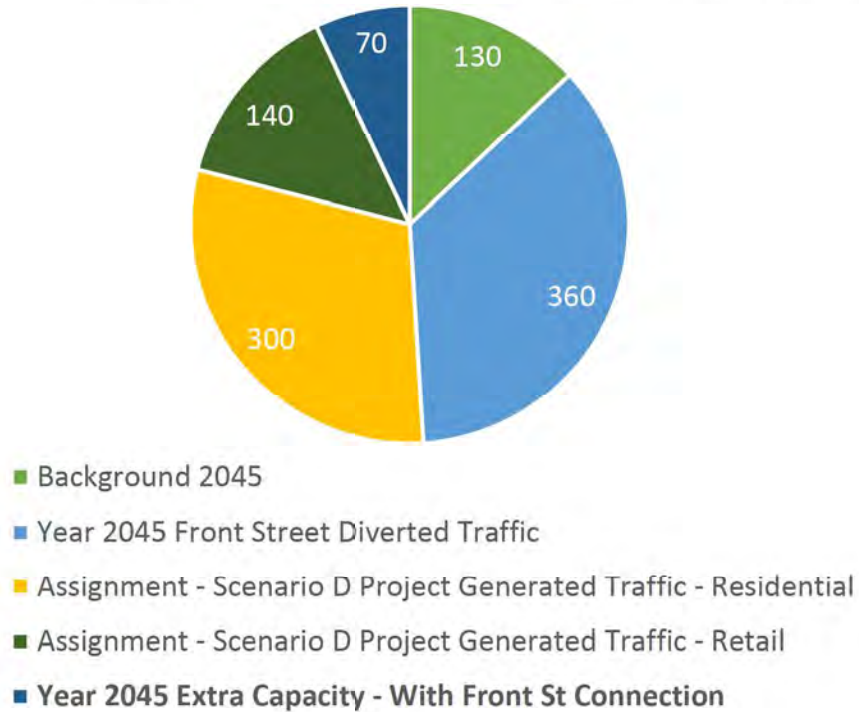
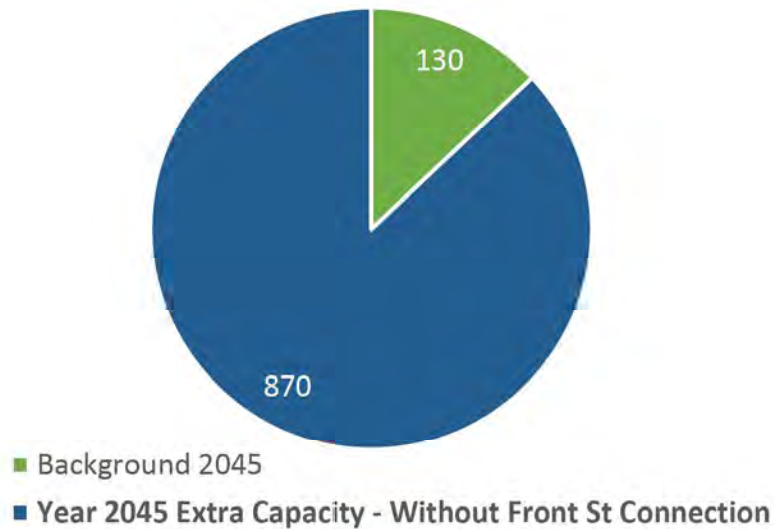


Figure 28: Year 2045 Total Daily Traffic (vpd) (Without Front Street Connection)



The excess capacity on Front Street in each of these scenarios is depicted in bold and dark blue.

Similarly, the anticipated total Year 2045 hourly peak traffic volumes were calculated at a location directly north of Griffith Street. Front Street is anticipated to have less than 100vph, which is considered the local residential roadway capacity for livability.

Figure 29: Year 2045
Total Morning Peak Hour
Traffic (vph) (With Front
Street Connection)

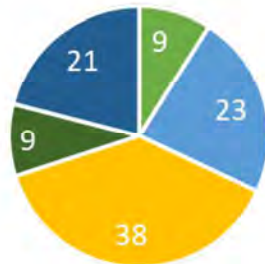


Figure 30: Year 2045
Total Evening Peak Hour
Traffic (vph) (With Front
Street Connection)

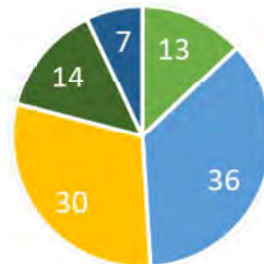
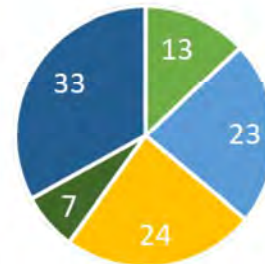


Figure 31: Year 2045
Total Saturday Peak Hour
Traffic (vph) (With Front
Street Connection)



- Background 2045
- Year 2045 Front Street Diverted Traffic
- Assignment - Scenario D Project Generated Traffic - Residential
- Assignment - Scenario D Project Generated Traffic - Retail
- Year 2045 Extra Capacity - With Front St Connection

Cannon Circle Access: Cannon Circle will also 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.

6.4 Turn Lane Requirements

The need for auxiliary turn lanes were 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 12** below for the auxiliary turn lane recommendations and details.

¹⁰ State of Colorado State Highway Access Code, 2002.

Table 12 - Auxiliary Turn Lane Requirements (continued) 4

#	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 2045 Total with Front Street			Year 2026 Total without Front Street			Year 2026 Total with Front Street			Year 2045 Total without Front Street			Existing Turn Lane	Trigger Year & Condition
							AM	PM	SAT	AM	PM	SAT	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	112	106	94	111	102	90	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	79	76	70	75	69	67	79	76	70	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	103	111	79	81	98	68	89	102	70	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	104	178	100	108	189	106	104	178	100	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	0	0	0	0	0	0	None	
		EBR	D	45	Local	N/A	0	1	3	0	1	3	0	1	3	35	65	38	24	53	28	41	73	43	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	7	16	11	12	27	16	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	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	0	0	0	0	0	0	None	
		NBR	C	20	Local	N/A	0	3	5	0	3	5	0	3	5	22	29	20	48	50	34	22	29	20	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	22	29	20	48	50	34	22	29	20	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	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	11	5	1	11	5	1	None	Private Access not applicable to this project.
		EBL	C		Local	N/A	21	48	28	21	48	28	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	C		Local	N/A	0	27	15	0	27	15	0	27	15	11	49	28	9	45	26	11	49	28	12	47	27	None	Assume NR-B Equivalent. 49vph. 50' storage + 10' lane @ 13.5:1 (135' taper). Need to construct turn lane.
		WBL	C		Local	N/A	6	18	34	6	18	34	8	21	34	21	50	49	17	40	44	25	59	52	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.
3	S. Boulder Road & Cannon Circle	WBR	C		Local	N/A	8	12	12	8	12	12	8	12	12	8	12	12	8	12	12	8	12	12	8	12	12	None	Private Access not applicable to this project.
		NBL	C		Local	N/A	0	2	8	0	2	8	0	2	8	0	0	0	0	0	0	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	32	58	42	45	65	48	33	59	50	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	C		Local	N/A	8	21	23	8	21	23	8	21	23	0	0	0	0	0	0	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	C		Local	N/A	28	45	56	28	45	56	28	45	56	35	66	82	36	66	82	36	66	82	36	66	82	45' Lane	Assume NR-B Equivalent. 82vph. No safety/operational concerns, therefore accel lanes is not required.
		EBL	D	45	Local	N/A	281	554	372	288	568	382	369	727	492	312	591	397	312	591	397	393	750	507	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	100	214	130	135	146	87	175	193	118	171	185	110	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	135	146	87	175	193	118	171	185	110	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	261	355	252	332	453	322	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	153	202	135	195	258	173	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	153	202	135	195	258	173	195	258	173	None	258vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with Future 42 Plan implementation.
4	Courtyard Road (SH42) & S. Boulder Road	NBL	D	45	NR-A	> 10	171	125	154	175	128	158	226	167	202	177	132	160	177	132	160	236	188	212	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	158	255	199	198	255	199	258	328	253	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	158	255	199	198	255	199	258	328	253	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	128	139	110	164	177	140	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	444	342	273	440	333	268	564	430	345	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	444	342	273	440	333	268	564	430	345	563	423	341	None	Assume NR-B Equivalent. 564vph. To be coordinated with Future 42 Plan implementation.
		EBL	D	20	Local	N/A	1	1	8	1	1	8	0	0	0	1	1	8	1	1	8	0	0	0	0	0	0	None	Project to construct median extension to restrict to 3/4 movement. Future 42 Plan will restrict to RIPO 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	17	19	10	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	17	19	10	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	10	20	9	13	26	11	0	0	0	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	1	9	10	5	19	15	1	9	10	8	21	16	None	21vph. Does not meet Access Code requirements for construction of a decel lane.

Table 13 - Auxiliary Turn Lane Requirements (continued) 4

#	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 2045 Total with Front Street			Year 2026 Total without Front Street			Year 2026 Total with Front Street			Year 2045 Total without Front Street			Existing Turn Lane	Trigger Year & Condition
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT		
6	Courtesy Road (SH42) & Griffith Street	EBL	C	25	Local	N/A	15	7	10	19	11	14	29	17	20	19	11	14	19	11	14	29	17	20	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	C	25	Local	N/A	54	39	21	54	39	21	54	39	21	72	67	39	54	39	21	77	75	44	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	72	67	39	54	39	21	77	75	44	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	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	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	0	0	6	0	0	6	None	Private Access not applicable to this project.
		NBL	C	45	NR-A	>10	37	19	21	37	19	21	37	19	21	40	26	25	37	19	21	40	26	25	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	C	45	NR-A	>25	4	2	43	4	2	43	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	4	2	43	4	2	43	None	
		SBL	C	45	NR-A	>10	5	1	11	5	1	11	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.
7	Griffith Street & Cannon Street	SBR	C	45	NR-A	>25	81	117	38	83	123	44	83	123	44	83	123	44	94	133	50	83	123	44	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	83	123	44	94	133	50	83	123	44	91	137	50		
		EBL	C	25	Local	N/A	0	2	0	0	2	0	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	13	26	24	12	22	20	12	22	20	None	Volume does not meet requirements for construction of a decel lane.
		WBL	C	25	Local	N/A	12	21	9	14	27	15	14	27	15	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	C	25	Local	N/A	2	1	1	2	1	1	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	C	20	Local	N/A	10	11	6	32	28	23	19	19	14	32	28	23	32	28	23	19	19	14	19	19	14	None	Volume does not meet requirements for construction of a decel lane.
		NBR	C	20	Local	N/A	5	1	6	9	5	10	10	11	16	5	5	10	5	5	10	10	11	16	10	11	16	None	Volume does not meet requirements for construction of a decel lane.
		SBL	C	20	Local	N/A	0	0	1	0	0	1	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	C	20	Local	N/A	1	0	1	1	0	1	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	C	25	Local	N/A	2	4	6	2	4	6	2	4	6	6	15	12	2	4	6	6	15	12	2	4	6	None	Volume does not meet requirements for construction of a decel lane.
		EBR	C	25	Local	N/A	2	6	3	2	6	3	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	C	25	Local	N/A	3	5	1	3	5	1	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	C	25	Local	N/A	1	0	3	1	0	3	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	C	20	Local	N/A	6	2	8	6	2	8	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	C	20	Local	N/A	3	1	0	3	1	0	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	C	20	Local	N/A	1	0	0	1	0	0	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	C	20	Local	N/A	5	3	4	5	3	4	5	3	4	45	29	25	5	3	4	45	29	25	5	3	4	None	Volume does not meet requirements for construction of a decel lane.
		WBL	C	25	Local	N/A	35	74	51	42	80	57	42	80	57	59	93	66	53	90	63	59	93	66	50	94	63	None	Volume does not meet requirements for construction of a decel lane.
		WBR	C	25	Local	N/A	57	46	25	73	57	36	59	48	27	95	70	47	73	57	36	81	61	38	59	48	27	None	Volume does not meet requirements for construction of a decel lane.
9	Griffith St & Main St	NBR	C	25	Local	N/A	57	31	38	60	39	46	60	39	46	64	50	52	60	39	46	64	50	52	60	39	46	None	Volume does not meet requirements for construction of a decel lane.
		SBL	C	25	Local	N/A	18	32	11	21	39	18	20	35	14	21	39	18	21	39	18	20	35	14	20	35	14	None	Volume does not meet requirements for construction of a decel lane.
		WBL	C	25	Local	N/A	6	6	4	6	6	4	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	C	25	Local	N/A	0	0	0	0	0	0	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	C	25	Local	N/A	3	7	9	3	7	9	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	C	25	Local	N/A	0	0	0	0	0	0	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.
		EBL	C	20	Local	N/A	7	26	38	7	26	38	0	0	0	7	26	38	7	26	38	0	0	0	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	12	61	11	19	87	49	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	12	61	11	19	87	49	19	87	49	None	77vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with the Future 42 plan implementation.
		NBL	C	45	NR-A	>10	7	7	6	7	6	0	0	0	7	7	6	7	7	6	0	0	0	0	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
10	Front St & Harper St	SBR	C	45	NR-A	>25	2	8	6	2	8	6	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.
		EBL	C	20	Local	N/A	7	26	38	7	26	38	0	0	0	7	26	38	7	26	38	0	0	0	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	12	61	11	19	87	49	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	12	61	11	19	87	49	19	87	49	None	77vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with the Future 42 plan implementation.
		NBL	C	45	NR-A	>10	7	7	6	7	6	0	0	0	7	7	6	7	7	6	0	0	0	0	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
		SBR	C	45	NR-A	>25	2	8	6	2	8	6	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.
		EBL	C	20	Local	N/A	7	26	38	7	26	38	0	0	0	7	26	38	7	26	38	0	0	0	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	12	61	11	19	87	49	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	12	61	11	19	87	49	19	87	49	None	77vph. Accel lane per CDOT 550' lane including 13.5:1 taper. To be coordinated with the Future 42 plan implementation.
		NBL	C	45	NR-A	>10	7	7	6	7	6	0	0	0	7	7	6	7	7	6	0	0	0	0	0	0	0	None	Volume does not meet requirements for construction of a decel lane.
11	Courtesy Road (SH42) & Griffith Street	SBR	C	45	NR-A	>25	2	8	6	2	8	6	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.

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 $\frac{3}{4}$ 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 currently a full-movement "T" intersection. With the buildout of Coal Creek Village, this intersection will be restricted to a $\frac{3}{4}$ 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 currently 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 6.6** for analysis of the crossing impacts.

It is recommended that the intersection of Griffith Street and Front Street is signed and striped with “Do not block intersection” to allow for ingress and egress movements at the Griffith Street and Front Street intersection during train crossings.

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 with the Front Street Connection: This is currently a free-flowing intersection. There is an unimproved alley access as a third, north leg. With the buildout of Coal Creek Village and a connection of Front Street from South Boulder Road to Griffith Street, it is recommended that Front Street is designed as the through street and Harper Street is stop-controlled with a stop sign. The installation of a stop sign, stop bar, and painted pedestrian crosswalk should be included on the north leg of Front Street.

It is recommended that traffic calming is implemented along Front Street to encourage slower and safer travel speeds.

Intersection #10 – Front Street and Harper Street intersection without the Front Street Connection: This is currently a free-flowing intersection. There is an unimproved alley access as a third, north leg. Without the construction of a Front Street connection from South Boulder Road to Griffith Street, the existing conditions of this intersection would remain in place.

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 double traffic at the Cannon Circle access with the Front Street connection. Without the Front Street connection, the 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. 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 Map*¹⁶ 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 improvements will also assist with Front Street egress onto Griffith Street.

6.6 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 32: 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 14** and **Table 15.** 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 with Front Street PM Peak hour scenario. **Figure 32** 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 14: Queuing Summary (3 Minute Delay)

Scenario	Sum of (50th Percentile)		Sum of (95th Percentile)	
	Queue Length (ft.)		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 With Front Street AM	100	200	200	325
Total 2026 With Front Street PM	100	225	200	350
Total 2026 With Front Street SAT	75	150	175	250
Total 2026 Without Front Street AM	100	150	200	275
Total 2026 Without Front Street PM	100	175	175	300
Total 2026 Without Front Street SAT	75	125	150	225
Total 2045 With Front Street AM	100	175	200	300
Total 2045 With Front Street PM	100	200	200	350
Total 2045 With Front Street SAT	75	125	175	250
Total 2045 Without Front Street AM	100	125	200	250
Total 2045 Without Front Street PM	100	175	175	300
Total 2045 Without Front Street SAT	75	100	150	200

Table 15: Queuing Summary (5 Minute Delay)

Scenario	Sum of (50th Percentile)		Sum of (95th Percentile)	
	Queue Length (ft.)		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 With Front Street AM	175	350	300	500
Total 2026 With Front Street PM	200	375	325	550
Total 2026 With Front Street SAT	150	250	250	400
Total 2026 Without Front Street AM	175	250	275	400
Total 2026 Without Front Street PM	150	300	275	450
Total 2026 Without Front Street SAT	125	200	225	325
Total 2045 With Front Street AM	175	325	300	475
Total 2045 With Front Street PM	175	350	300	525
Total 2045 With Front Street SAT	125	225	250	375
Total 2045 Without Front Street AM	175	225	275	350
Total 2045 Without Front Street PM	150	300	250	450
Total 2045 Without Front Street 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.

Front Street Connection:

This TIS includes analysis of scenarios with and without the Front Street connection. Due to the sites' direct access to S. Boulder Road with heavy through volumes, the site accesses will have restricted turning movements. Without the Front Street connection, more vehicles access South Boulder Road from the Cannon Circle access creating additional weave and U-turn movements that present safety concerns. Both the City staff and the TIS recommendations are to include the Front Street connection.

The Front Street connection provides numerous benefits to the Louisville community. The Front Street connection will allow for transportation redundancy as part of a gridded street network. Gridded networks have more capacity and increase circulation with narrower roadways that are safer for pedestrians and other multimodal traffic. It also aligns with the City's previous planning efforts.

Without the Front Street connection, there is anticipated to be an additional 25% of the exiting site distribution that would use the eastbound U-turn, which amounts to between 8 to 18vph. This equates to an anticipated increase of between 40% and 85% for the eastbound U-turn movements on South Boulder Road in the long-term traffic scenarios. This includes a difficult weave movement across two or three lanes of traffic in the 400 feet between the northern site accesses to the eastbound left turn lane at the signalized intersection.

Under both scenarios, Front Street is anticipated to stay within Front Street's local residential street capacity.

With the Front Street connection, it is recommended that traffic calming measures are constructed to attenuate operations on Front Street. Several measures that may be considered are described in the City of Louisville's *Transportation Master Plan*. This document's Neighborhood Traffic Management Program (NTMP) focuses on neighborhood-level traffic calming and safety improvements. These improvements help maintain the City's family-friendly small-town character. Examples of tools utilized within an NTMP include, but are not limited to the following.

- Enhanced or raised pedestrian crossings
- Medians and/or entry islands
- Curb extensions
- Speed humps or cushions

- Speed monitoring and enforcement campaigns
- Education campaigns

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 $\frac{3}{4}$ 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 $\frac{3}{4}$ 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.

It is recommended that with the Front Street connection, a pedestrian crossing of Griffith Street is installed with a rectangular, rapid flashing beacon (RRFB) to assist pedestrians in crossing Griffith Street.

Additionally, with the Front Street connection, this intersection should have 'Do Not Block Intersection' signage and striping added that will assist with traffic accessing Front Street.

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 intersection of Griffith Street and Front Street has 'Do Not Block Intersection' signage and striping added that will assist with traffic accessing Front Street.

Intersection #10 – Front Street and Harper Street intersection with the Front Street Connection: This is currently a free-flowing intersection. There is an unimproved alley access as a third, north leg. With the buildout of Coal Creek Village and a connection of Front Street from South Boulder Road to Griffith Street, it is recommended that Front Street is designed as the through street and Harper Street is stop-controlled with a stop sign. The installation of a stop sign, stop bar, and painted pedestrian crosswalk should be included on the north leg of Front Street.

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. *The Highway 42 Revitalization Area Framework Plan*. City of Louisville, May 2003.
15. *42 Gateway Alternative Analysis Report*. City of Louisville, 2013.
16. *Louisville Middle School Travel Map*. Boulder Valley School District, 2024.
17. *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: *The Highway 42 Revitalization Area Framework Plan* Excerpt of Framework Plan

Appendix L: *42 Gateway Alternative Analysis Report* Excerpt of Future Roadway Network

Appendix M: 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)
- Figure AP06: Front Street Diverted Traffic (Year 2026)
- Figure AP07: Front Street Diverted Traffic (Year 2045)

Appendix N: Synchro Modeling Reports

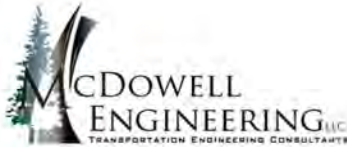
Appendix O: Louisville TMP Pages

Appendix P: Railroad Queuing Calculations

Appendix Q: Louisville Middle School Travel Map

Appendix R: Intersection Queues

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:		Mixed Use Redevelopment						
Application type (rezoning, subdivision), acreage, new or re-development, etc.								
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	%
	Multimodal	Use:	5	%		Use:		%

*Include in Trip Generation table if provided. Submit calculations based upon ITE's Trip Generation Handbook.

McDowell Engineering Traffic Study Scoping Form

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

Table 1 - Coal Creek Station
Project Trip Generation
Estimated Project-Generated Traffic¹

PROJECT NUMBER:
PREPARED BY:
DATE:
REVISED:

M1663
KJS
2025-02-26

ITE Trip Generation Equation ³							Average Weekday	Morning Peak Hour Inbound		Morning Peak Hour Outbound		Evening Peak Hour Inbound		Evening Peak Hour Outbound		Saturday Peak Hour Inbound		Saturday Peak Hour Outbound		
ITE Code	Units ²		Eg. Coef	Avg. Weekday	AM Peak Hour	PM Peak Hour	Sat. Peak Hour	Trips (vpd)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	Trips (vph)	% Trips	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

340

Enter from External

30% 114

Demand

6

Balanced

28% 6

Demand

28% 107

Demand

6

Balanced

30% 6

Demand

11% 42

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

13

Enter from External

Demand Balanced Demand

9% 2 2 38% 231

Demand Balanced Demand

11% 2 2 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

572

Enter from External

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%



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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: AM Peak

Exit to External

44

45
Enter from External

29% 14
Demand

1
Balanced

31% 1
Demand

31% 15 7% 3
Demand

0
Balanced

29% 0
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

1
Enter from External

Demand Balanced Demand

5% 0 0 34% 23

Demand Balanced Demand

7% 0 0 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%

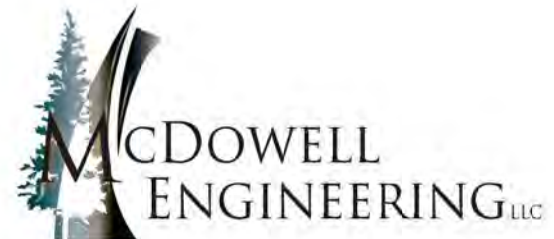
Exit to External

19

64

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	64	109	
Total	89	2	83	174	
Single Use Trip Gen.	96	3	89	188	7.6%



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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: PM Peak

Exit to External
68

83
Enter from External

20% 16
Demand

1
Balanced

20% 1
Demand

20% 18 12% 9
Demand

1
Balanced

20% 1
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 Balanced Demand

9% 0 0 53% 22

Demand Balanced Demand

12% 0 0 31% 21

LAND USE C

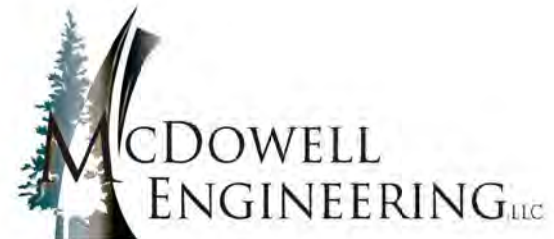
ITE LU Code #220 Multifamily Housing
Size 188 DU

	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%



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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: SAT Peak

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 Balanced Demand

9% 1 1 53% 19

Demand Balanced Demand
12% 1 1 31% 11

LAND USE C

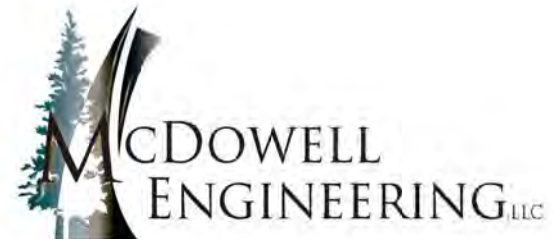
ITE LU Code #220 Multifamily Housing
Size 188 DU

	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	75	
Exit	35	5	31	71	
Total	73	11	62	146	
Single Use Trip Gen.	85	15	73	173	17.0%



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



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: ¹Not Stop Controlled (Free Flowing)

²Westbound Stop Controlled

³RIRO = Right-In-Right-Out

Appendix B: Site Plan

COAL CREEK VILLAGE

PRELIMINARY PUD
AND SRU

LOUISVILLE, COLORADO

PREPARED BY:



PLANNER / LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
415 Canyon Ave., Suite 201
Fort Collins, CO 80521
P: 970.224.5638

COWNER

COAL CREEK VILLAGE LLC
1221 Main Street
Boulder, Colorado 80501
P: 303.440.5000

ENGINEER

ROCKY RIDGE CIVIL ENGINEERING
400 21ST AVENUE, SUITE 101
LONGMONT, COLORADO 80501
P: 303.775.5155



SCALE: 1"=60'-0"

DESIGN SITE DATA

NO.	DESCRIPTION	DATE
1	PRELIMINARY PUD	01/20/2011
2	PRELIMINARY PUD R2	06/21/2011
3	PRELIMINARY PUD R3	06/11/2012
4	PRELIMINARY PUD R4	12/02/2012
5	PRELIMINARY PUD R5	04/04/2013
6	PRELIMINARY PUD R6	05/14/2014

REVISIONS

NO.	DESCRIPTION	DATE

SITE PLAN

SEAL:



PROJ. NO.: PUD-030

DRAWN BY:

REVIEWED BY:

DRAWING NUMBER:

3 OF 32

LEGEND

SYMBOL	DESCRIPTION
	DRIVE AND PARKING
	OPEN SPACE & LANDSCAPE AREA - HSA
	LANDSCAPE AREA - R.O.W.
	WALK AREA, DRIVEWAYS & PORCHES
	TRASH & RECYCLE ENCLOSURE
	BIKE RACK (5 SPACES)
	DOG WASTE STATION
	TREE GRATE
	PROPOSED SKIN
	INLET GRATE
	WATER METER
	FIRE HYDRANT
	STREET LIGHT
	TRANSFORMER
	PROPERTY BOUNDARY
	FIBER OPTIC UTILITY
	GAS UTILITY
	STORM DRAIN UTILITY
	SANITARY SEWER UTILITY
	TELEPHONE UTILITY
	UNDERGROUND ELECTRIC UTILITY
	WATER LINE UTILITY
	EASEMENT
	PROPOSED FENCING OR HANDRAIL, REFER TO FENCING PLAN
	PROPOSED RETAINING WALL
	ALLEY LOAD TOWNHOME LOT NUMBER
	MICRO TOWNHOME BUILDING NUMBER
	UTILITY EASEMENT
	DRAINAGE EASEMENT
	EMERGENCY ACCESS EASEMENT
	UTILITY, SIDEWALK, AND MAINTENANCE EASEMENT
	EXCLUSIVE UTILITY EASEMENT

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

Appendix C: Traffic Counts

Main St S Boulder Rd

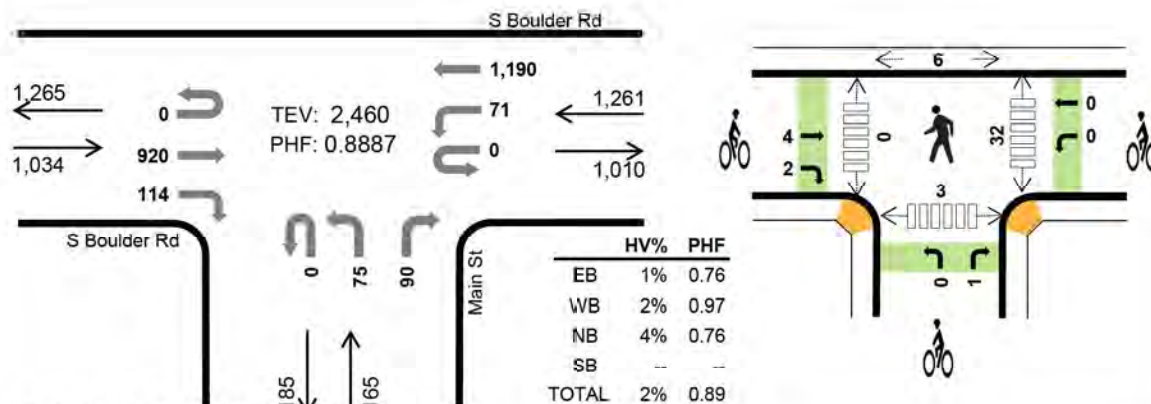


Peak Hour

Date: 11/5/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



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

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	2,460	
	HV	0	0	13	2	0	2	22	0	0	2	0	5	0	0	0	46	
	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

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	0	1	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	0	1	0	0	0	7	
Pk Hr Bike	0	0	4	2	0	0	0	0	0	0	0	0	1	0	0	0	7	

Main St S Boulder Rd

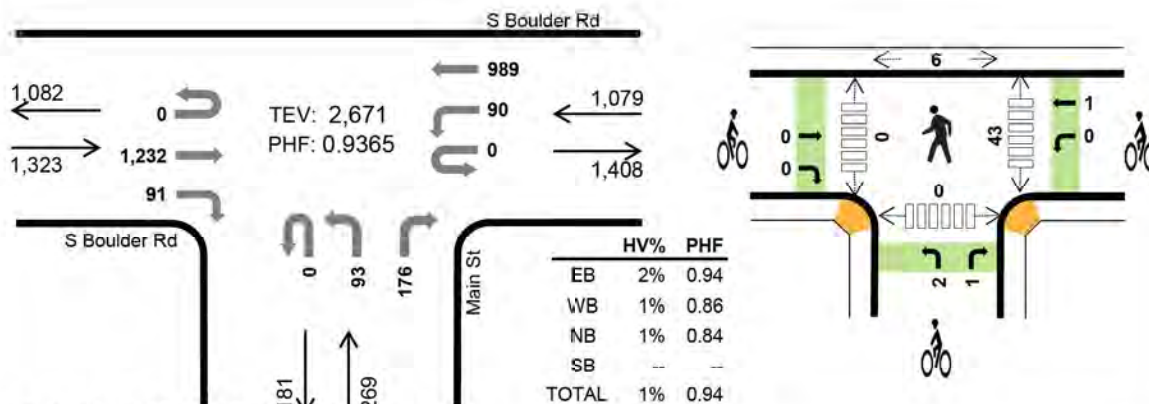


Peak Hour

Date: 11/5/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



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

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	
	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%	

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

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	0	1	0
4:15 PM	0	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	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	0	3
5:00 PM	0	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	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	0	2
5:45 PM	0	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	0	5	
Pk Hr Bike	0	0	0	0	0	0	1	0	0	2	0	1	0	0	0	0	0	4	

Main St S Boulder Rd

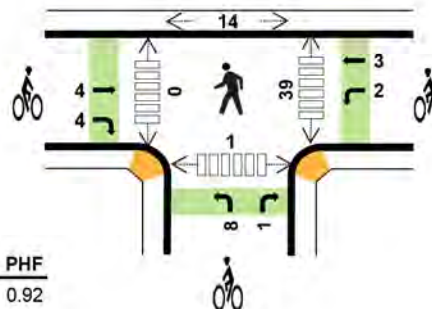
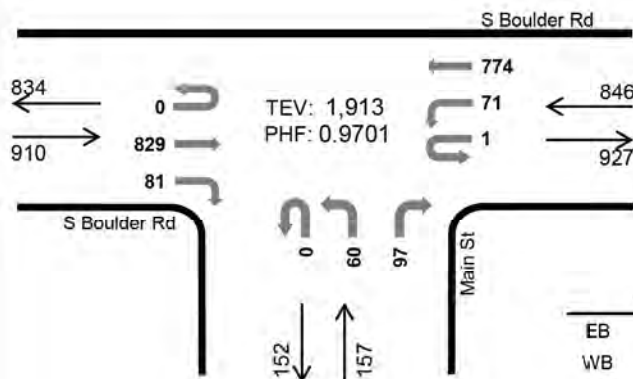


Peak Hour

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

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	
	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%	

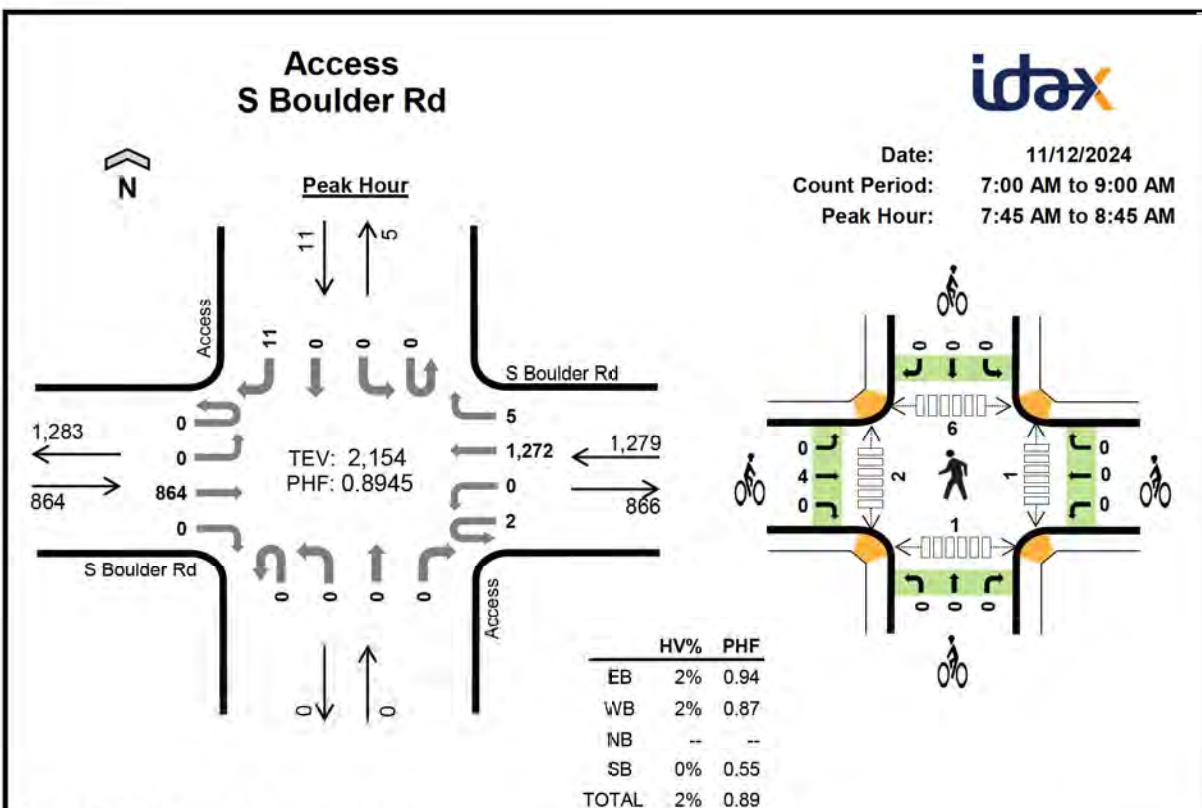
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:00 AM	0	4	1	0	5	0	0	0	0	0	4	0	2	0	6
11:15 AM	2	7	1	0	10	3	0	3	0	6	12	0	2	0	14
11:30 AM	3	0	1	0	4	0	3	0	0	3	4	0	3	1	8
11:45 AM	5	2	0	0	7	2	0	5	0	7	9	0	3	0	12
12:00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

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	

**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

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	11	2,154	
	HV	0	0	17	0	0	0	31	0	0	0	0	0	0	0	0	48	
	HV%	-	-	2%	-	0%	-	2%	0%	-	-	-	-	-	-	0%	2%	

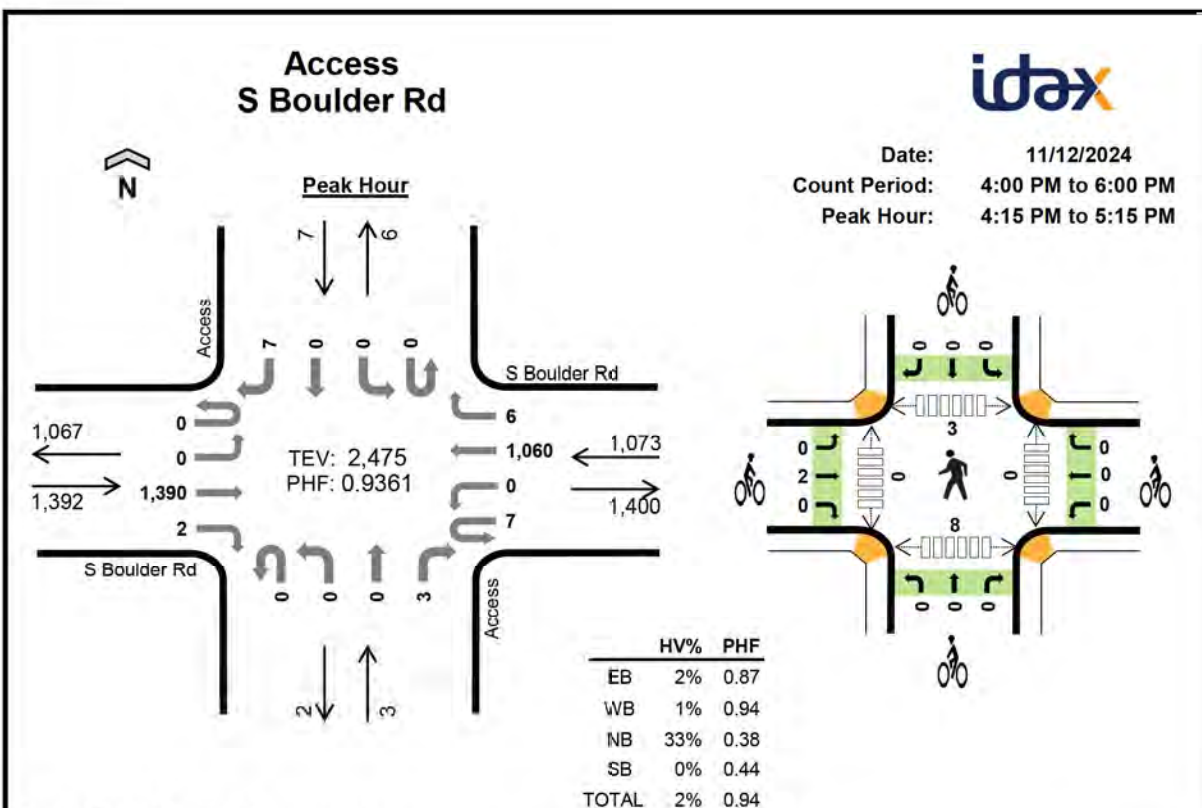
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	3	5	0	0	8	1	0	0	0	1	0	0	1	1	2
7:15 AM	2	9	0	0	11	1	0	0	0	1	0	0	1	0	1
7:30 AM	6	6	0	0	12	0	0	0	0	0	0	0	1	0	1
7:45 AM	5	8	0	0	13	0	0	0	0	0	0	0	1	0	1
8:00 AM	1	4	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

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	

**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

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	
	HV	0	0	34	0	0	0	9	0	0	0	1	0	0	0	0	44		
	HV%	-	-	2%	0%	0%	-	1%	0%	-	-	-	33%	-	-	-	0%	2%	

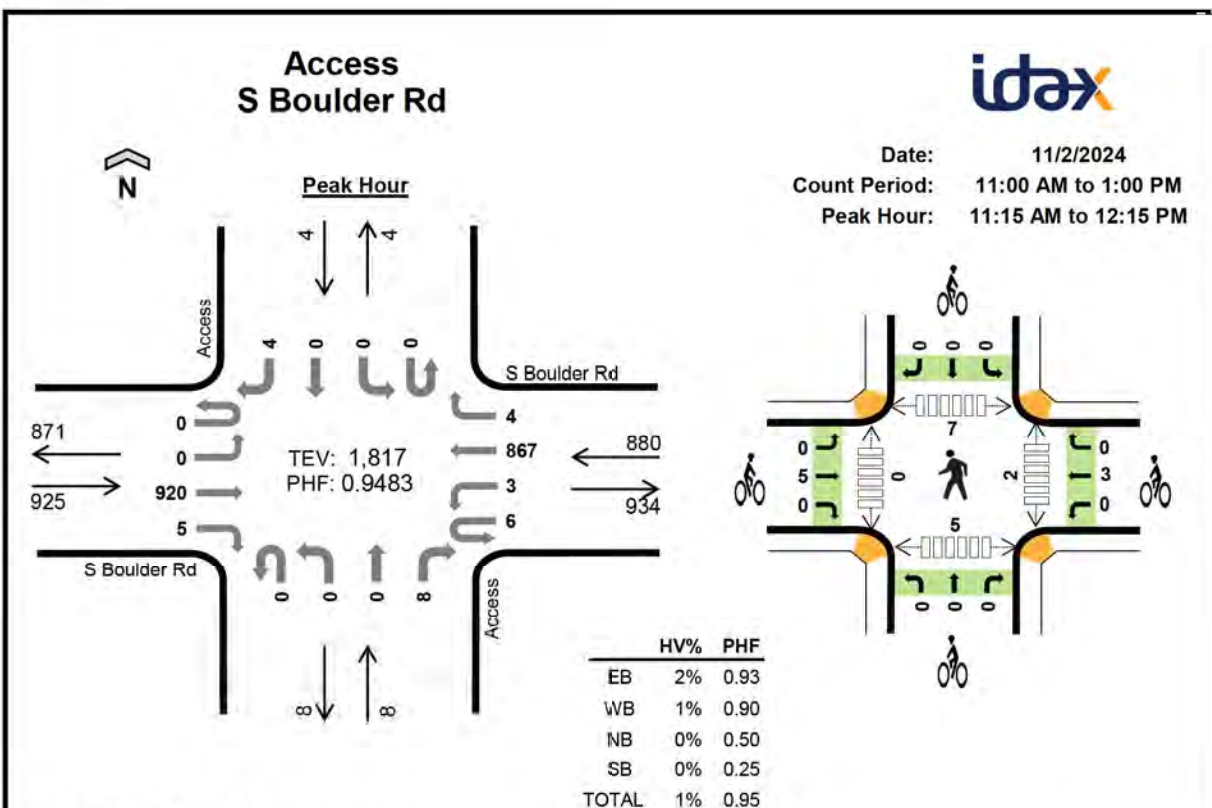
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	11	6	0	0	17	0	1	0	0	1	1	1	1	0	3
4:15 PM	16	1	0	0	17	1	0	0	0	1	0	0	1	3	4
4:30 PM	11	2	0	0	13	1	0	0	0	1	0	0	1	0	1
4:45 PM	5	1	0	0	6	0	0	0	0	0	0	0	1	0	1
5:00 PM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

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	

**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		
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					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	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

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	
	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%	

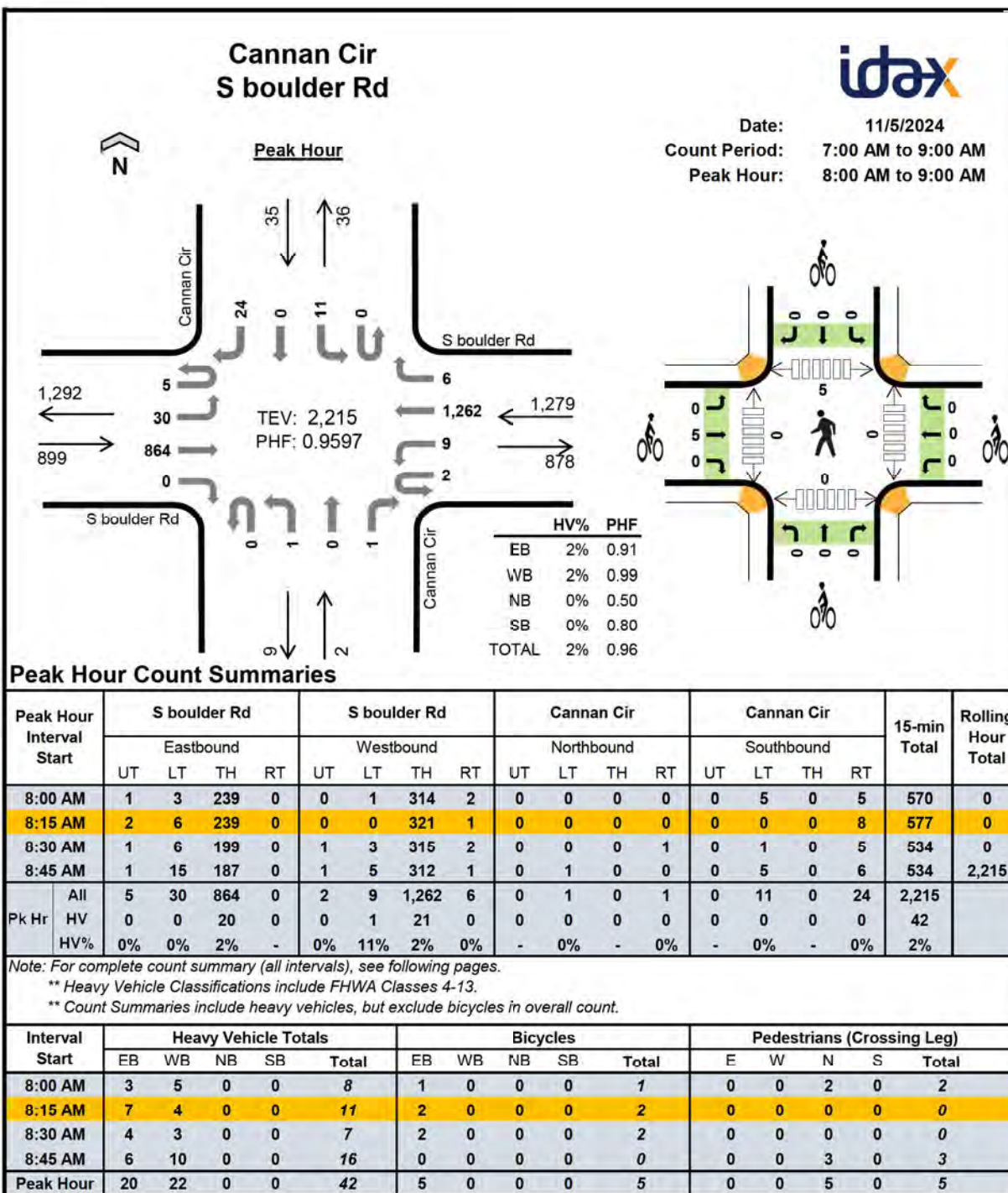
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:00 AM	1	4	0	0	5	0	0	0	0	0	0	0	1	0	1
11:15 AM	3	7	0	0	10	2	0	0	0	2	0	0	2	0	2
11:30 AM	4	0	0	0	4	0	3	0	0	3	0	0	0	2	2
11:45 AM	4	2	0	0	6	1	0	0	0	1	0	0	4	1	5
12:00 PM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

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	



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	
	HV	0	0	20	0	0	1	21	0	0	0	0	0	0	0	0	42		
	HV%	0%	0%	2%	-	0%	11%	2%	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

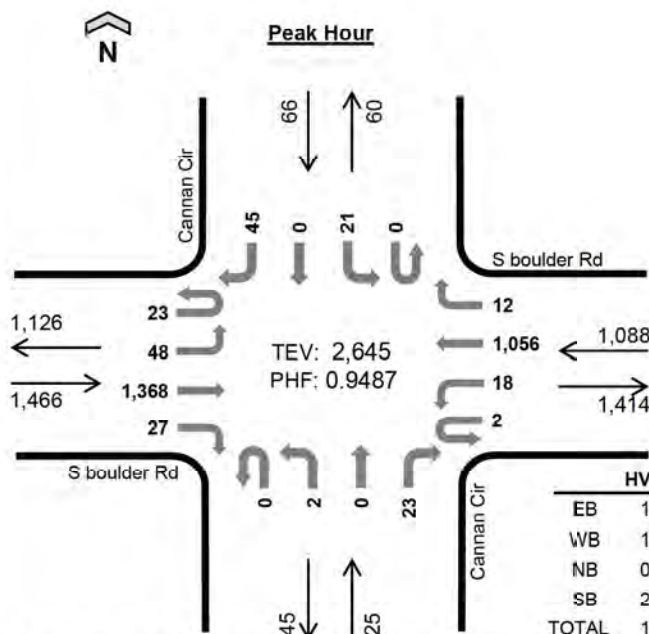
Count Summaries - Heavy Vehicles

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	

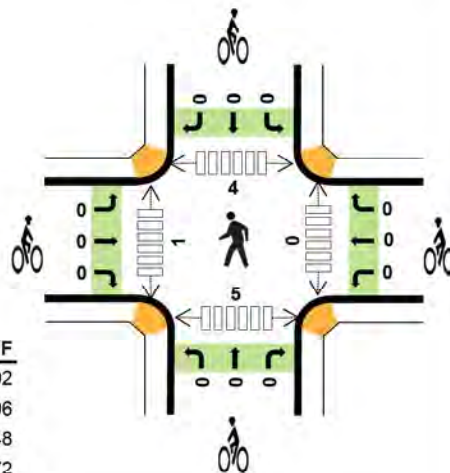
Count Summaries - Bikes

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	

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



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	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

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	
	HV	0	0	21	0	0	0	10	0	0	0	0	0	0	0	1	32		
	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

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	

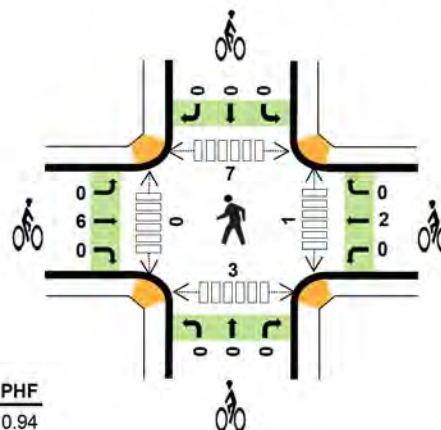
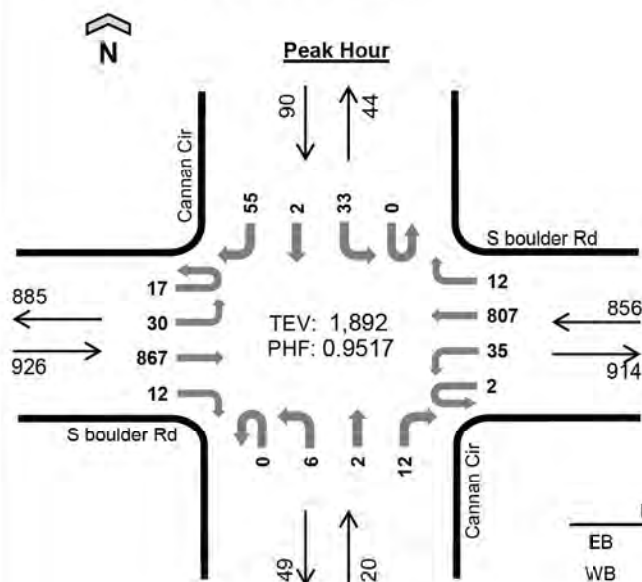
Cannan Cir S boulder Rd



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

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	
	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%	

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

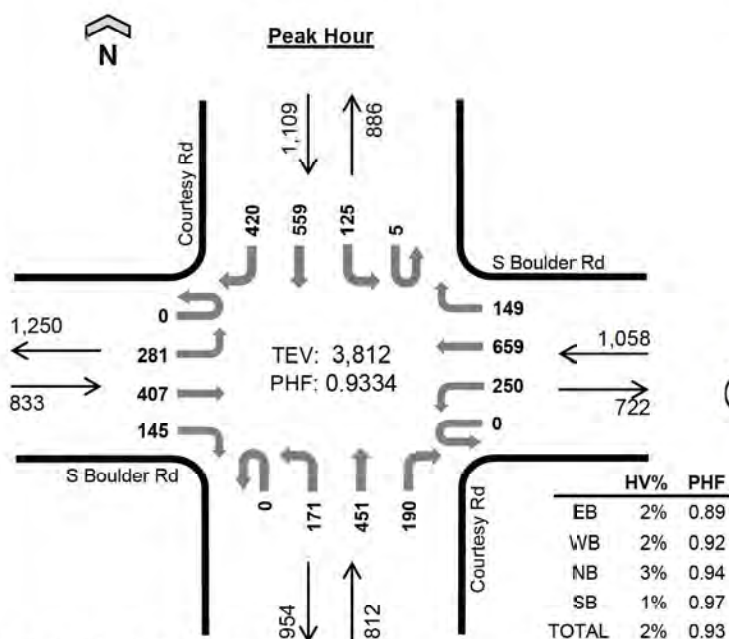
Count Summaries - Heavy Vehicles

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	

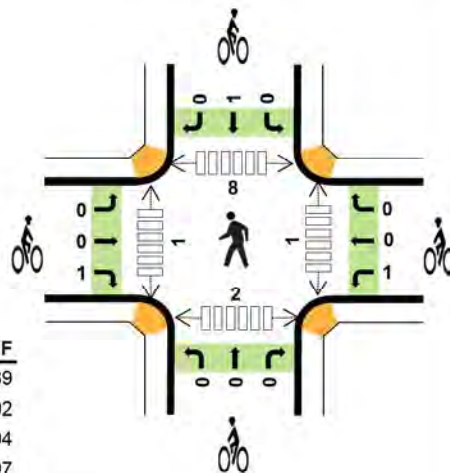
Count Summaries - Bikes

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	

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 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			
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					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	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

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	
	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%	

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

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	

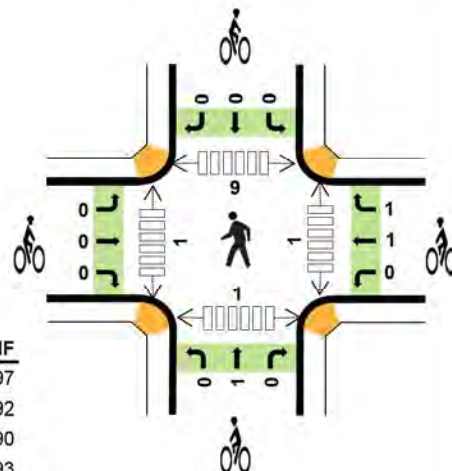
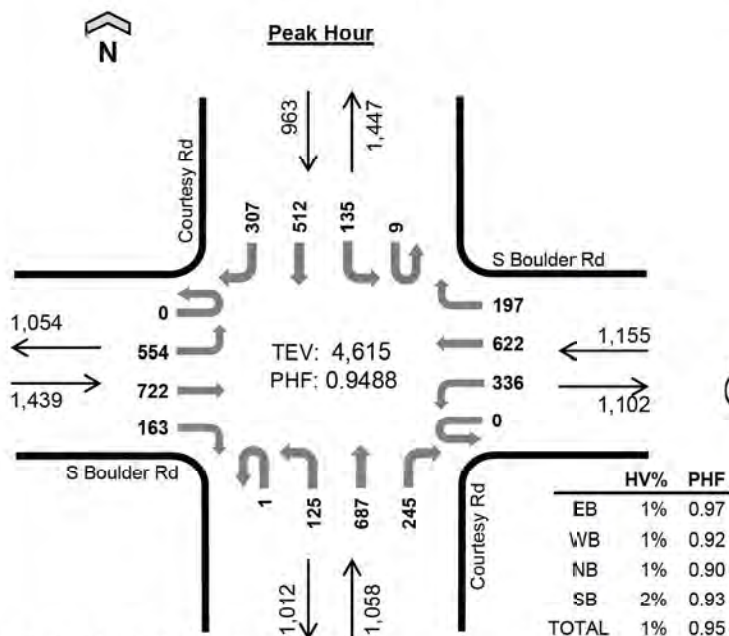
Courtesy Rd S Boulder Rd



Date: 11/5/2024

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



Peak Hour 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			
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					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
Peak Hour	18	8	15	17	58	0	2	1	0	3	1	1	9	1	12

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	
	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%	

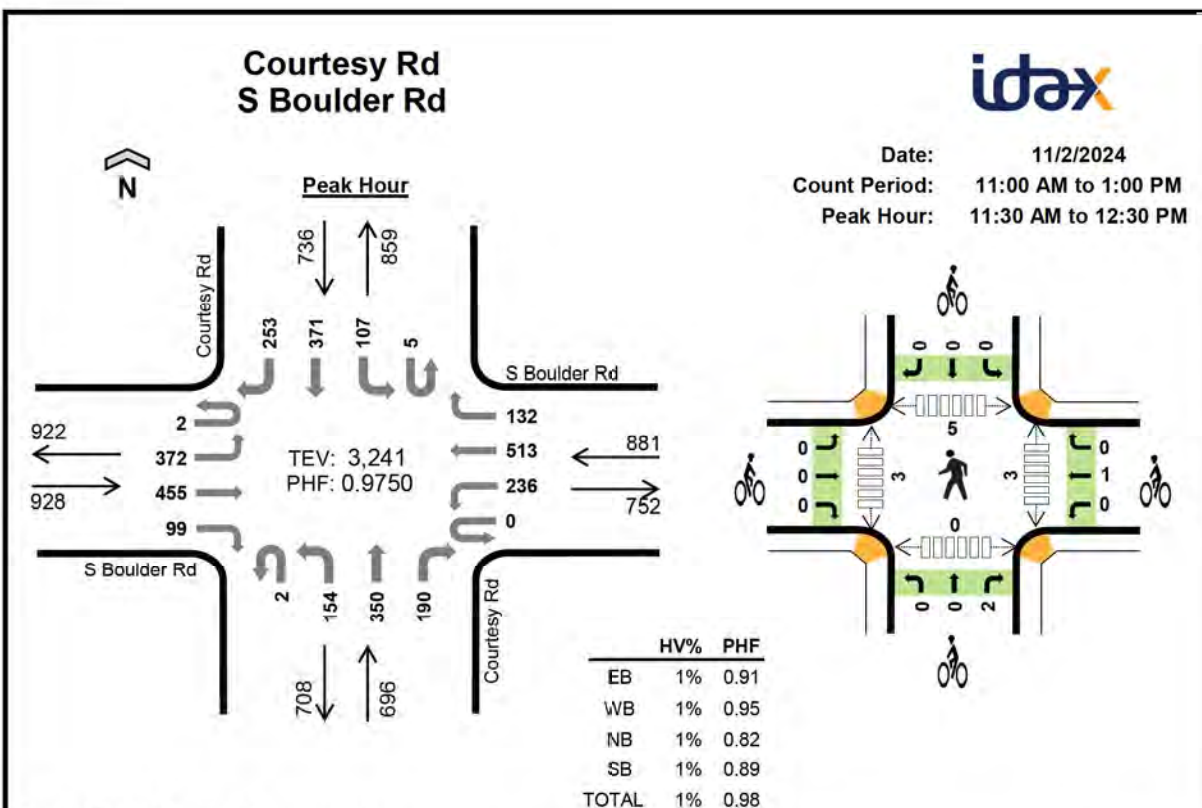
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	3	1	5	10	19	0	1	0	0	1	0	0	1	0	1
4:15 PM	5	1	4	4	14	0	0	0	0	0	0	0	2	0	2
4:30 PM	7	4	5	2	18	0	1	1	0	2	1	1	4	1	7
4:45 PM	3	2	1	1	7	0	0	0	0	0	0	0	2	0	2
5:00 PM	1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

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	0	1	1	2	0	1	2	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	



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

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	
	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%	

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	

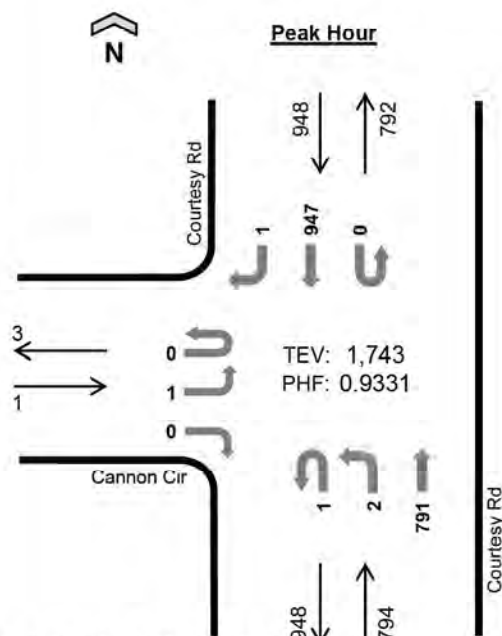
Count Summaries - Heavy Vehicles

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

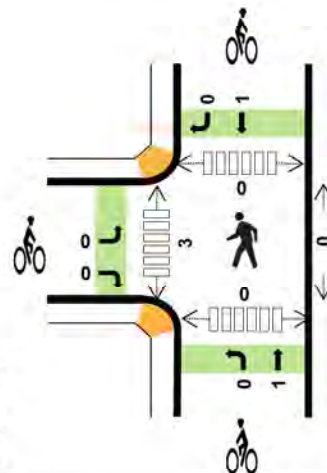
Interval Start	S Boulder Rd				S Boulder Rd				Courtesy Rd				Courtesy Rd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	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	

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

	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

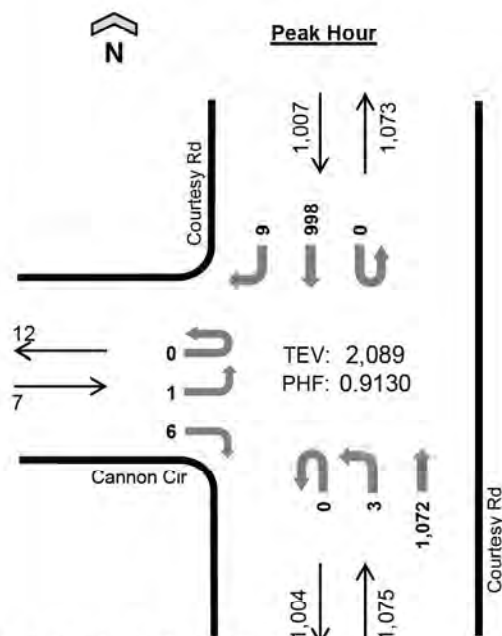
Count Summaries - All Vehicles

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	
	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%	

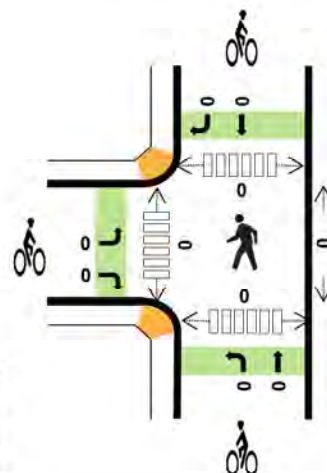
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	2	2	4	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	7	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

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	

Courtesy Rd Cannon Cir



	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

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	998	9	2,089	
	HV	0	0	0	0	0	0	0	0	0	0	15	0	0	15	0	30	
	HV%	-	0%	-	0%	-	-	-	-	-	0%	1%	-	-	-	2%	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	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

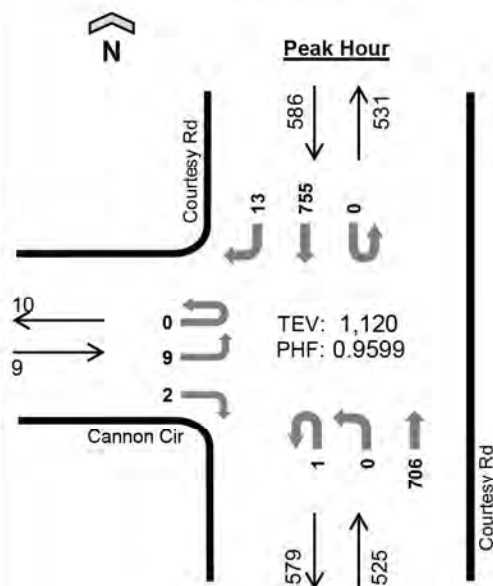
Count Summaries - Heavy Vehicles

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	

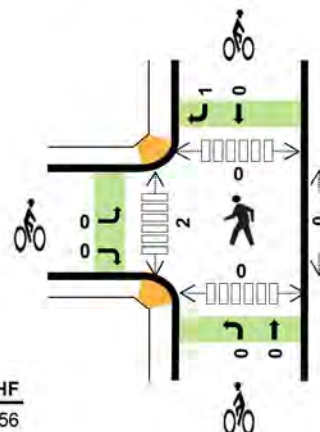
Count Summaries - Bikes

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		
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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

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	
	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%	

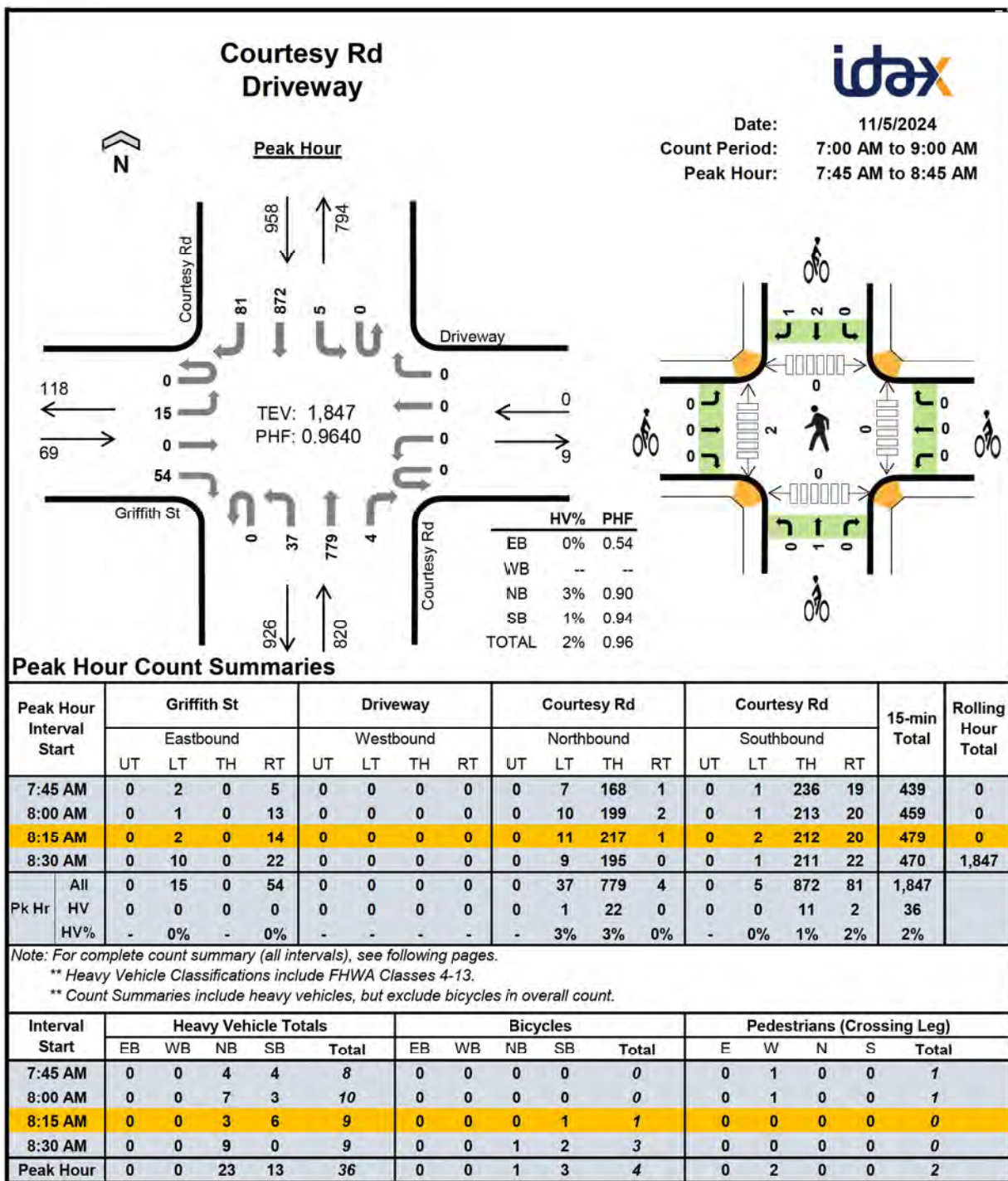
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:00 AM	0	0	0	1	1	0	0	0	0	0	0	4	0	0	4
11:15 AM	0	0	1	1	2	0	0	0	0	0	0	1	0	0	1
11:30 AM	0	0	1	1	2	0	0	2	0	2	0	1	0	0	1
11:45 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
12:00 PM	0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

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	0	1	0	1	0
11:15 AM	0	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	0	1	0	0	0	1	0	2	0
11:45 AM	0	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	0	1	0	0	0	2	0	3	9
12:15 PM	0	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	0	9
12:45 PM	0	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	0	8	0	0	0	9	0	17	
Pk Hr Heavy	0	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	0	2	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	0	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	0	2	0	0	0	0	3	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	



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	
	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%	

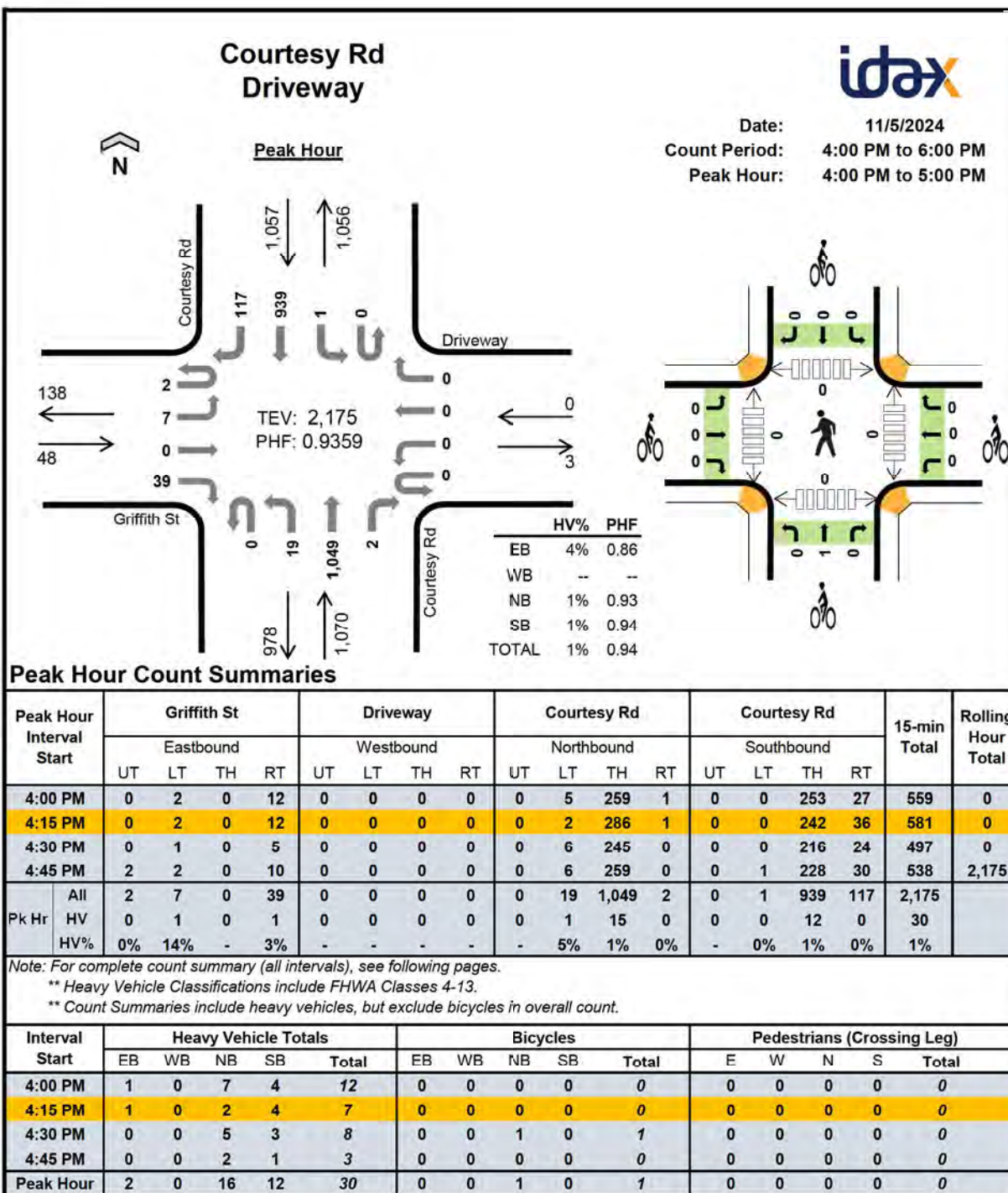
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	2	2	5	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	3	6	0	1	0	0	1	0	0	0	0	0
7:30 AM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	4	4	8	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	7	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

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	0	2	0	0	0	2	0	5	0
7:15 AM	0	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	0	4	0	0	0	3	0	7	0
7:45 AM	0	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	0	7	0	0	0	3	0	10	31
8:15 AM	0	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	0	9	0	0	0	0	0	9	36
8:45 AM	0	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	0	1	37	1	0	0	24	2	66	
Pk Hr Heavy	0	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	



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	
	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%	

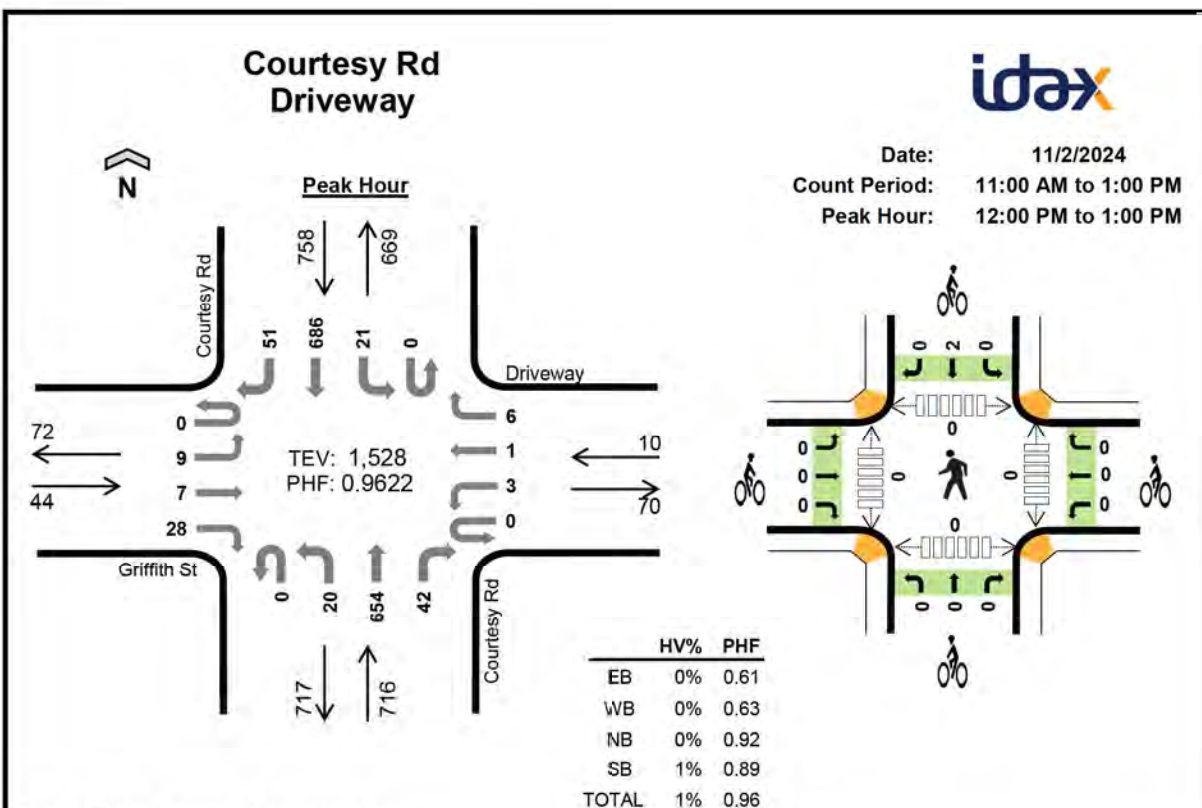
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	7	4	12	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	2	4	7	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	5	3	8	0	0	1	0	1	0	0	0	0	0
4:45 PM	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0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

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	0	1	17	0	0	0	24	0	44	
Pk Hr Heavy	0	1	0	1	0	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	0	1	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	0	1	0	0	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	0	1	0	0	1	0	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	

**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

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	
	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%	

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

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	

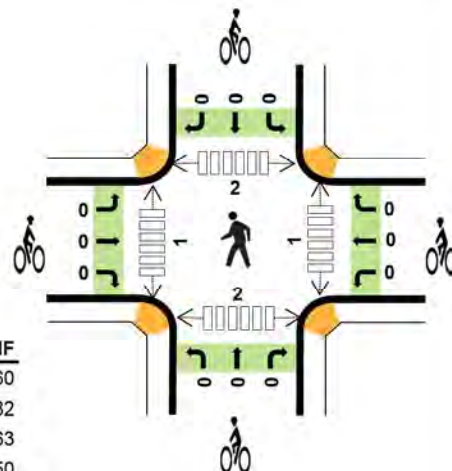
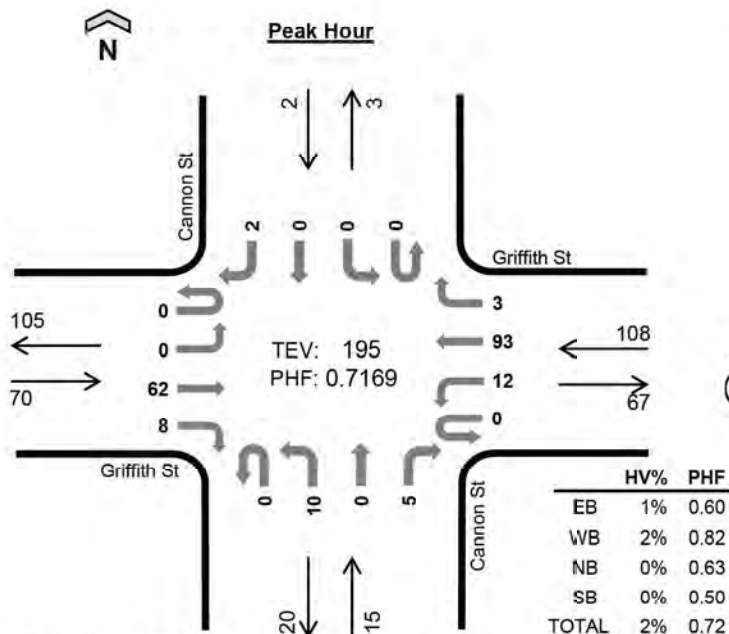
Count Summaries - Bikes

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	0	1	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	0	1	0	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	0	1	0	2
Count Total	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	0	
Pk Hr Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	

Date: 11/5/2024

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



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			
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					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	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

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		
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	
	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%	

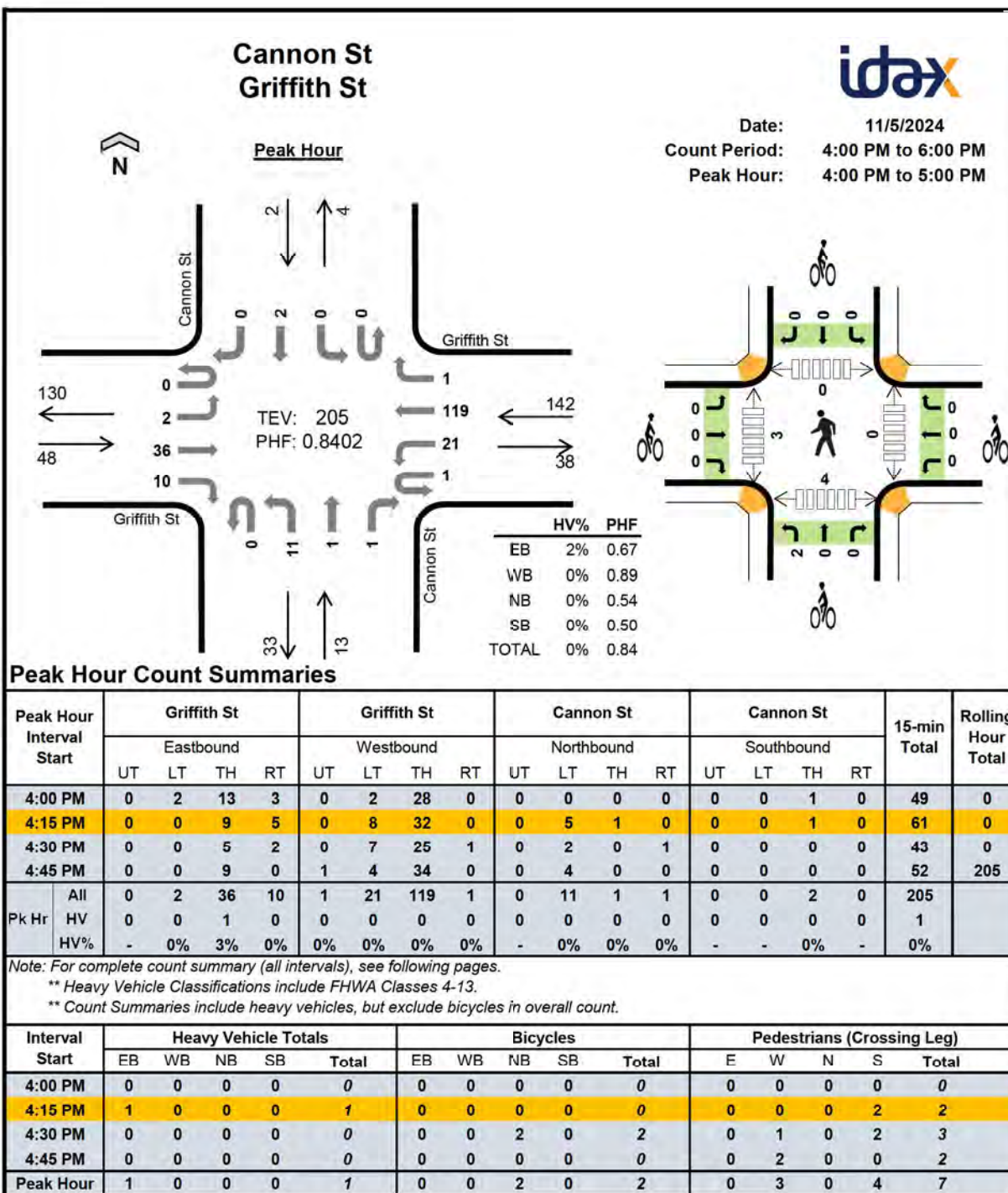
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2
8:00 AM	0	1	0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

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	



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	1	0	49	0	
4:15 PM		0	0	9	5	0	8	32	0	0	5	1	0	0	0	1	61	0	
4:30 PM		0	0	5	2	0	7	25	1	0	2	0	1	0	0	0	43	0	
4:45 PM		0	0	9	0	1	4	34	0	0	4	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	41	197	
5:15 PM		0	0	4	1	0	3	20	0	0	4	0	2	0	0	0	34	170	
5:30 PM		0	0	5	3	0	3	17	0	0	5	1	1	0	1	0	36	163	
5:45 PM		1	0	4	0	0	3	22	0	0	5	1	1	0	1	0	39	150	
Count Total		1	2	54	16	1	33	204	1	0	28	3	5	0	3	2	355		
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%	

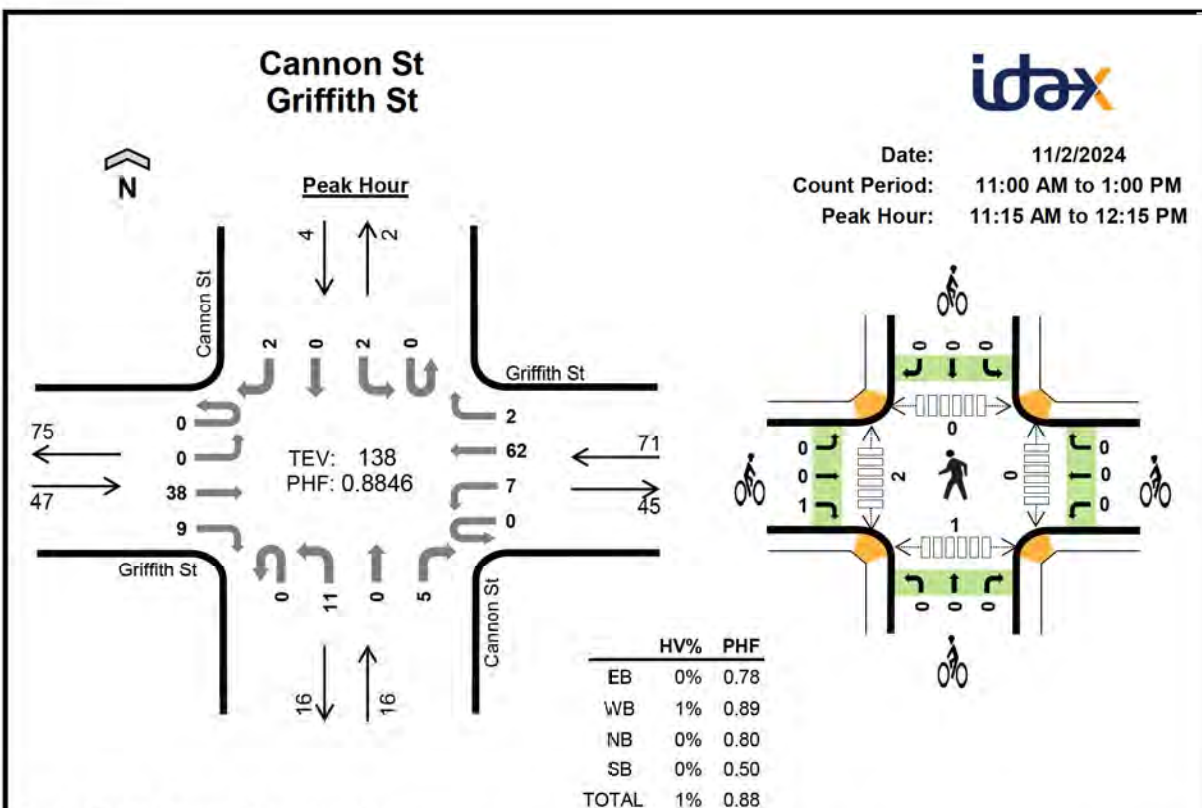
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	2	2
4:30 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	2	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	0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

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	



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

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	
	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%	

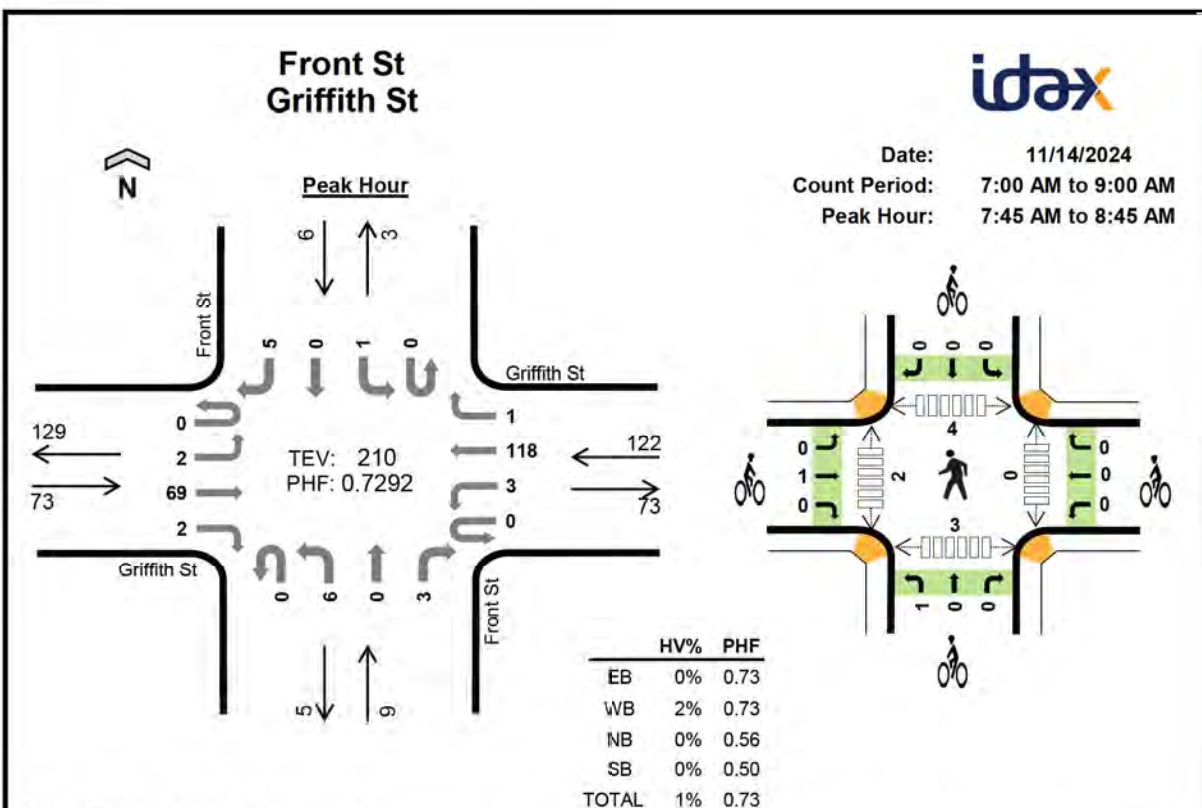
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:00 AM	0	0	0	0	0	0	0	1	0	1	0	2	1	0	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12:00 PM	0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

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	



Peak Hour Count Summaries

Peak Hour 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			
7:45 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					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	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

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	0	4	0	0	0	0	0	0	15	0
7:15 AM	0	0	6	0	0	0	5	0	0	0	3	0	1	0	0	0	0	15	0
7:30 AM	0	0	7	0	0	0	15	0	0	0	5	0	0	0	0	0	1	28	0
7:45 AM	0	1	15	0	0	1	25	0	0	0	3	0	1	0	0	0	0	46	104
8:00 AM	0	0	15	0	0	1	20	0	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	0	1	0	0	0	0	51	166
8:30 AM	0	1	23	1	0	1	41	0	0	0	2	0	0	0	1	0	2	72	210
8:45 AM	0	0	9	0	0	0	15	0	0	0	5	0	0	0	0	0	0	29	193
Count Total	0	2	98	2	0	3	157	1	0	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	
	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%	

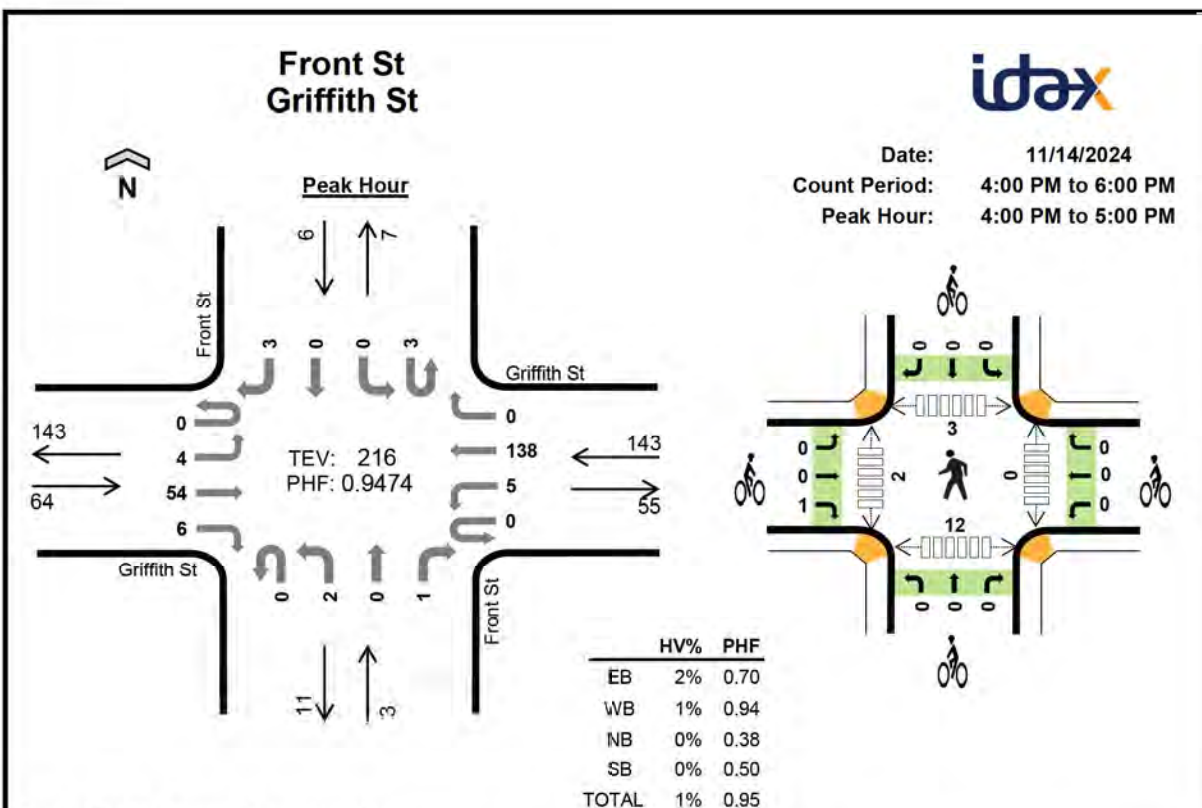
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2
8:00 AM	0	1	0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

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	0	1	0	0	0	0	0	2	
Pk Hr Bike	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	



Peak Hour Count Summaries

Peak Hour 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
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					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
Peak Hour	1	1	0	0	2	1	0	0	0	1	0	2	3	12	17

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	
	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%	

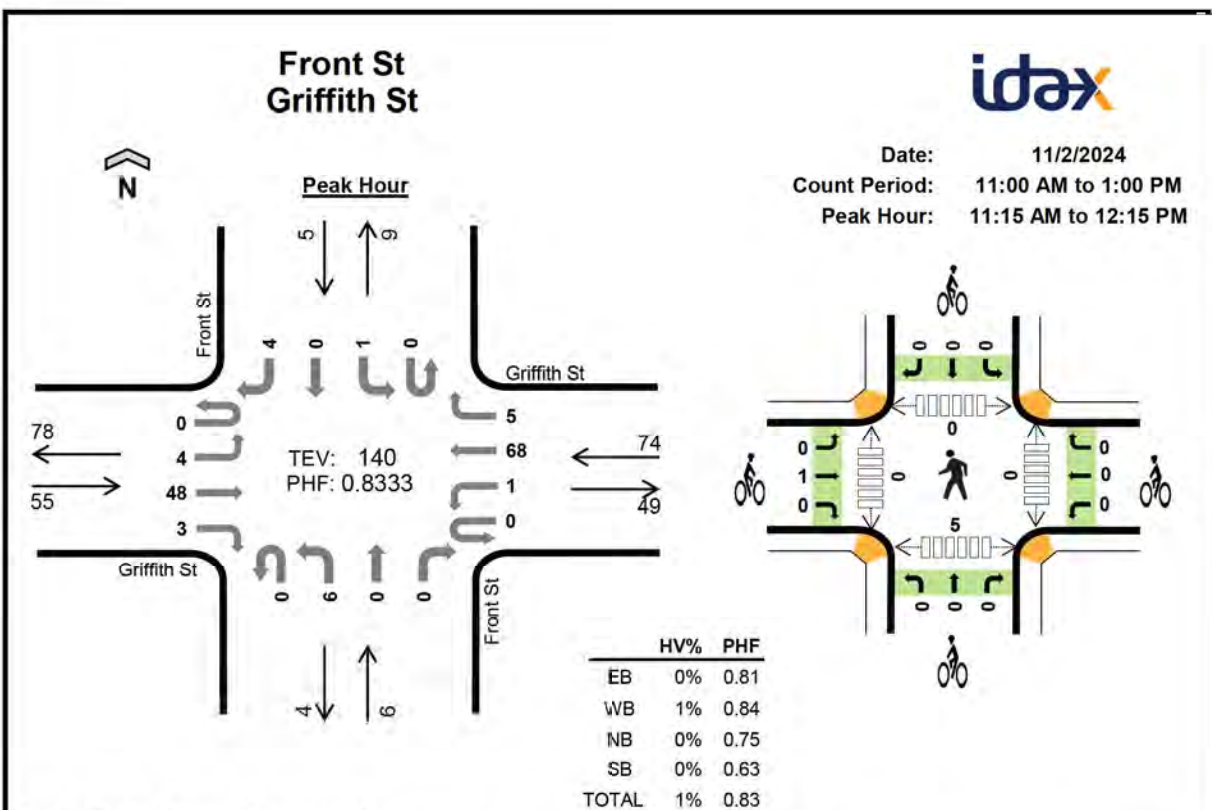
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	3	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	4	7
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	5	7
5:00 PM	1	0	0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

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	0	1	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	0	1	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	

**Peak Hour Count Summaries**

Peak Hour 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			
11:15 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

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	
	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%	

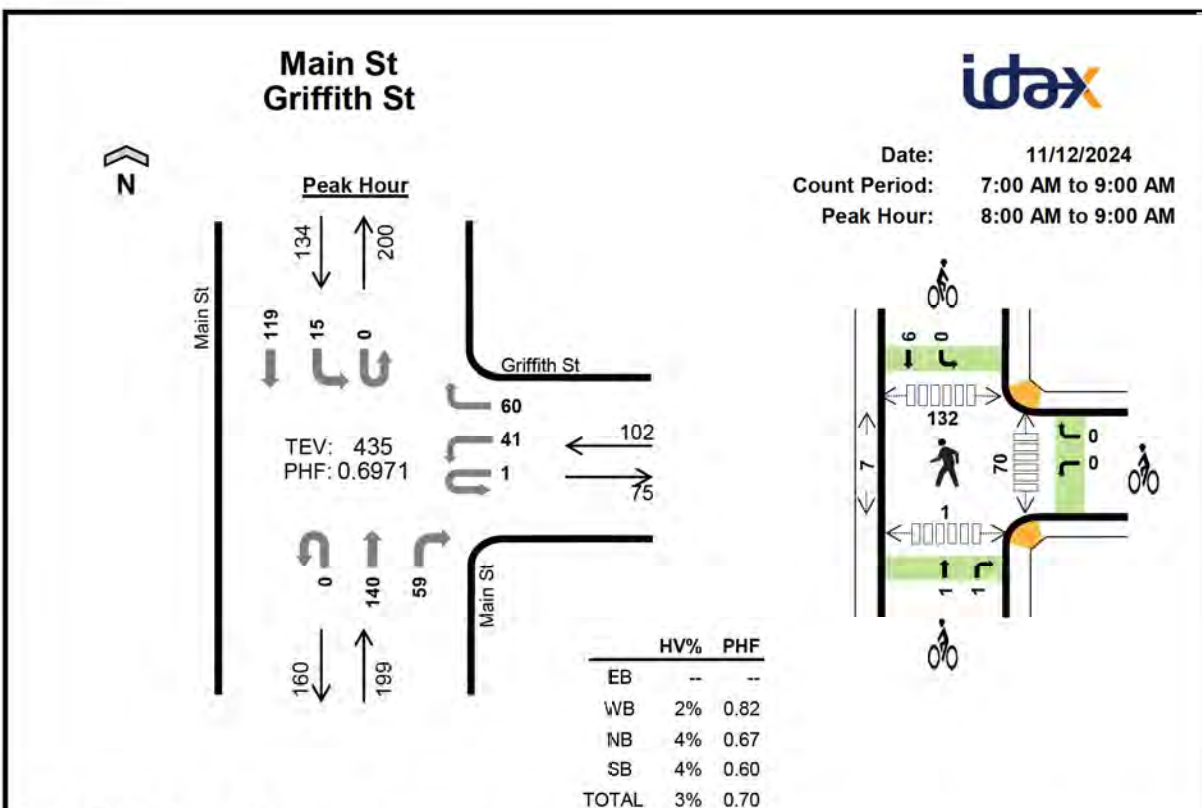
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0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

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	



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

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	
	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%	

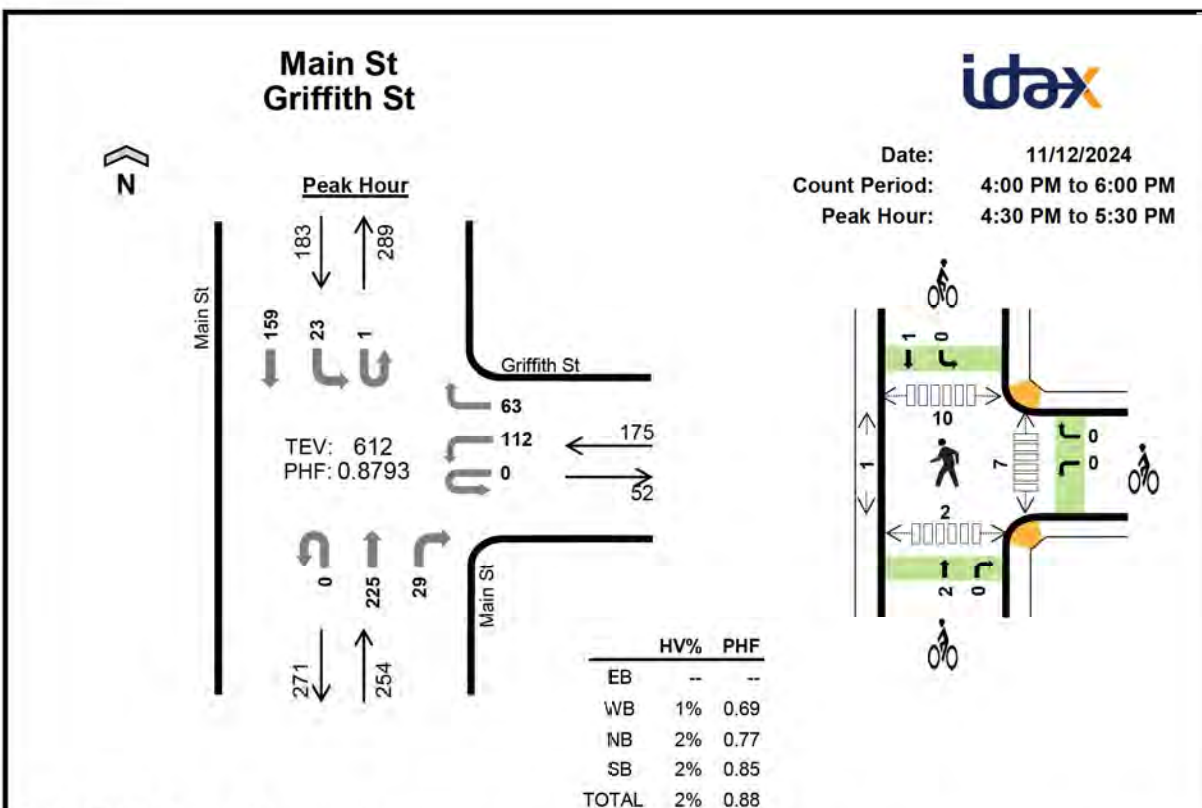
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	1	0	1	0	0	2	1	3	0	0	0	0	0
7:15 AM	0	0	0	1	1	0	0	0	0	0	1	1	1	0	3
7:30 AM	0	0	1	1	2	0	1	0	2	3	4	3	2	2	11
7:45 AM	0	1	0	1	2	0	1	0	2	3	0	1	0	0	1
8:00 AM	0	0	0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

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	

**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

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	
	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%	

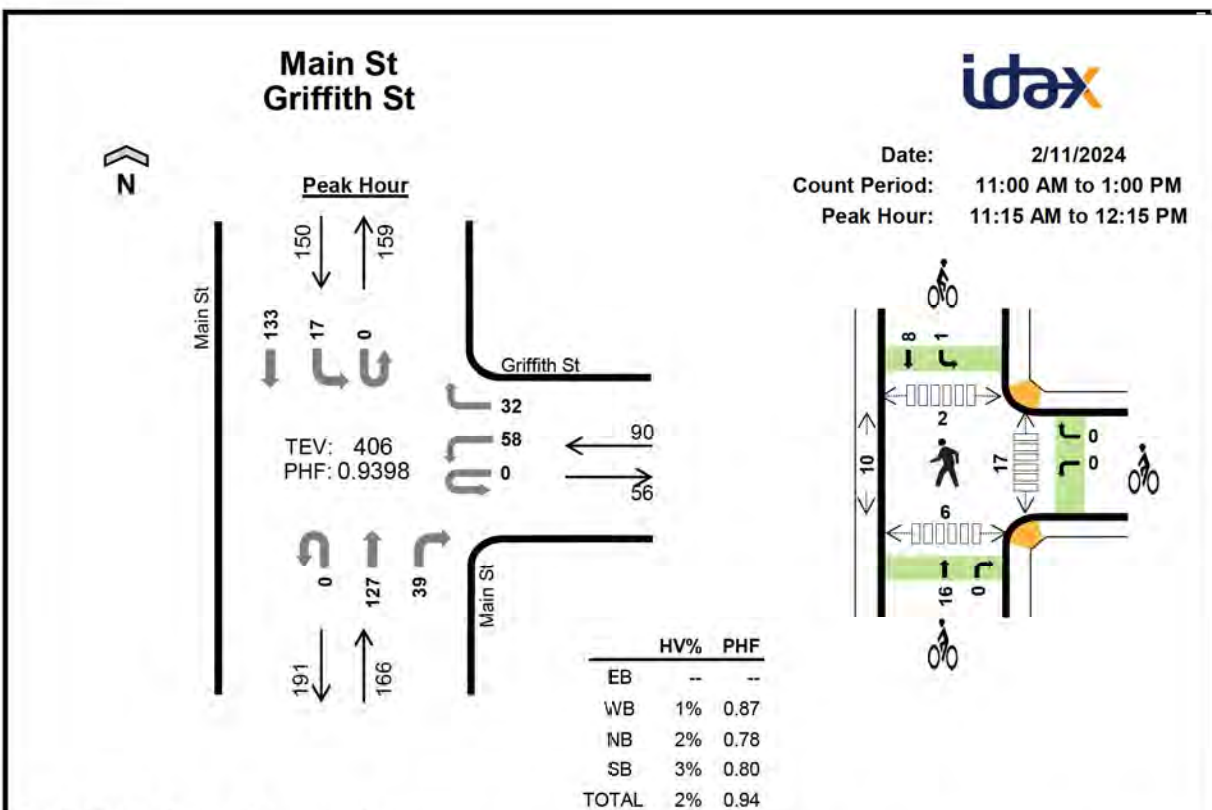
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	1	3	0	4	0	0	3	3	6	0	1	1	3	5
4:15 PM	0	0	2	1	3	0	0	1	0	1	1	1	3	0	5
4:30 PM	0	0	2	1	3	0	0	1	0	1	0	0	1	0	1
4:45 PM	0	0	1	1	2	0	0	1	1	2	4	1	5	0	10
5:00 PM	0	1	1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

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	



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

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	
	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%	

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

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	

Appendix D: Background Growth Rate Calculations per DRCOG

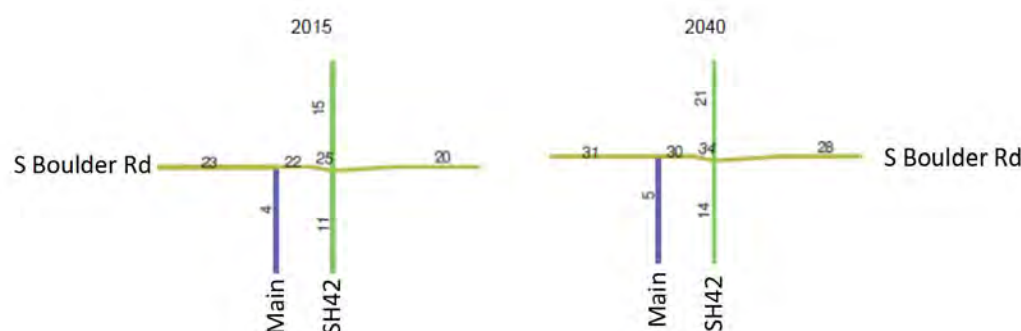
Traffic Growth Rates

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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: Avg Weekday

Exit to External
330

338
Enter from External

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

Empanada Shop
(Derived Rate Eq.)
ITE LU Code
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

19
Enter from External

Demand Balanced Demand

9% 3 3 38% 231

Demand Balanced Demand

11% 3 3 33% 201

LAND USE C

#220 Multifamily
Housing
ITE LU Code
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

571
Enter from External

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%



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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: AM Peak

Exit to External

44

Enter from External

45

29% 14

Demand

0

Balanced

31% 0

Demand

31% 15

Demand

0

Balanced

29% 0

Demand

7% 3

Demand

3

Balanced

5% 2

Demand

2

Balanced

34% 23

Demand

LAND USE B

Empanada Shop
(Derived Rate Eq.)
ITE LU Code
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

Enter from External

1

Demand Balanced Demand

5% 0

0

0

34% 23

Demand

7% 0

0

0

37% 8

Demand

LAND USE C

#220 Multifamily
Housing
ITE LU Code
Size 188 DU

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

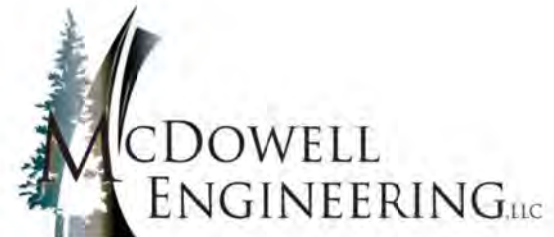
Exit to External

19

Enter from External

65

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%



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

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%	

Name of Dvlpt.: Coal Creek Station

Time Period: PM Peak

Exit to External

68

Enter from External

83

20%

16

Demand

1

Balanced

20%

1

Demand

20%

18

Demand

12%

9

Demand

1

Balanced

20%

1

Demand

9

Balanced

31%

21

Demand

9%

8

Demand

8

Balanced

53%

22

Demand

LAND USE B

Empanada Shop (Derived Rate Eq.)				
ITE LU Code				
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

Enter from External

2

Demand

9%

0

0

0

0

0

Demand

12%

0

0

0

0

Demand

53%

22

21

21

LAND USE C

#220 Multifamily Housing				
ITE LU Code				
Size 188 DU				
	Total	Internal	External	
Enter	67	10	57	
Exit	41	9	32	
Total	108	19	89	
%	100%	18%	82%	

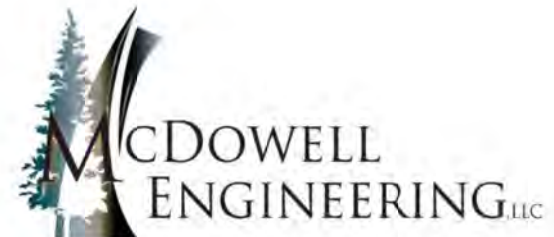
Exit to External

57

Enter from External

32

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%



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

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%

Name of Dvlpt.: Coal Creek Station

Time Period: SAT Peak

Exit to External

36

Enter from External

38

20% 8

Demand

1

Balanced

20% 1

Demand

20% 9 12% 5

Demand

1

Balanced

20% 1

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

Enter from External

5

Demand Balanced Demand

9% 1 1 53% 19

Demand Balanced Demand

12% 1 1 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%

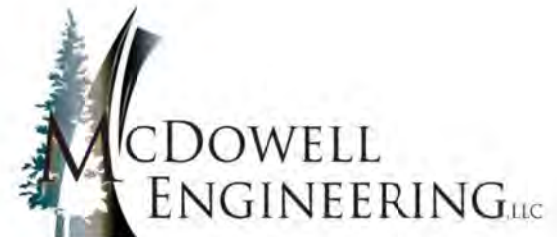
Exit to External

31

Enter from External

31

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
				17.5%



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	0
1	2	6	5	8	7	11	12	15	16	0	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	0
2	2	5	6	8	7	11	12	15	16	0	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	0
3	2	5	6	7	8	11	12	15	16	0	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	0
4	2	5	6	7	8	11	12	15	16	0	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	0
5	2	6	5	7	8	12	11	15	16	0	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	0
6	2	6	5	7	8	12	11	15	16	0	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	0
7	2	6	5	7	8	12	11	15	16	0	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	0
8	2	6	5	7	8	12	11	15	16	0	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	0
9	2	5	6	8	7	11	12	16	15	0	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	0
10	2	5	6	8	7	11	12	16	15	0	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	0
11	2	5	6	8	7	11	12	16	15	0	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	0
12	2	5	6	8	7	11	12	16	15	0	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	0
13	2	6	5	8	7	12	11	16	15	0	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	0
14	2	6	5	8	7	12	11	16	15	0	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	0
15	2	6	5	8	7	12	11	16	15	0	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	0
16	2	6	5	8	7	12	11	16	15	0	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	Exclusive Ped(MM)1-2	Backup Prevent(MM)1-1-3 Phase Timing Phase Backup	Simultaneous Gap(MM)1-1-4 Must Gap with Phase 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

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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: 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

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Configuration Communications

Ethernet Port Configuration (MM)1-5-1 NTCIP Parameters (MM)1-5-5

Controller IP: 172.16.10.111 Backup Time: 0
 Subnet Mask: 255.255.252.0 UDP Port: 501
 Default Gateway IP: 172.16.11.254 Ethernet Priority: 1
 Server IP: 172.16.50.1 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	Modem Setup	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

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Configuration Logging/Display

Enable Event Logs (MM)1-6-1		Alarm Logs (MM)1-6-1
Critical RFE's:	Yes	Enabled:
3 Critical RFE's in 24 Hours:	Yes	12345678910111213141516
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	

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

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Logic Processor Page 2

Logic Statements (MM)1-8-2

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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	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

Overlap	Type	Vehicle Overlaps (MM)2-2				Phases			
		Lag Green	Yellow	Red	Advance Green				
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

Louisville - HWY42 & S Boulder Rd

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 Ovr: No
 Fo Add Ini Green: No
 Re-sync Count: 0
 Multisync: No

Split Demand (MM)3-5

Demand	Demand
1	2
Phase	Phase

Demand	Detector	Call Time	Cycle Count
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Auto Perm Minimum Green (Seconds) (MM)3-4

Phase	Min Green
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Louisville - HWY42 & S Boulder Rd

Coordination Pattern Data

Pattern	Split Pattern	TS2	Cycle	Pattern Data (MM)3-2		Splits In	Offsets In	Actuated Coord
				Std(COS)	Offset Value			
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
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Special Functions

Pattern	Function Output
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Split Pattern Data (MM)3-3

Coord Phases			Split/Modes													
Split Pattern	Phase	Split	Split Pattern	Mode	Phase											
1	1	20	1	Coord	X	X										
1	2	41	1	Vehicle Recall	X											
1	3	16	2	Coord	X	X										
1	4	43	2	Vehicle Recall	X											
1	5	20	3	Coord	X	X										
1	6	41	3	Vehicle Recall	X											
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														

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	Phase	Preempt Phases							Special Function
		Track Clear Veh	Dwell Veh	Dwell Ped	Cycling Veh	Cycling Ped	Exit Phase	Exit Calls	
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	Overlap	Preempt Overlaps			
		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	AM Peak = Action Plan 1
1	2	2	9:30 AM	
1	3	3	3:00 PM	PM Peak = Action Plan 3
1	4	2	7:30 PM	
2	1	2	8:00 AM	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

Louisville - HWY42 & S Boulder Rd

Time Base Exceptions

Day	Fixed/Float	Exception Day Program (MM)5-5			
		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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Louisville - HWY42 & S Boulder Rd

Detectors**Detectors Page 2**

Log - Speed Detector Setup (MM)6-5

NTCIP Log ECPI Log Period: Length Unit:
 Period: 60 TBAP 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 Diagnostics (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

Louisville - S Boulder Rd & Main

Configuration Phase Sequence Page 2

In Use(MM)1- 2	Exclusive Ped(MM)1-2 Phase	Backup Prevent(MM)1-1-3 Phase Timing Phase Backup	Simultaneous Gap(MM)1-1-4 Must Gap with Phase 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 NTCIP Parameters (MM)1-5-5

Controller IP:172.16.10.113Backup Time:0

Subnet Mask:255.255.252.0UDP Port:501

Default Gateway IP:172.16.11.254Ethernet Priority:1

Server IP:172.16.50.1Port 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
-----------------------	--------

Louisville - S Boulder Rd & Main

Configuration Logging/Display

Enable Event Logs (MM)1-6-1		Alarm Logs (MM)1-6-1
Critical RFE's:	Yes	Enabled:
3 Critical RFE's in 24 Hours:	Yes	12345678910111213141516
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	

Display Options (MM)1-7-2
Key Click Enable: Yes
Backlight Enable: Yes

Louisville - S Boulder Rd & Main

Logic Processor Page 1
Statement Control (MM)1-8-1

LP	Statement Control
2	E
3	E
4	E

Louisville - S Boulder Rd & Main

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		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

Louisville - S Boulder Rd & Main

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 Ovr: No
 Fo Add Ini Green: No
 Re-sync Count: 0
 Multisync: No

Split Demand (MM)3-5

Demand	Demand
1	2
Phase	Phase

Demand	Detector	Call Time	Cycle Count
--------	----------	-----------	-------------

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

Phase	Min Green
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Louisville - S Boulder Rd & Main

Coordination Pattern Data

Pattern	Split Pattern	TS2	Cycle	Pattern Data (MM)3-2		Splits In	Offsets In	Actuated Coord
				Std(COS)	Offset Value			
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
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Special Functions

Pattern	Function Output
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Split Pattern Data (MM)3-3

Coord Phases			Split/Modes													
Split Pattern	Phase	Split	Split Pattern	Mode	Phase											
1	1	14	1	Coord	1	2	3	4	5	6	7	8	9	10	11	12
1	2	67	1	Vehicle Recall	X	X				X						
1	4	39	1	Vehicle Recall	X	X				X						
1	5	14	2	Coord	X					X						
1	6	67	2	Vehicle Recall	X	X				X						
1	7	18	2	Vehicle Recall	X	X				X						
1	8	21	3	Coord	X					X						
2	1	12	3	Vehicle Recall	X	X				X						
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														

AM

Saturday

PM

Louisville - S Boulder Rd & Main

Preemptor Preempt Plan (MM)4-1

Preempt	Phase	Preempt Phases							Special Function
		Track Clear Veh	Dwell Veh	Dwell Ped	Cycling Veh	Cycling Ped	Exit Phase	Exit Calls	
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	Overlap	Preempt Overlaps			
		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

Day	Fixed/Float	Exception Day Program (MM)5-5			
		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
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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**Detectors Page 2**

Log - Speed Detector Setup (MM)6-5

NTCIP Log ECPI Log Period: Length Unit:
 Period: 60 TBAP 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
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1	25	0	0	0	1	255	0
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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
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1	35	0	0	0	1	255	0
1	36	0	0	0	1	255	0
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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
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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
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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
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2	44	0	0	0	1	255	0
2	45	0	0	0	1	255	0
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3	16	0	0	0	1	255	0
3	17	0	0	0	1	255	0
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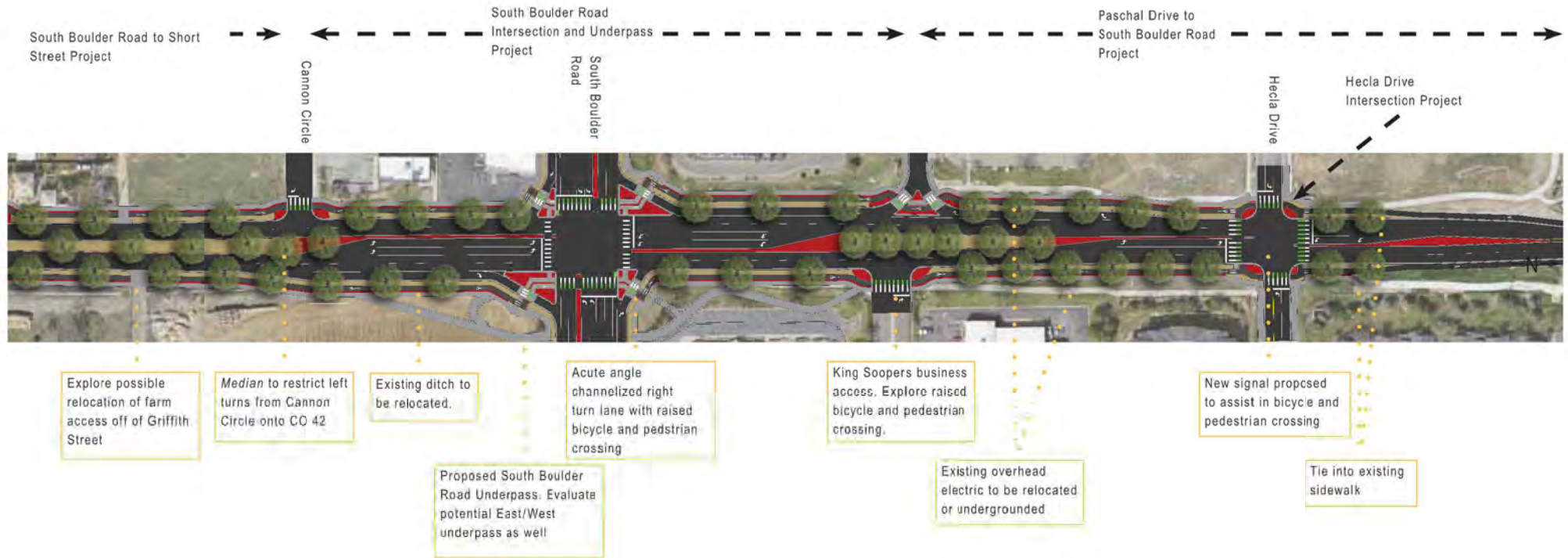
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4	18	0	0	0	1	255	0
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4	21	0	0	0	1	255	0
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4	29	0	0	0	1	255	0
4	30	0	0	0	1	255	0
4	31	0	0	0	1	255	0
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4	33	0	0	0	1	255	0
4	34	0	0	0	1	255	0
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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
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4	50	0	0	0	1	255	0
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4	52	0	0	0	1	255	0
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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 Diagnostics (MM)6-7

Plan	Detector	Counts	Act	Pres	Multiplier
------	----------	--------	-----	------	------------

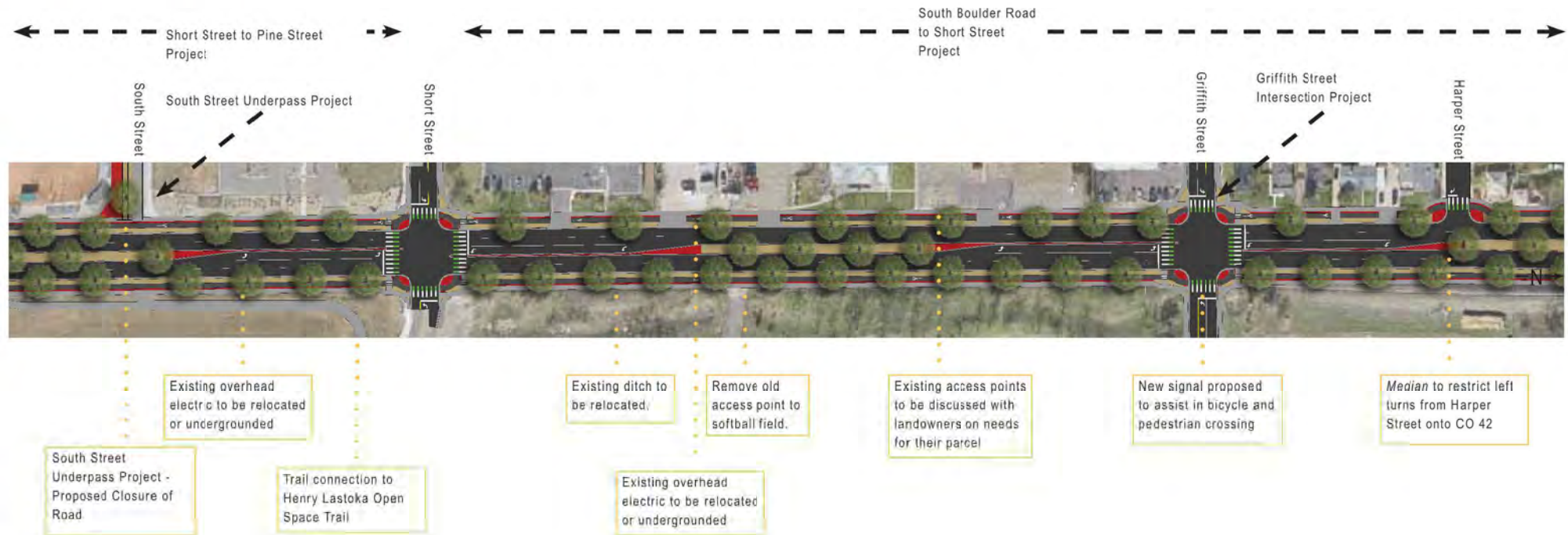
**Appendix G: *Future 42* Excerpt of Preferred South Boulder
Road and SH 42 Design**



Notes for this section:

- South Boulder Road Underpass concept from Summer 2021 is proposed in this section. Explore possibility 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.

Implementation

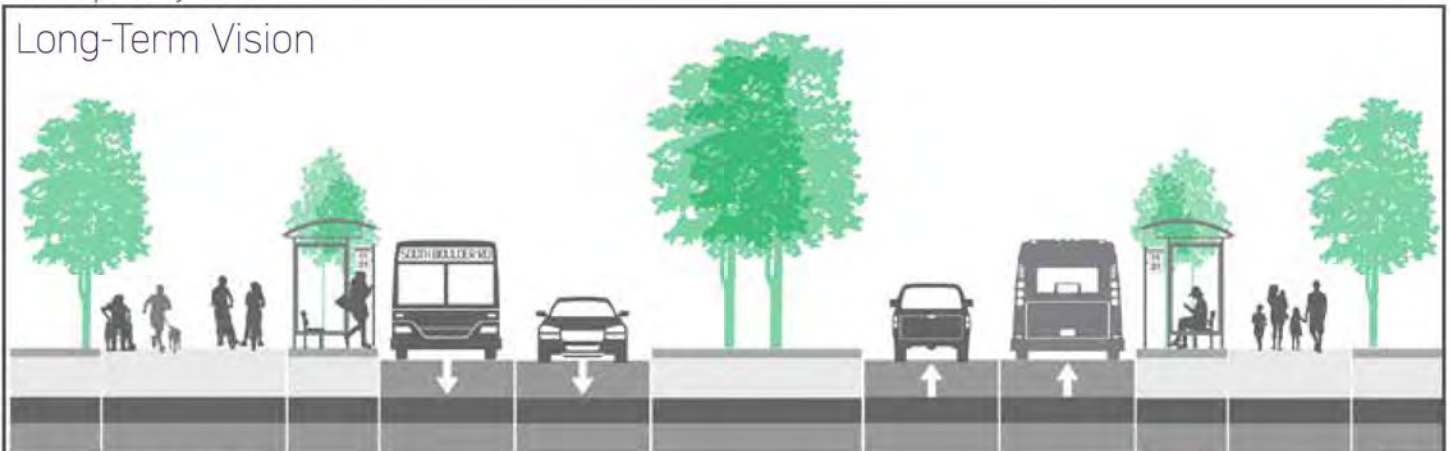
The City should partner with Lafayette, Boulder County and City of Boulder on a regional study that focuses on how to prioritize transit in the corridor. The study should also focus on preferred allocation of the right-of-way and regional consistency along the corridor for all modes of travel. Funding 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.

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.

Long-Term Vision

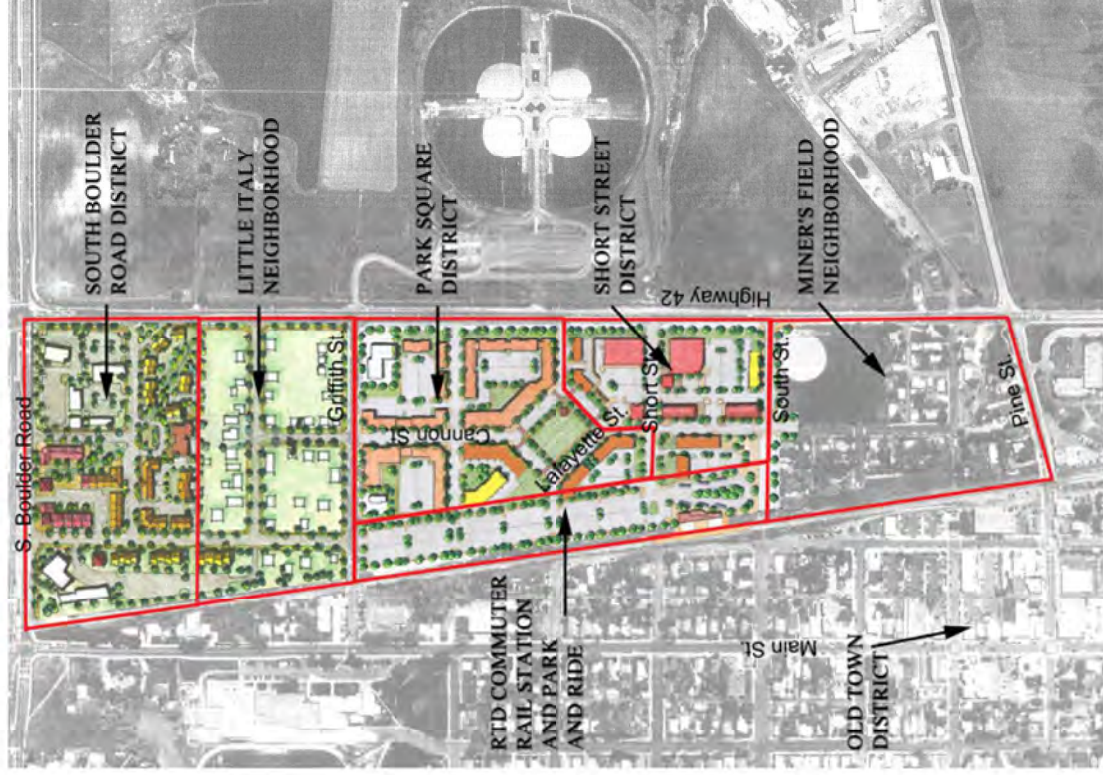


Appendix J: *Louisville South Boulder Road Connectivity Plan*
Excerpt of South Boulder Road and Main StreetFuture
Pedestrian Underpass



Figure 2: Main Street Undercrossing Plan Rendering

Appendix K: The Highway 42 Revitalization Area Framework Plan Excerpt of Framework Plan



III. The Framework Plan

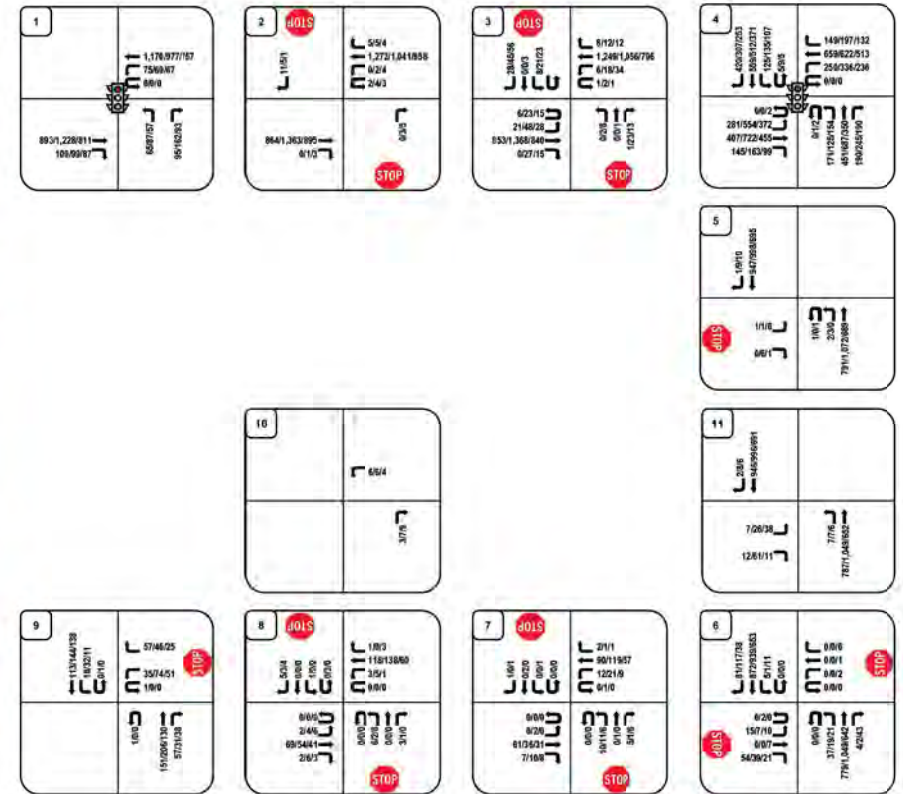
Appendix L: 42 Gateway Alternative Analysis Report
Excerpt of Future Roadway Network

Figure 9. Future Roadway Network



Appendix M: Additional Figures

Figure AP01: Year 2024 Existing Traffic



Coal Creek Station
Louisville, CO

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



Project Number M1663
Prepared By GWS
4/23/2025

Figure AP02: Year 2026 Background Traffic (DeLo Boom Development)

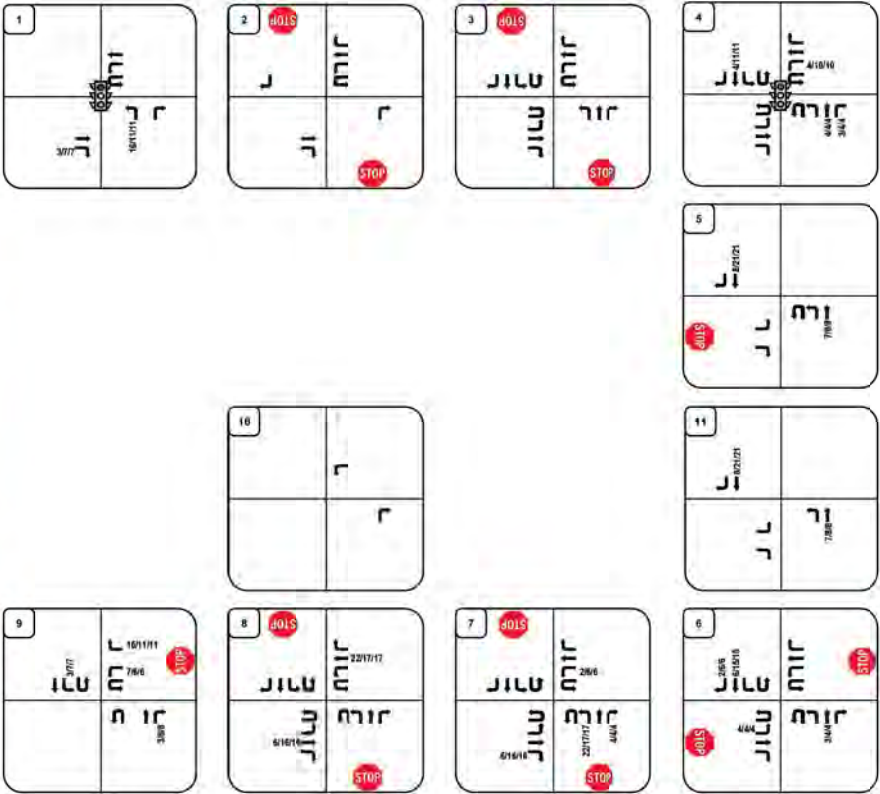


Figure AP03: Year 2045 Background Traffic (DeLo Boom Development)

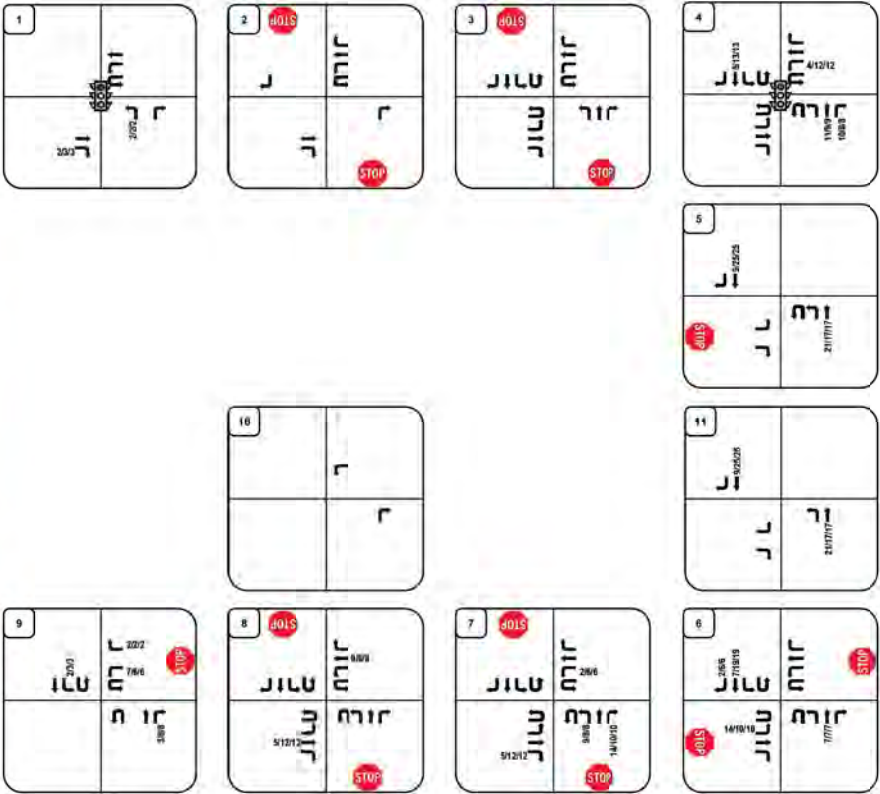


Figure AP04: Year 2045 Background Adjust (Int #5 & #6 Redistribution)

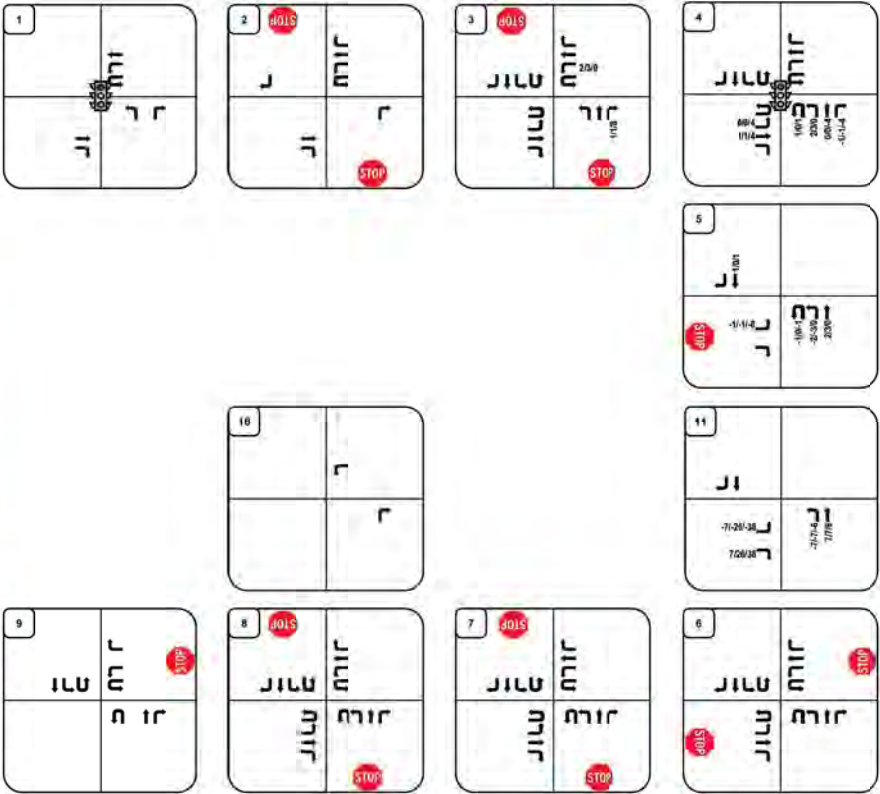


Figure AP05: Background Adjust for Total (Int #3 Redistribution)

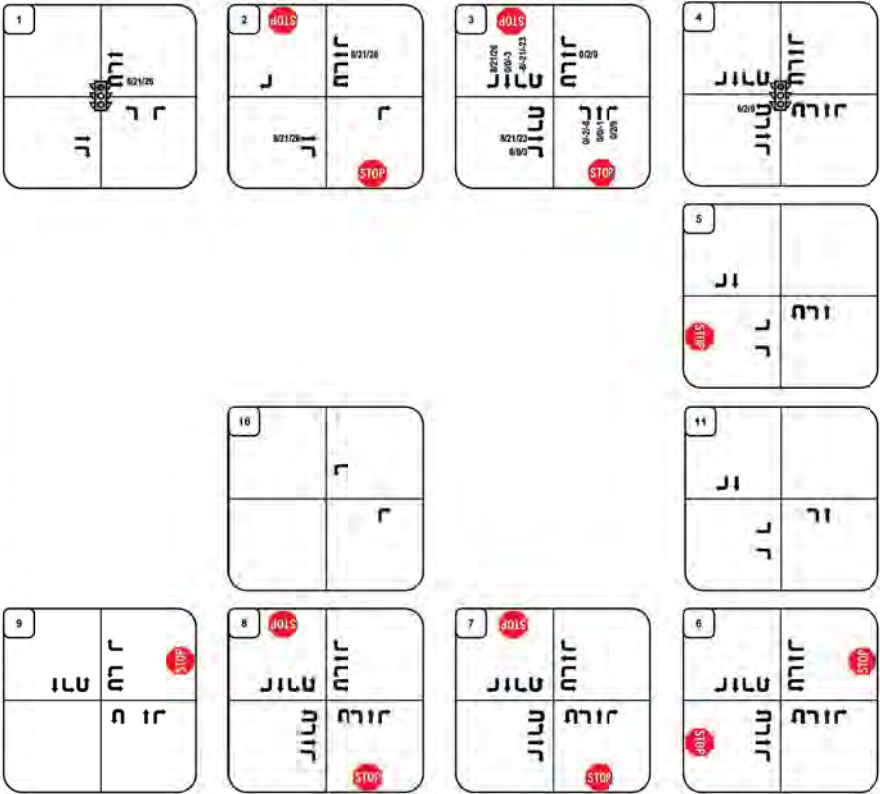


Figure AP06: Front Street Diverted Traffic (Year 2026)

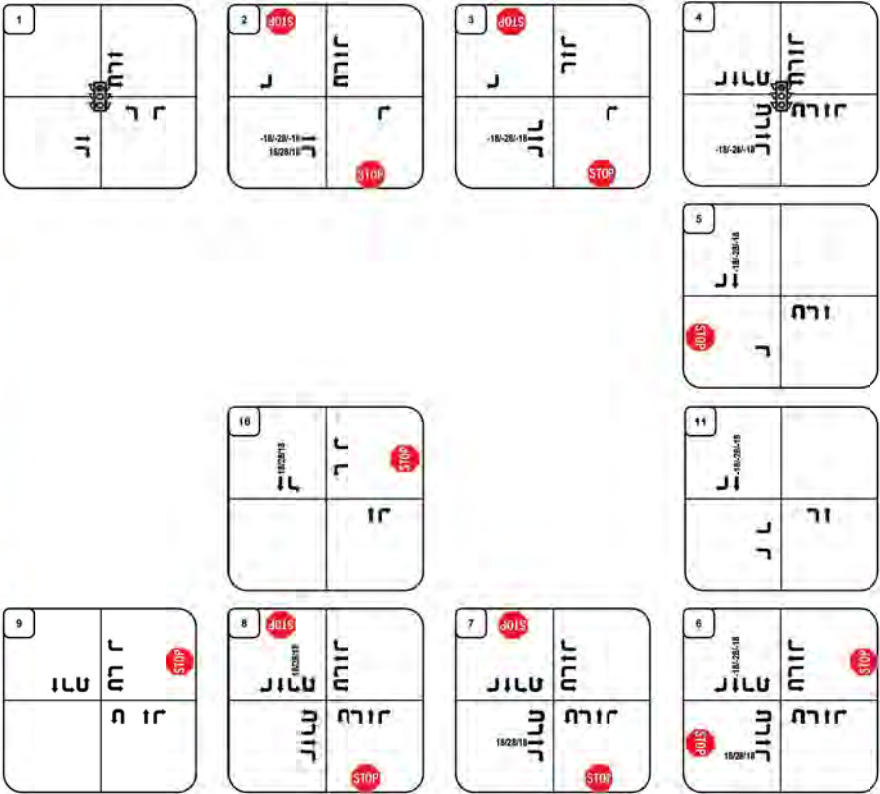
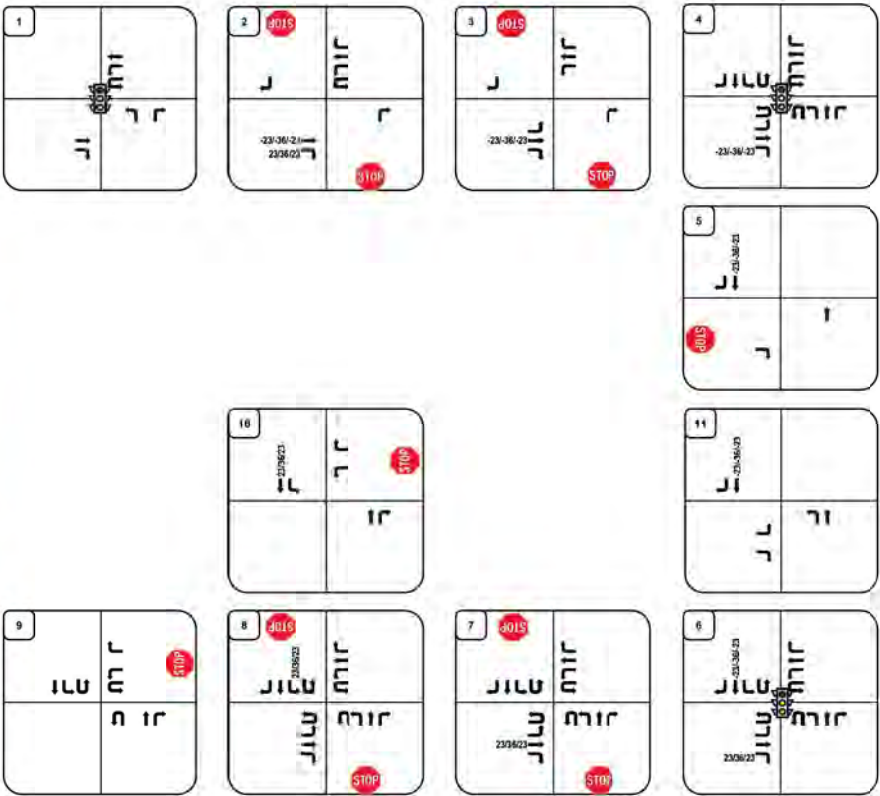


Figure AP07: Front Street Diverted Traffic (Year 2045)



Appendix N: Synchro Modeling Reports

1: Main Street & S Boulder Road
2026 Background AM.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2026 Background AM.syn

	→	↘	↙	←	↖	↗
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

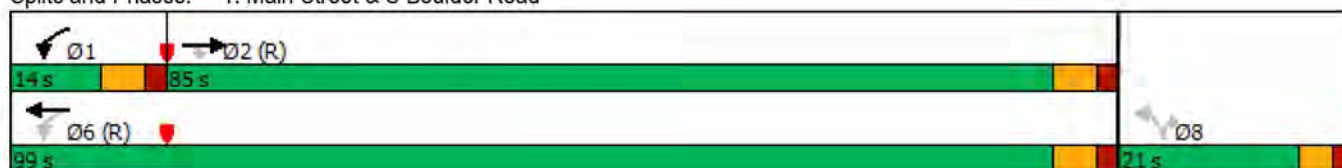
Intersection Capacity Utilization 61.3%

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



2: Front Street/Private Access & S Boulder Road
2026 Background AM.syn

												
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											

2: Front Street/Private Access & S Boulder Road 2026 Background AM.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Background AM.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2026 Background AM.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road 2026 Background AM.syn



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		

3: Cannon Circle/Private Access & S Boulder Road 2026 Background AM.syn

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 Effect 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

4: Courtesy Road (SH 42) & S Boulder Road 2026 Background AM.syn

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

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
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

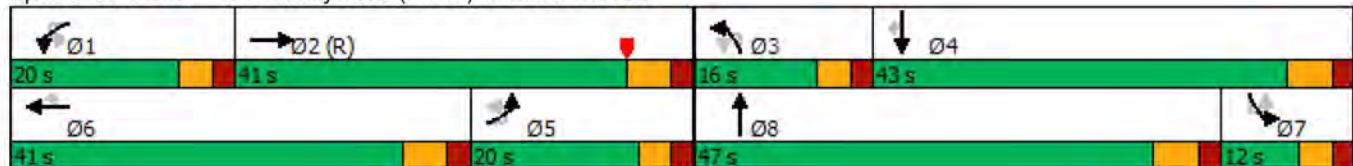
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2026 Background AM.syn



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	

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background AM.syn

							
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						

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background AM.syn

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	-	-	

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background AM.syn

												
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												

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background AM.syn

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	EBLn1WBLn1WBLn2	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	-	-					

7: Cannon Street & Griffith Street
2026 Background AM.syn

												
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												

7: Cannon Street & Griffith Street
2026 Background AM.syn

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				

8: Griffith Street & Front Street
2026 Background AM.syn

												
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%											
Analysis Period (min)	15											
ICU Level of Service A												

8: Griffith Street & Front Street
2026 Background AM.syn

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				

9: Main Street & Griffith Street
2026 Background AM.syn

								
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							

9: Main Street & Griffith Street
2026 Background AM.syn

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	NBRWBLn1	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	-			

10: Front Street & Harper Street
2026 Background AM.syn

						
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 Background AM.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Background AM.syn

Intersection

Int Delay, s/veh 0.4

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	W			W	W	
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	-	-

1: Main Street & S Boulder Road
2026 Background PM.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2026 Background PM.syn

	→	↘	↙	←	↖	↗
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

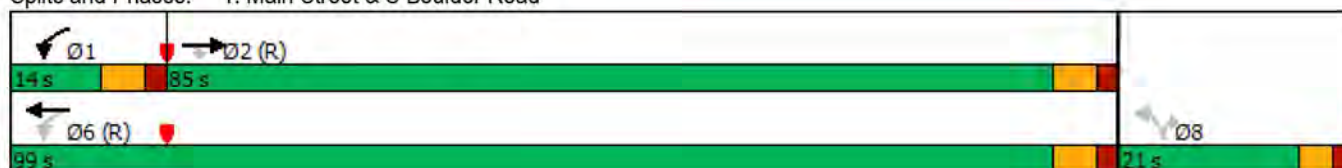
Intersection Capacity Utilization 67.3%

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



2: Front Street/Private Access & S Boulder Road
2026 Background PM.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road 2026 Background PM.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Background PM.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2026 Background PM.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service B											

3: Cannon Circle/Private Access & S Boulder Road 2026 Background PM.syn



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		

3: Cannon Circle/Private Access & S Boulder Road 2026 Background PM.syn

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

4: Courtesy Road (SH 42) & S Boulder Road
2026 Background PM.syn



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

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
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

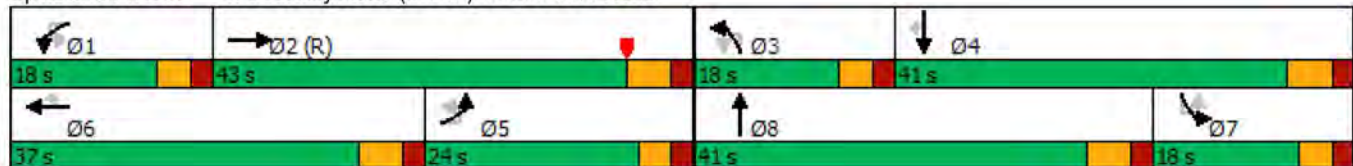
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2026 Background PM.syn



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		

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background PM.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background PM.syn

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	-	-	

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background PM.syn

												
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											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background PM.syn

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	EBLn1WBLn1WBLn2	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	-	-					

7: Cannon Street & Griffith Street
2026 Background PM.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2026 Background PM.syn

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	

7: Cannon Street & Griffith Street
2026 Background PM.syn

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							

8: Griffith Street & Front Street
2026 Background PM.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2026 Background PM.syn

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	

8: Griffith Street & Front Street
2026 Background PM.syn

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					

9: Main Street & Griffith Street
2026 Background PM.syn

							
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						

9: Main Street & Griffith Street
2026 Background PM.syn

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	NBRWBLn1		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	

10: Front Street & Harper Street
2026 Background PM.syn

						
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 Background PM.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Background PM.syn

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
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 Background SAT.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2026 Background SAT.syn

	→	↘	↙	←	↖	↗
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

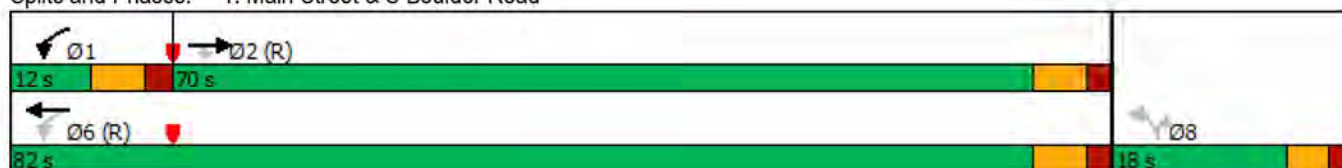
Intersection Capacity Utilization 62.7%

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



2: Front Street/Private Access & S Boulder Road
2026 Background SAT.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road

2026 Background SAT.syn



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	

2: Front Street/Private Access & S Boulder Road

2026 Background SAT.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2026 Background SAT.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

3: Cannon Circle/Private Access & S Boulder Road

2026 Background SAT.syn



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		

3: Cannon Circle/Private Access & S Boulder Road 2026 Background SAT.syn

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 Effect 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		

4: Courtesy Road (SH 42) & S Boulder Road 2026 Background SAT.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TT	LT
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 Effect 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

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
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

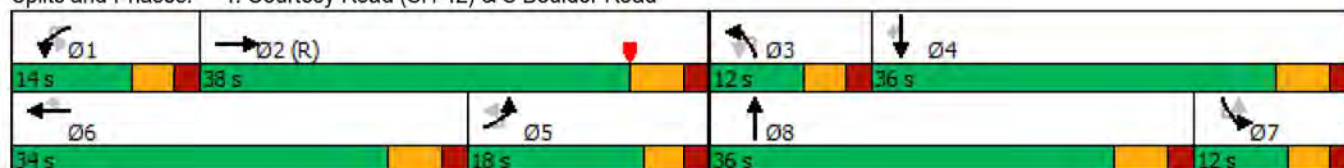
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2026 Background SAT.syn



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			

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background SAT.syn

							
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						

5: Courtesy Road (SH 42) & Cannon Circle
2026 Background SAT.syn

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	-	-			

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background SAT.syn

												
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											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Background SAT.syn

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	EBLn1WBLn1WBLn2	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	-	-					

7: Cannon Street & Griffith Street
2026 Background SAT.syn

												
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											

7: Cannon Street & Griffith Street
2026 Background SAT.syn

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%											
Analysis Period (min)	15											
ICU Level of Service A												

8: Griffith Street & Front Street
2026 Background SAT.syn

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				

9: Main Street & Griffith Street
2026 Background SAT.syn

						
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					

9: Main Street & Griffith Street
2026 Background SAT.syn

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	NBRWBLn1	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	-	

10: Front Street & Harper Street
2026 Background SAT.syn

						
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 Background SAT.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Background SAT.syn

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
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 Background AM.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2045 Background AM.syn

	→	↘	↙	←	↖	↗
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

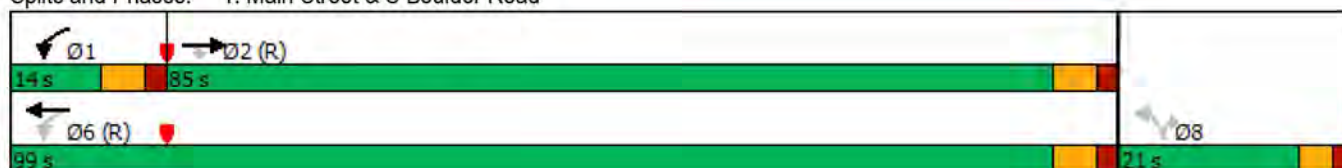
Intersection Capacity Utilization 66.9%

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%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road 2045 Background AM.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2045 Background AM.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2045 Background AM.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
2045 Background AM.syn



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		

3: Cannon Circle/Private Access & S Boulder Road 2045 Background AM.syn

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

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background AM.syn

	↓	↙
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

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
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

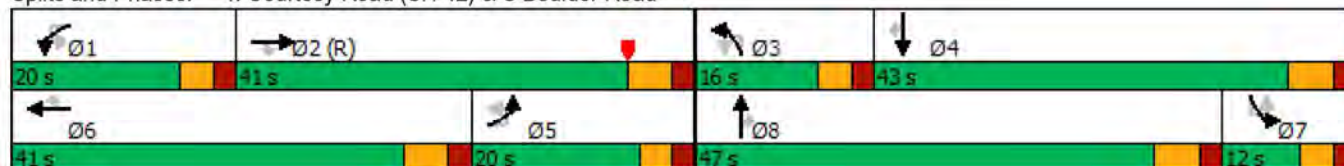
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2045 Background AM.syn



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		

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background AM.syn



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

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background AM.syn

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 Effect 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

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
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

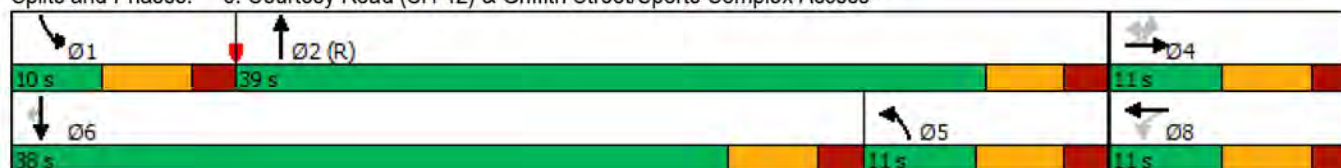
Intersection Capacity Utilization 46.8%

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												

7: Cannon Street & Griffith Street
2045 Background AM.syn

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											

8: Griffith Street & Front Street
2045 Background AM.syn

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				

9: Main Street & Griffith Street
2045 Background AM.syn

								
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							

9: Main Street & Griffith Street
2045 Background AM.syn

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	NBRWBLn1	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	-			

10: Front Street & Harper Street
2045 Background AM.syn

						
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 Background AM.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2045 Background AM.syn

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	- -	- -

1: Main Street & S Boulder Road
2045 Background PM.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2045 Background PM.syn

	→	↘	↙	←	↖	↗
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

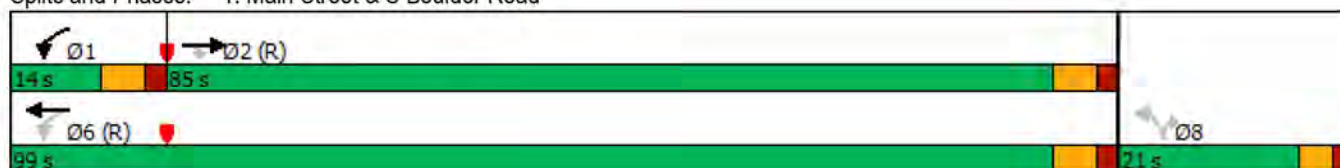
Intersection Capacity Utilization 78.9%

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



2: Front Street/Private Access & S Boulder Road
2045 Background PM.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road
2045 Background PM.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2045 Background PM.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2045 Background PM.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
2045 Background PM.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Background PM.syn

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

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background PM.syn



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

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
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

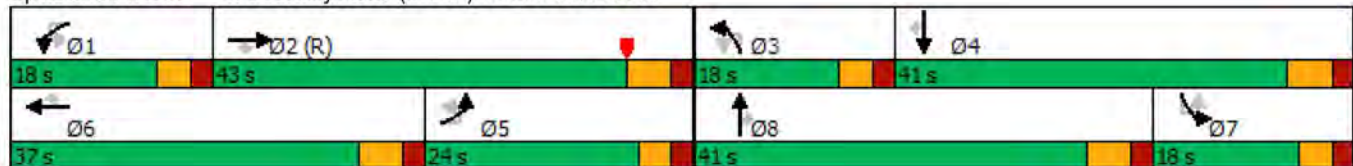
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2045 Background PM.syn



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		

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background PM.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background PM.syn

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		-	-		

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background PM.syn

												
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 Effect 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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background PM.syn

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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background PM.syn

												
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

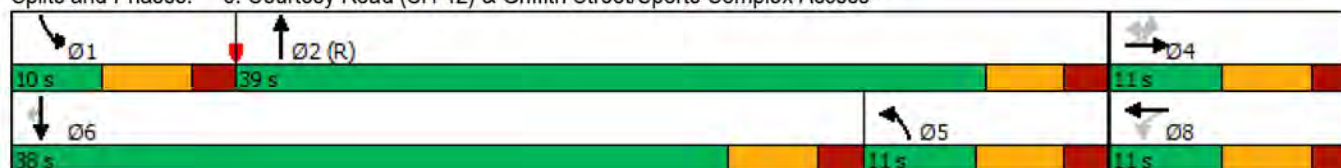
Intersection Capacity Utilization 52.7%

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



6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Background PM.syn



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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2045 Background PM.syn

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	

7: Cannon Street & Griffith Street
2045 Background PM.syn

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%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2045 Background PM.syn

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	

8: Griffith Street & Front Street
2045 Background PM.syn

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					

9: Main Street & Griffith Street
2045 Background PM.syn

							
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						

9: Main Street & Griffith Street
2045 Background PM.syn

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	NBRWBLn1		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	

10: Front Street & Harper Street
2045 Background PM.syn

						
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 Background PM.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2045 Background PM.syn

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 Background SAT.syn

	→	↘	↙	←	↖	↗
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

1: Main Street & S Boulder Road
2045 Background SAT.syn

	→	↘	↙	←	↖	↗
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

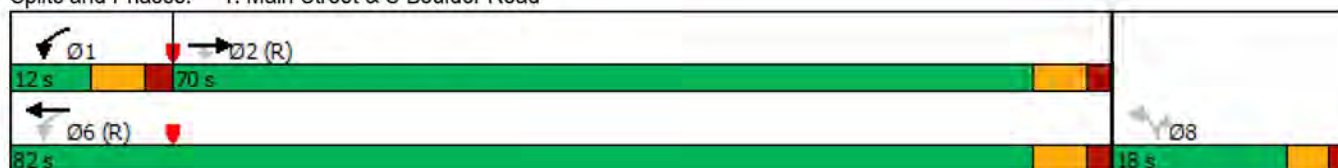
Intersection Capacity Utilization 62.9%

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



2: Front Street/Private Access & S Boulder Road
2045 Background SAT.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2045 Background SAT.syn

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	

2: Front Street/Private Access & S Boulder Road
2045 Background SAT.syn

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						

3: Cannon Circle/Private Access & S Boulder Road
2045 Background SAT.syn

												
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												

3: Cannon Circle/Private Access & S Boulder Road
2045 Background SAT.syn



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		

3: Cannon Circle/Private Access & S Boulder Road 2045 Background SAT.syn

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 Effect 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	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Background SAT.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
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

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
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

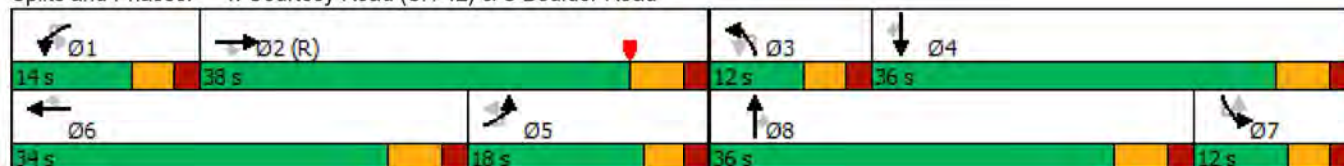
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road 2045 Background SAT.syn



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			

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background SAT.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
2045 Background SAT.syn

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 Effect 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

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
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

 Ø1	 Ø2 (R)	 Ø4
12 s	27 s	11 s
 Ø6	 Ø5	 Ø8
25 s	14 s	11 s

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											

7: Cannon Street & Griffith Street
2045 Background SAT.syn

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

8: Griffith Street & Front Street
2045 Background SAT.syn

												
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												

8: Griffith Street & Front Street
2045 Background SAT.syn

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

9: Main Street & Griffith Street
2045 Background SAT.syn

						
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					

9: Main Street & Griffith Street
2045 Background SAT.syn

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	NBRWBLn1	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	-	

10: Front Street & Harper Street
2045 Background SAT.syn

						
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 Background SAT.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2045 Background SAT.syn

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	- -	- -

1: Main Street & S Boulder Road
2026 Total AM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↙	↑↑	↙	↙
Traffic Volume (vph)	936	112	8	79	1210	103	104
Future Volume (vph)	936	112	8	79	1210	103	104
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				0.235		0.950	
Satd. Flow (perm)	3539	1531	0	437	3539	1759	1505
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		122					113
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	95	1315	112	113
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 Effect Green (s)	84.8	84.8		97.6	97.6	14.4	13.4
Actuated g/C Ratio	0.71	0.71		0.81	0.81	0.12	0.11
v/c Ratio	0.41	0.11		0.21	0.46	0.53	0.42
Control Delay	8.2	1.4		5.2	5.8	58.4	13.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	8.2	1.4		5.2	5.8	58.4	13.7
LOS	A	A		A	A	E	B
Approach Delay	7.5				5.7	35.9	
Approach LOS	A				A	D	
Queue Length 50th (ft)	166	0		19	148	81	0

1: Main Street & S Boulder Road
 2026 Total AM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	212	19		m33	203	140	54
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2500	1117		466	2878	249	298
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	0.41	0.11		0.20	0.46	0.45	0.38

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 23 (19%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.9

Intersection LOS: A

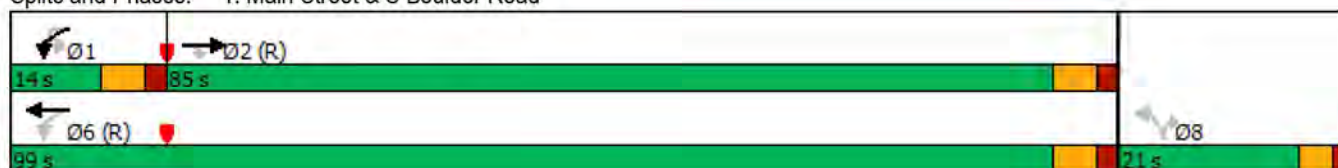
Intersection Capacity Utilization 64.4%

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
2026 Total AM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↘	↑↑				↗		
Traffic Volume (vph)	0	886	36	2	7	1326	5	0	0	22	0	0
Future Volume (vph)	0	886	36	2	7	1326	5	0	0	22	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	963	39	0	10	1446	0	0	0	24	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	48.4%											
Analysis Period (min)	15											
ICU Level of Service A												

2: Front Street/Private Access & S Boulder Road
2026 Total AM with Front Street Connection.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Total AM with Front Street Connection.syn

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	886	36	2	7	1326	5	0	0	22	0	0	11
Future Vol, veh/h	0	886	36	2	7	1326	5	0	0	22	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	963	39	2	8	1441	5	0	0	24	0	0	12
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	963	1012	0	0	-	-	497	-	-	738
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	-	-	351	681	-	-	0	0	519	0	0	360
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	551	551	-	-	-	-	512	-	-	355
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.1			12.4			15.5			
HCM LOS							B			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	512	-	-	551	-	-	355						
HCM Lane V/C Ratio	0.047	-	-	0.018	-	-	0.034						
HCM Control Delay (s)	12.4	-	-	11.6	-	-	15.5						
HCM Lane LOS	B	-	-	B	-	-	C						
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	0.1						

3: Cannon Circle/Private Access & S Boulder Road
2026 Total AM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	887	11	1	21	1300	8	0	0	32	0
Future Volume (vph)	6	21	887	11	1	21	1300	8	0	0	32	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			0.998				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	976	0	0	24	1422	0	0	0	35	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	47.7%						ICU Level of Service A					
Analysis Period (min)	15											

3: Cannon Circle/Private Access & S Boulder Road
2026 Total AM with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total AM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.7

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Vol, veh/h	6	21	887	11	1	21	1300	8	0	0	32	0	0	36
Future Vol, veh/h	6	21	887	11	1	21	1300	8	0	0	32	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	964	12	1	23	1413	9	0	0	35	0	0	39

Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1422	1432	0	0	976	986	0	0	-	-	503	-	-	726
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	177	470	-	-	344	696	-	-	0	0	514	0	0	367
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	326	326	-	-	655	655	-	-	-	-	507	-	-	362
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	12.6	16.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	326	-	-	655	-	-	362
HCM Lane V/C Ratio	0.069	0.09	-	-	0.037	-	-	0.108
HCM Control Delay (s)	12.6	17.1	-	-	10.7	-	-	16.1
HCM Lane LOS	B	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-	-	0.4

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations		RT	LT		RT	LT	RT	RT	LT			RT
Traffic Volume (vph)	13	312	429	135	261	683	153	177	467	198	5	128
Future Volume (vph)	13	312	429	135	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			1.00				0.98		0.99			
Frt			0.964				0.850		0.955			
Flt Protected		0.950			0.950			0.950				0.950
Satd. Flow (prot)	0	3433	3397	0	3433	3539	1583	3433	3363	0	0	3433
Flt Permitted		0.370			0.950			0.950				0.571
Satd. Flow (perm)	0	1337	3397	0	3433	3539	1546	3433	3363	0	0	2063
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)			35				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	353	613	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 Effect 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		2.11	0.59		0.71	0.72	0.29	0.64	0.61			1.20
Control Delay		545.3	30.5		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		545.3	30.5		61.5	42.8	4.9	63.3	32.6			193.3
LOS		F	C		E	D	A	E	C			F
Approach Delay			218.6			42.0			39.0			
Approach LOS			F			D			D			
Queue Length 50th (ft)		~226	202		109	271	0	75	224			~69

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM with Front Street Connection.syn



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	578	444
Future Volume (vph)	578	444
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)		272
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)	628	483
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	0.72
Control Delay	37.0	22.3
Queue Delay	0.0	0.0
Total Delay	37.0	22.3
LOS	D	C
Approach Delay	49.3	
Approach LOS	D	
Queue Length 50th (ft)	214	147

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Queue Length 95th (ft)		#326	267		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	1045		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		2.11	0.59		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: 2.11

Intersection Signal Delay: 82.9

Intersection LOS: F

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

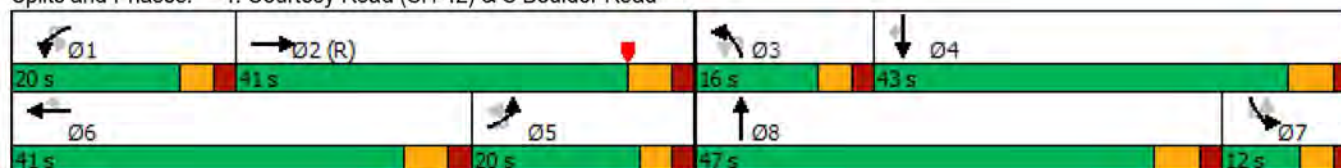
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM with Front Street Connection.syn



Lane Group	SBT	SBR
Queue Length 95th (ft)	276	282
Internal Link Dist (ft)	1257	
Turn Bay Length (ft)		270
Base Capacity (vph)	1107	673
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.57	0.72
Intersection Summary		

5: Courtesy Road (SH 42) & Cannon Circle
 2026 Total AM with Front Street Connection.syn

							
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1	17	1	10	821	966	1
Future Volume (vph)	1	17	1	10	821	966	1
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					
Flt Protected	0.950			0.950			
Satd. Flow (prot)	0	1611	0	1770	1863	3539	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	0	1611	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	18	0	12	892	1051	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						

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total AM with Front Street Connection.syn

Intersection								
Int Delay, s/veh	0.2							
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR	
Lane Configurations								
Traffic Vol, veh/h	1	17	1	10	821	966	1	
Future Vol, veh/h	1	17	1	10	821	966	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	18	1	11	892	1050	1	
Major/Minor	Minor2	Major1		Major2				
Conflicting Flow All	1970	531	1051	1056	0	-	0	
Stage 1	1056	-	-	-	-	-	-	
Stage 2	914	-	-	-	-	-	-	
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	61	494	233	657	-	-	-	
Stage 1	297	-	-	-	-	-	-	
Stage 2	390	-	-	-	-	-	-	
Platoon blocked, %					-	-	-	
Mov Cap-1 Maneuver	59	492	557	557	-	-	-	
Mov Cap-2 Maneuver	59	-	-	-	-	-	-	
Stage 1	289	-	-	-	-	-	-	
Stage 2	388	-	-	-	-	-	-	
Approach	EB	NB		SB				
HCM Control Delay, s	12.6	0.2		0				
HCM LOS	B							
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR			
Capacity (veh/h)	557	-	492	-	-			
HCM Lane V/C Ratio	0.021	-	0.038	-	-			
HCM Control Delay (s)	11.6	-	12.6	-	-			
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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	0	72	0	0	0	40	812	4	5	905	83
Future Volume (vph)	19	0	72	0	0	0	40	812	4	5	905	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		0.894						0.999				0.850
Flt Protected		0.990					0.950			0.950		
Satd. Flow (prot)	0	1649	0	0	1863	1863	1770	1861	0	1770	1863	1583
Flt Permitted		0.990					0.950			0.950		
Satd. Flow (perm)	0	1649	0	0	1863	1863	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	99	0	0	0	0	43	887	0	5	984	90
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	59.8%						ICU Level of Service B					
Analysis Period (min)	15											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total AM with Front Street Connection.syn

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	↕
Traffic Vol, veh/h	19	0	72	0	0	0	40	812	4	5	905	83
Future Vol, veh/h	19	0	72	0	0	0	40	812	4	5	905	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	78	0	0	0	43	883	4	5	984	90
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1965	1967	984	2049	2055	885	1074	0	0	887	0	0
Stage 1	994	994	-	971	971	-	-	-	-	-	-	-
Stage 2	971	973	-	1078	1084	-	-	-	-	-	-	-
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	47	63	301	41	55	344	649	-	-	763	-	-
Stage 1	295	323	-	304	331	-	-	-	-	-	-	-
Stage 2	304	330	-	265	293	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	44	58	301	29	51	344	649	-	-	763	-	-
Mov Cap-2 Maneuver	44	58	-	29	51	-	-	-	-	-	-	-
Stage 1	276	321	-	284	309	-	-	-	-	-	-	-
Stage 2	284	308	-	195	291	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	81.6		0		0.5		0					
HCM LOS	F		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	649	-	-	136	-	-	763	-	-			
HCM Lane V/C Ratio	0.067	-	-	0.727	-	-	0.007	-	-			
HCM Control Delay (s)	10.9	-	-	81.6	0	0	9.8	-	-			
HCM Lane LOS	B	-	-	F	A	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	4.2	-	-	0	-	-			

7: Cannon Street & Griffith Street
2026 Total AM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	79	13	14	93	2	32	0	9	0	0	1
Future Volume (vph)	0	79	13	14	93	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		0.981			0.998			0.970			0.865	
Flt Protected					0.994			0.963				
Satd. Flow (prot)	0	1827	0	0	1848	0	0	1740	0	0	1611	0
Flt Permitted					0.994			0.963				
Satd. Flow (perm)	0	1827	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	100	0	0	118	0	0	45	0	0	1	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.0%						ICU Level of Service A					
Analysis Period (min)	15											

7: Cannon Street & Griffith Street
2026 Total AM with Front Street Connection.syn

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	79	13	14	93	2	32	0	9	0	0	1
Future Vol, veh/h	0	79	13	14	93	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	86	14	15	101	2	35	0	10	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	105	0	0	236	236	103	240	242	112
Stage 1	-	-	-	-	-	-	98	98	-	137	137	-
Stage 2	-	-	-	-	-	-	138	138	-	103	105	-
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	1483	-	-	1486	-	-	718	665	952	714	660	941
Stage 1	-	-	-	-	-	-	908	814	-	866	783	-
Stage 2	-	-	-	-	-	-	865	782	-	903	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1476	-	-	1479	-	-	704	651	943	694	646	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	704	651	-	694	646	-
Stage 1	-	-	-	-	-	-	903	810	-	862	770	-
Stage 2	-	-	-	-	-	-	850	769	-	889	804	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1			10.1			8.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	745	1476	-	-	1479	-	-	932				
HCM Lane V/C Ratio	0.06	-	-	-	0.01	-	-	0.001				
HCM Control Delay (s)	10.1	0	-	-	7.5	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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	75	2	3	140	4	6	0	3	19	0	45
Future Volume (vph)	6	75	2	3	140	4	6	0	3	19	0	45
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			0.997			0.959			0.905	
Flt Protected		0.996			0.999			0.966			0.985	
Satd. Flow (prot)	0	1850	0	0	1855	0	0	1726	0	0	1660	0
Flt Permitted		0.996			0.999			0.966			0.985	
Satd. Flow (perm)	0	1850	0	0	1855	0	0	1726	0	0	1660	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	91	0	0	159	0	0	10	0	0	70	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2026 Total AM with Front Street Connection.syn

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	6	75	2	3	140	4	6	0	3	19	0	45
Future Vol, veh/h	6	75	2	3	140	4	6	0	3	19	0	45
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	82	2	3	152	4	7	0	3	21	0	49
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	94	0	0	297	274	98	269	273	164
Stage 1	-	-	-	-	-	-	107	107	-	165	165	-
Stage 2	-	-	-	-	-	-	190	167	-	104	108	-
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	1418	-	-	1500	-	-	655	633	958	684	634	881
Stage 1	-	-	-	-	-	-	898	807	-	837	762	-
Stage 2	-	-	-	-	-	-	812	760	-	902	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1486	-	-	607	619	944	672	620	873
Mov Cap-2 Maneuver	-	-	-	-	-	-	607	619	-	672	620	-
Stage 1	-	-	-	-	-	-	885	795	-	829	757	-
Stage 2	-	-	-	-	-	-	761	755	-	890	794	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.2			10.3			9.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	689	1411	-	-	1486	-	-	802				
HCM Lane V/C Ratio	0.014	0.005	-	-	0.002	-	-	0.087				
HCM Control Delay (s)	10.3	7.6	0	-	7.4	0	-	9.9				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3				

9: Main Street & Griffith Street
2026 Total AM with Front Street Connection.syn

								
Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	59	95	1	160	64	21	117
Future Volume (vph)	1	59	95	1	160	64	21	117
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		0.917			0.961			
Flt Protected		0.981						0.992
Satd. Flow (prot)	0	1676	0	0	1790	0	0	1848
Flt Permitted		0.981						0.992
Satd. Flow (perm)	0	1676	0	0	1790	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	168	0	0	245	0	0	150
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							

9: Main Street & Griffith Street
2026 Total AM with Front Street Connection.syn

Intersection								
Int Delay, s/veh	4.9							
Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	59	95	1	160	64	21	117
Future Vol, veh/h	1	59	95	1	160	64	21	117
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	64	103	1	174	70	23	127
Major/Minor	Minor1	Major1			Major2			
Conflicting Flow All	0	453	411	-	0	0	314	0
Stage 1	0	279	-	-	-	-	-	-
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	565	641	-	-	-	1246	-
Stage 1	0	768	-	-	-	-	-	-
Stage 2	0	856	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	515	523	-	-	-	1163	-
Mov Cap-2 Maneuver	0	515	-	-	-	-	-	-
Stage 1	0	701	-	-	-	-	-	-
Stage 2	0	855	-	-	-	-	-	-
Approach	WB	NB			SB			
HCM Control Delay, s	15.2				1.2			
HCM LOS	C							
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT				
Capacity (veh/h)	-	-	520	1163				
HCM Lane V/C Ratio	-	-	0.322	0.02				
HCM Control Delay (s)	-	-	15.2	8.2	0			
HCM Lane LOS	-	-	C	A	A			
HCM 95th %tile Q(veh)	-	-	1.4	0.1				

10: Front Street & Harper Street
2026 Total AM with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	7	3	0	58
Future Volume (vph)	6	0	7	3	0	58
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			0.963			
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1794	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1794	0	0	1863
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	11	0	0	63
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2026 Total AM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	7	3	0	58
Future Vol, veh/h	6	0	7	3	0	58
Conflicting Peds, #/hr	5	132	0	70	70	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	7	0	8	3	0	63

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	148	212	0
Stage 1	80	-	-
Stage 2	68	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	844	828	-
Stage 1	943	-	-
Stage 2	955	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	783	676	-
Mov Cap-2 Maneuver	783	-	-
Stage 1	880	-	-
Stage 2	950	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	783	1416
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	9.6	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Courtesy Road (SH 42) & Harper Street
2026 Total AM with Front Street Connection.syn

						
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)	257			369	420	
Travel Time (s)	5.8			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)	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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total AM with Front Street Connection.syn

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	-	-	

1: Main Street & S Boulder Road
2026 Total PM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↙	↑↑	↙	↙
Traffic Volume (vph)	1302	106	21	76	1016	111	178
Future Volume (vph)	1302	106	21	76	1016	111	178
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				0.137		0.950	
Satd. Flow (perm)	3539	1531	0	255	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	106	1104	121	193
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 Effect Green (s)	85.1	85.1		98.0	98.0	14.0	13.0
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.12	0.11
v/c Ratio	0.56	0.10		0.33	0.38	0.59	0.70
Control Delay	10.0	2.5		9.3	6.2	61.8	32.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	10.0	2.5		9.3	6.2	61.8	32.8
LOS	A	A		A	A	E	C
Approach Delay	9.4				6.4	44.0	
Approach LOS	A				A	D	
Queue Length 50th (ft)	253	7		29	142	90	48

1: Main Street & S Boulder Road
 2026 Total PM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	344	27		m48	m192	150	127
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2509	1109		334	2890	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		0.32	0.38	0.49	0.63

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: 0.70

Intersection Signal Delay: 11.8

Intersection LOS: B

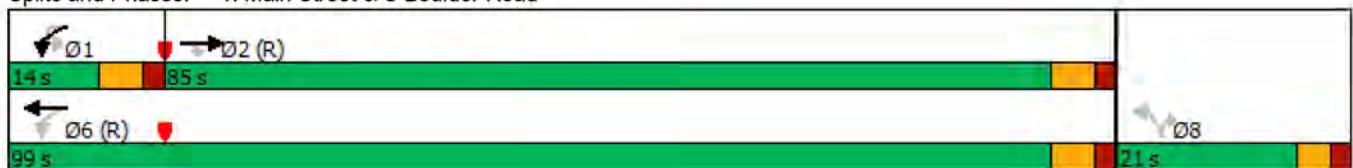
Intersection Capacity Utilization 74.7%

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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↘	↑↑				↗		
Traffic Volume (vph)	0	1408	65	4	16	1109	5	0	0	29	0	0
Future Volume (vph)	0	1408	65	4	16	1109	5	0	0	29	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	1530	71	0	21	1210	0	0	0	32	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	50.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2026 Total PM with Front Street Connection.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Total PM with Front Street Connection.syn

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	1408	65	4	16	1109	5	0	0	29	0	0	5
Future Vol, veh/h	0	1408	65	4	16	1109	5	0	0	29	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	1530	71	4	17	1205	5	0	0	32	0	0	5
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	1530	1611	0	0	-	-	780	-	-	620
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	-	-	151	401	-	-	0	0	338	0	0	431
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	289	289	-	-	-	-	333	-	-	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.3			16.9			13.6			
HCM LOS							C			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	333	-	-	289	-	-	425						
HCM Lane V/C Ratio	0.095	-	-	0.075	-	-	0.013						
HCM Control Delay (s)	16.9	-	-	18.5	-	-	13.6						
HCM Lane LOS	C	-	-	C	-	-	B						
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-	-	0						

3: Cannon Circle/Private Access & S Boulder Road
2026 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1423	49	2	50	1114	12	0	0	58	0
Future Volume (vph)	23	48	1423	49	2	50	1114	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)		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			0.995				0.998				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3522	0	0	1770	3532	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3522	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	1600	0	0	56	1224	0	0	0	63	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	59.8%						ICU Level of Service B					
Analysis Period (min)	15											

3: Cannon Circle/Private Access & S Boulder Road
 2026 Total PM with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total PM with Front Street Connection.syn

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	1423	49	2	50	1114	12	0	0	58	0	0	66
Future Vol, veh/h	23	48	1423	49	2	50	1114	12	0	0	58	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	1547	53	2	54	1211	13	0	0	63	0	0	72
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1224	1234	0	0	1600	1610	0	0	-	-	815	-	-	627
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	238	560	-	-	136	402	-	-	0	0	321	0	0	426
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	353	353	-	-	362	362	-	-	-	-	316	-	-	420
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.8			0.7			19.2			15.3				
HCM LOS							C			C				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	316	353	-	-	362	-	-	420						
HCM Lane V/C Ratio	0.2	0.219	-	-	0.156	-	-	0.171						
HCM Control Delay (s)	19.2	18	-	-	16.8	-	-	15.3						
HCM Lane LOS	C	C	-	-	C	-	-	C						
HCM 95th %tile Q(veh)	0.7	0.8	-	-	0.5	-	-	0.6						

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations		↔↔	↕↕		↔↔	↕↕	↕		↔↔	↕↕		
Traffic Volume (vph)	22	591	751	146	355	652	202	1	132	709	255	9
Future Volume (vph)	22	591	751	146	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			0.976				0.850			0.960		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3444	0	3433	3539	1583	0	3433	3382	0	0
Flt Permitted		0.382			0.950				0.308			
Satd. Flow (perm)	0	1380	3444	0	3433	3539	1546	0	1113	3382	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			19				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	666	975	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 Effect 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		3.06	0.91		1.04	0.78	0.40		1.20	1.03		
Control Delay		953.6	45.8		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		953.6	45.8		109.4	48.1	7.8		191.3	76.8		
LOS		F	D		F	D	A		F	E		
Approach Delay			414.2			59.3				90.6		
Approach LOS			F			E				F		
Queue Length 50th (ft)		~469	376		~165	268	6		~69	~444		

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Lane Configurations	RT	LT	LT
Traffic Volume (vph)	139	536	342
Future Volume (vph)	139	536	342
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)			339
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	583	372
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 Effect Green (s)	13.0	35.0	35.0
Actuated g/C Ratio	0.11	0.29	0.29
v/c Ratio	1.34	0.56	0.54
Control Delay	240.4	38.6	8.2
Queue Delay	0.0	0.0	0.0
Total Delay	240.4	38.6	8.2
LOS	F	D	A
Approach Delay		57.6	
Approach LOS		E	
Queue Length 50th (ft)	~83	201	19

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#590	#499		#267	341	68		#138	#581		
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150			225		270					
Base Capacity (vph)		218	1075		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		3.06	0.91		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: 3.06

Intersection Signal Delay: 176.7

Intersection LOS: F

Intersection Capacity Utilization 94.2%

ICU Level of Service F

Analysis Period (min) 15

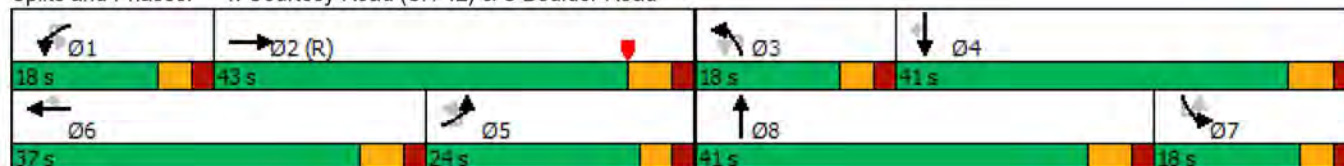
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#156	261	102
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	120	1032	693
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.34	0.56	0.54
Intersection Summary			

5: Courtesy Road (SH 42) & Cannon Circle
 2026 Total PM with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	19	20	1112	1024	9
Future Volume (vph)	1	19	20	1112	1024	9
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			0.999	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	0	1611	1770	1863	3536	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	0	1611	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)	1	21	22	1209	1123	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					

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total PM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	19	20	1112	1024	9
Future Vol, veh/h	1	19	20	1112	1024	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	21	22	1209	1113	10

Major/Minor	Minor2		Major1	Major2		
Conflicting Flow All	2376	567	1128	0	-	0
Stage 1	1123	-	-	-	-	-
Stage 2	1253	-	-	-	-	-
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	33	468	617	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	31	466	614	-	-	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	262	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	614	-	466	-	-
HCM Lane V/C Ratio	0.035	-	0.044	-	-
HCM Control Delay (s)	11.1	-	13.1	-	-
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 PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	11	0	67	0	0	0	26	1101	2	1	970
Future Volume (vph)	2	11	0	67	0	0	0	26	1101	2	1	970
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			0.887									
Flt Protected			0.992					0.950			0.950	
Satd. Flow (prot)	0	0	1639	0	0	1863	1863	1770	1863	0	1770	1863
Flt Permitted			0.992					0.950			0.950	
Satd. Flow (perm)	0	0	1639	0	0	1863	1863	1770	1863	0	1770	1863
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	0	87	0	0	0	0	28	1199	0	1	1054
Sign Control			Stop			Stop			Free			Free
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	69.6%						ICU Level of Service C					
Analysis Period (min)	15											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total PM with Front Street Connection.syn



Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	123
Future Volume (vph)	123
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)	134
Sign Control	
Intersection Summary	

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total PM with Front Street Connection.syn

Intersection													
Int Delay, s/veh	3.3												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↕			↕	↕	↕	↕		↕	↕	↕
Traffic Vol, veh/h	2	11	0	67	0	0	0	26	1101	2	1	970	123
Future Vol, veh/h	2	11	0	67	0	0	0	26	1101	2	1	970	123
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	73	0	0	0	28	1197	2	1	1054	134
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	0	2310	2311	1054	2414	2444	1198	1188	0	0	1199	0	0
Stage 1	0	1056	1056	-	1254	1254	-	-	-	-	-	-	-
Stage 2	0	1254	1255	-	1160	1190	-	-	-	-	-	-	-
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	27	38	275	23	31	226	588	-	-	582	-	-
Stage 1	0	272	302	-	211	243	-	-	-	-	-	-	-
Stage 2	0	211	243	-	238	261	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	0	26	36	275	16	29	226	588	-	-	582	-	-
Mov Cap-2 Maneuver	0	26	36	-	16	29	-	-	-	-	-	-	-
Stage 1	0	259	301	-	201	231	-	-	-	-	-	-	-
Stage 2	0	201	231	-	175	260	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	91.6			0			0.3			0			
HCM LOS	F			A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR				
Capacity (veh/h)	588	-	-	117	-	-	582	-	-				
HCM Lane V/C Ratio	0.048	-	-	0.725	-	-	0.002	-	-				
HCM Control Delay (s)	11.4	-	-	91.6	0	0	11.2	-	-				
HCM Lane LOS	B	-	-	F	A	A	B	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	4	-	-	0	-	-				

7: Cannon Street & Griffith Street
2026 Total PM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	64	26	1	27	126	1	28	1	5	0	2
Future Volume (vph)	2	64	26	1	27	126	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		0.962				0.999			0.981			
Flt Protected		0.999				0.991			0.960			
Satd. Flow (prot)	0	1790	0	0	0	1844	0	0	1754	0	0	1863
Flt Permitted		0.999				0.991			0.960			
Satd. Flow (perm)	0	1790	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	100	0	0	0	168	0	0	36	0	0	2
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.9%											
Analysis Period (min)	15											
ICU Level of Service A												

7: Cannon Street & Griffith Street
2026 Total PM with Front Street Connection.syn

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	

7: Cannon Street & Griffith Street
2026 Total PM with Front Street Connection.syn

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	64	26	1	27	126	1	28	1	5	0	2	0
Future Vol, veh/h	2	64	26	1	27	126	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	70	28	1	29	137	1	30	1	5	0	2	0
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	143	0	0	-	103	0	0	295	296	94	297	310	148
Stage 1	-	-	-	-	-	-	-	93	93	-	201	203	-
Stage 2	-	-	-	-	-	-	-	202	203	-	96	107	-
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	1440	-	-	-	1489	-	-	657	616	963	655	605	899
Stage 1	-	-	-	-	-	-	-	914	818	-	801	733	-
Stage 2	-	-	-	-	-	-	-	800	733	-	911	807	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1433	-	-	~-29	~-29	-	-	648	609	954	644	598	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	648	609	-	644	598	-
Stage 1	-	-	-	-	-	-	-	909	813	-	796	729	-
Stage 2	-	-	-	-	-	-	-	794	729	-	899	802	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0.2						10.6			11			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	679	1433	-	-	+	-	-	598					
HCM Lane V/C Ratio	0.054	0.002	-	-	-	-	-	0.004					
HCM Control Delay (s)	10.6	7.5	0	-	-	-	-	11					
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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	70	6	5	155	7	2	0	1	3	28	0
Future Volume (vph)	15	70	6	5	155	7	2	0	1	3	28	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		0.990			0.994			0.955				0.934
Flt Protected		0.992			0.999			0.968				0.975
Satd. Flow (prot)	0	1829	0	0	1850	0	0	1722	0	0	0	1696
Flt Permitted		0.992			0.999			0.968				0.975
Satd. Flow (perm)	0	1829	0	0	1850	0	0	1722	0	0	0	1696
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	99	0	0	181	0	0	3	0	0	0	65
Sign Control		Free			Free			Stop				Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2026 Total PM with Front Street Connection.syn

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	29
Future Volume (vph)	29
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	

8: Griffith Street & Front Street
2026 Total PM with Front Street Connection.syn

Intersection													
Int Delay, s/veh	2.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				↕	
Traffic Vol, veh/h	15	70	6	5	155	7	2	0	1	3	28	0	29
Future Vol, veh/h	15	70	6	5	155	7	2	0	1	3	28	0	29
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	16	76	7	5	168	8	2	0	1	3	30	0	32
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	181	0	0	93	0	0	325	313	95	0	304	312	182
Stage 1	-	-	-	-	-	-	122	122	-	0	187	187	-
Stage 2	-	-	-	-	-	-	203	191	-	0	117	125	-
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	1394	-	-	1501	-	-	628	602	962	0	648	603	861
Stage 1	-	-	-	-	-	-	882	795	-	0	815	745	-
Stage 2	-	-	-	-	-	-	799	742	-	0	888	792	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1387	-	-	1487	-	-	589	583	948	0	633	584	853
Mov Cap-2 Maneuver	-	-	-	-	-	-	589	583	-	0	633	584	-
Stage 1	-	-	-	-	-	-	863	778	-	0	801	738	-
Stage 2	-	-	-	-	-	-	763	735	-	0	872	775	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	1.3			0.2			10.4			10.4			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	674	1387	-	-	1487	-	-	729					
HCM Lane V/C Ratio	0.005	0.012	-	-	0.004	-	-	0.085					
HCM Control Delay (s)	10.4	7.6	0	-	7.4	0	-	10.4					
HCM Lane LOS	B	A	A	-	A	A	-	B					
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3					

9: Main Street & Griffith Street
 2026 Total PM with Front Street Connection.syn

							
Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	93	70	222	50	1	39	151
Future Volume (vph)	93	70	222	50	1	39	151
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	0.942		0.975				
Flt Protected	0.972						0.990
Satd. Flow (prot)	1706	0	1816	0	0	0	1844
Flt Permitted	0.972						0.990
Satd. Flow (perm)	1706	0	1816	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)	177	0	295	0	0	0	207
Sign Control	Stop		Free				Free
Intersection Summary							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	45.9%			ICU Level of Service A			
Analysis Period (min)	15						

9: Main Street & Griffith Street
2026 Total PM with Front Street Connection.syn

Intersection							
Int Delay, s/veh	3.6						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	93	70	222	50	1	39	151
Future Vol, veh/h	93	70	222	50	1	39	151
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	101	76	241	54	1	42	164
Major/Minor	Minor1	Major1		Major2			
Conflicting Flow All	525	285	0	0	-	302	0
Stage 1	275	-	-	-	-	-	-
Stage 2	250	-	-	-	-	-	-
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	513	754	-	-	-	1259	-
Stage 1	771	-	-	-	-	-	-
Stage 2	792	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	508	742	-	-	~ -41	~ -41	-
Mov Cap-2 Maneuver	508	-	-	-	-	-	-
Stage 1	766	-	-	-	-	-	-
Stage 2	790	-	-	-	-	-	-
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)	-	-	588	+	-		
HCM Lane V/C Ratio	-	-	0.301	-	-		
HCM Control Delay (s)	-	-	13.7	-	-		
HCM Lane LOS	-	-	B	-	-		
HCM 95th %tile Q(veh)	-	-	1.3	-	-		
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

10: Front Street & Harper Street
 2026 Total PM with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	18	7	0	54
Future Volume (vph)	6	0	18	7	0	54
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	0.961					
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1790	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1790	0	0	1863
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	28	0	0	59
Sign Control	Stop	Free		Free		
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2026 Total PM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	18	7	0	54
Future Vol, veh/h	6	0	18	7	0	54
Conflicting Peds, #/hr	5	132	0	70	70	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	7	0	20	8	0	59

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	158	226	0
Stage 1	94	-	-
Stage 2	64	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	833	813	-
Stage 1	930	-	-
Stage 2	959	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	773	663	-
Mov Cap-2 Maneuver	773	-	-
Stage 1	868	-	-
Stage 2	954	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	773	1395
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	9.7	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Courtesy Road (SH 42) & Harper Street
2026 Total PM with Front Street Connection.syn

						
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)	254			369	420	
Travel Time (s)	5.8			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)	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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total PM with Front Street Connection.syn

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑↑	
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 with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↘	↑↑	↘	↗
Traffic Volume (vph)	852	94	26	70	794	79	100
Future Volume (vph)	852	94	26	70	794	79	100
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				0.262		0.950	
Satd. Flow (perm)	3539	1535	0	487	3539	1761	1504
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		102					109
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	104	863	86	109
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 Effect Green (s)	71.0	71.0		81.0	81.0	11.0	10.0
Actuated g/C Ratio	0.71	0.71		0.81	0.81	0.11	0.10
v/c Ratio	0.37	0.09		0.21	0.30	0.45	0.44
Control Delay	7.0	1.5		3.4	3.3	48.4	13.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	7.0	1.5		3.4	3.3	48.4	13.9
LOS	A	A		A	A	D	B
Approach Delay	6.4				3.3	29.1	
Approach LOS	A				A	C	
Queue Length 50th (ft)	118	0		14	67	52	0

1: Main Street & S Boulder Road

2026 Total SAT with Front Street Connection.syn



Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	163	16		m23	m90	98	49
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2513	1119		502	2867	246	290
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		0.21	0.30	0.35	0.38

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: 0.45

Intersection Signal Delay: 7.1

Intersection LOS: A

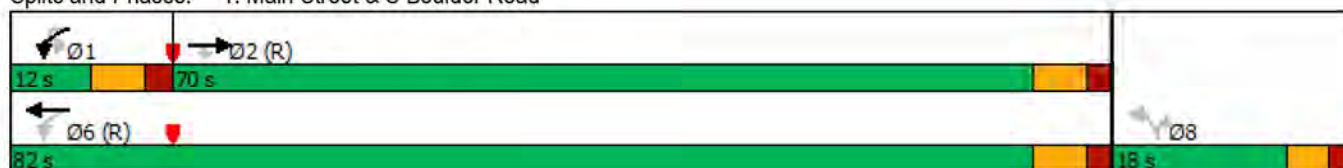
Intersection Capacity Utilization 66.1%

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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↖	↑↑				↗		
Traffic Volume (vph)	0	933	38	3	11	916	4	0	0	20	0	0
Future Volume (vph)	0	933	38	3	11	916	4	0	0	20	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	1014	41	0	15	1000	0	0	0	22	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2026 Total SAT with Front Street Connection.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Total SAT with Front Street Connection.syn

Intersection													
Int Delay, s/veh	0.2												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↓	↑↑				↑			↑
Traffic Vol, veh/h	0	933	38	3	11	916	4	0	0	20	0	0	1
Future Vol, veh/h	0	933	38	3	11	916	4	0	0	20	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	1014	41	3	12	996	4	0	0	22	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	1014	1065	0	0	-	-	522	-	-	515
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	-	-	325	650	-	-	0	0	499	0	0	505
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	524	524	-	-	-	-	492	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.2			12.7			12.2			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	492	-	-	524	-	-	498						
HCM Lane V/C Ratio	0.044	-	-	0.029	-	-	0.002						
HCM Control Delay (s)	12.7	-	-	12.1	-	-	12.2						
HCM Lane LOS	B	-	-	B	-	-	B						
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	0						

3: Cannon Circle/Private Access & S Boulder Road
2026 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	882	28	1	49	840	12	0	0	42	0
Future Volume (vph)	15	28	882	28	1	49	840	12	0	0	42	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			0.995				0.998				0.865	
Flt Protected		0.950				0.950						
Satd. Flow (prot)	0	1770	3522	0	0	1770	3532	0	0	0	1611	0
Flt Permitted		0.950				0.950						
Satd. Flow (perm)	0	1770	3522	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	989	0	0	54	926	0	0	0	46	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	43.7%						ICU Level of Service A					
Analysis Period (min)	15											

3: Cannon Circle/Private Access & S Boulder Road
 2026 Total SAT with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total SAT with Front Street Connection.syn

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	882	28	1	49	840	12	0	0	42	0	0	82	
Future Vol, veh/h	15	28	882	28	1	49	840	12	0	0	42	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	959	30	1	53	913	13	0	0	46	0	0	89	
Major/Minor	Major1				Major2				Minor1				Minor2		
Conflicting Flow All	926	936	0	0	989	999	0	0	-	-	510	-	-	478	
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	370	727	-	-	337	689	-	-	0	0	509	0	0	534	
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Platoon blocked, %			-	-			-	-							
Mov Cap-1 Maneuver	494	494	-	-	666	666	-	-	-	-	502	-	-	526	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Approach	EB				WB				NB				SB		
HCM Control Delay, s	0.6				0.6				12.9				13.2		
HCM LOS									B				B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	502	494	-	-	666	-	-	526							
HCM Lane V/C Ratio	0.091	0.095	-	-	0.082	-	-	0.169							
HCM Control Delay (s)	12.9	13	-	-	10.9	-	-	13.2							
HCM Lane LOS	B	B	-	-	B	-	-	B							
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.3	-	-	0.6							

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	21	397	473	87	252	533	135	2	160	363	199	5
Future Volume (vph)	21	397	473	87	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			0.977				0.850			0.947		
Flt Protected		0.950			0.950				0.950			
Satd. Flow (prot)	0	3433	3449	0	3433	3539	1583	0	3433	3332	0	0
Flt Permitted		0.434			0.950				0.571			
Satd. Flow (perm)	0	1568	3449	0	3433	3539	1549	0	2063	3332	0	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			22				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	455	609	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 Effect 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		2.24	0.54		0.89	0.58	0.25		1.22	0.57		
Control Delay		596.3	25.7		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		596.3	25.7		75.6	33.8	1.8		187.7	26.6		
LOS		F	C		E	C	A		F	C		
Approach Delay			269.7			40.6				62.6		
Approach LOS			F			D				E		
Queue Length 50th (ft)		~246	116		90	166	0		~71	142		

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT with Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TT	RT
Traffic Volume (vph)	110	392	273
Future Volume (vph)	110	392	273
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)			289
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	297
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 Effect 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	0.44
Control Delay	94.1	29.2	6.0
Queue Delay	0.0	0.0	0.0
Total Delay	94.1	29.2	6.0
LOS	F	C	A
Approach Delay		30.6	
Approach LOS		C	
Queue Length 50th (ft)	41	113	4

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#339	152		#163	223	10		#140	199		
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150			225		270					
Base Capacity (vph)		203	1118		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		2.24	0.54		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: 2.24

Intersection Signal Delay: 108.9

Intersection LOS: F

Intersection Capacity Utilization 88.6%

ICU Level of Service E

Analysis Period (min) 15

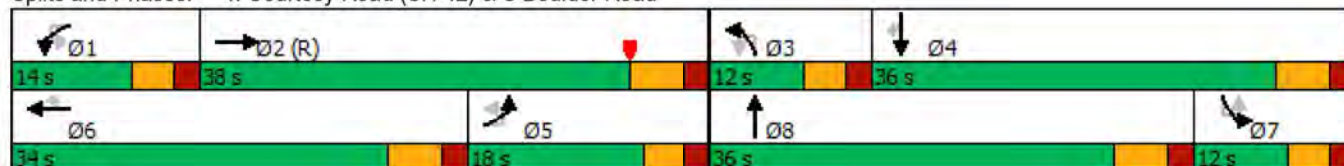
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#96	157	64
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1061	669
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	0.44
Intersection Summary			

5: Courtesy Road (SH 42) & Cannon Circle
 2026 Total SAT with Front Street Connection.syn

							
Lane Group	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	8	10	1	9	717	719	10
Future Volume (vph)	8	10	1	9	717	719	10
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				0.998	
Flt Protected	0.950			0.950			
Satd. Flow (prot)	0	1611	0	1770	1863	3532	0
Flt Permitted	0.950			0.950			
Satd. Flow (perm)	0	1611	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)	9	11	0	11	779	793	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						

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total SAT with Front Street Connection.syn

Intersection							
Int Delay, s/veh	0.2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations		↗		↘	↑	↗↘	
Traffic Vol, veh/h	8	10	1	9	717	719	10
Future Vol, veh/h	8	10	1	9	717	719	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	11	1	10	779	782	11
Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	1592	402	792	798	0	-	0
Stage 1	793	-	-	-	-	-	-
Stage 2	799	-	-	-	-	-	-
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	599	347	822	-	-	-
Stage 1	407	-	-	-	-	-	-
Stage 2	442	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	105	596	718	718	-	-	-
Mov Cap-2 Maneuver	105	-	-	-	-	-	-
Stage 1	399	-	-	-	-	-	-
Stage 2	440	-	-	-	-	-	-
Approach	EB	NB		SB			
HCM Control Delay, s	11.2	0.1		0			
HCM LOS	B						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	718	-	596	-	-		
HCM Lane V/C Ratio	0.015	-	0.018	-	-		
HCM Control Delay (s)	10.1	-	11.2	-	-		
HCM Lane LOS	B	-	B	-	-		
HCM 95th %tile Q(veh)	0	-	0.1	-	-		

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total SAT with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	7	39	2	1	6	25	673	43	11	680	44
Future Volume (vph)	14	7	39	2	1	6	25	673	43	11	680	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		0.913				0.850		0.991				0.850
Flt Protected		0.989			0.968		0.950			0.950		
Satd. Flow (prot)	0	1682	0	0	1803	1583	1770	1846	0	1770	1863	1583
Flt Permitted		0.989			0.968		0.950			0.950		
Satd. Flow (perm)	0	1682	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	65	0	0	3	7	27	779	0	12	739	48
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	54.9%											
Analysis Period (min)	15											
ICU Level of Service A												

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total SAT with Front Street Connection.syn

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	↕
Traffic Vol, veh/h	14	7	39	2	1	6	25	673	43	11	680	44
Future Vol, veh/h	14	7	39	2	1	6	25	673	43	11	680	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	42	2	1	7	27	732	47	12	739	48
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1577	1596	739	1622	1621	756	787	0	0	779	0	0
Stage 1	763	763	-	810	810	-	-	-	-	-	-	-
Stage 2	814	833	-	812	811	-	-	-	-	-	-	-
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	89	107	417	82	103	408	832	-	-	838	-	-
Stage 1	397	413	-	374	393	-	-	-	-	-	-	-
Stage 2	372	384	-	373	393	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	84	102	417	67	98	408	832	-	-	838	-	-
Mov Cap-2 Maneuver	84	102	-	67	98	-	-	-	-	-	-	-
Stage 1	384	407	-	362	380	-	-	-	-	-	-	-
Stage 2	353	372	-	324	387	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	35.4		27.7		0.3		0.1					
HCM LOS	E		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	832	-	-	182 75 408	838	-	-					
HCM Lane V/C Ratio	0.033	-	-	0.358 0.043 0.016	0.014	-	-					
HCM Control Delay (s)	9.5	-	-	35.4 55.2 14	9.4	-	-					
HCM Lane LOS	A	-	-	E F B	A	-	-					
HCM 95th %tile Q(veh)	0.1	-	-	1.5 0.1 0	0	-	-					

7: Cannon Street & Griffith Street
2026 Total SAT with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	49	24	15	61	1	23	0	10	1	0	1
Future Volume (vph)	0	49	24	15	61	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		0.956			0.998			0.959			0.932	
Flt Protected					0.990			0.966			0.976	
Satd. Flow (prot)	0	1781	0	0	1840	0	0	1726	0	0	1694	0
Flt Permitted					0.990			0.966			0.976	
Satd. Flow (perm)	0	1781	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	79	0	0	83	0	0	36	0	0	2	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.7%						ICU Level of Service A					
Analysis Period (min)	15											

7: Cannon Street & Griffith Street
2026 Total SAT with Front Street Connection.syn

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	0	49	24	15	61	1	23	0	10	1	0	1
Future Vol, veh/h	0	49	24	15	61	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	53	26	16	66	1	25	0	11	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	84	0	0	175	175	76	181	188	77
Stage 1	-	-	-	-	-	-	71	71	-	104	104	-
Stage 2	-	-	-	-	-	-	104	104	-	77	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	1528	-	-	1513	-	-	788	718	985	781	707	984
Stage 1	-	-	-	-	-	-	939	836	-	902	809	-
Stage 2	-	-	-	-	-	-	902	809	-	932	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1521	-	-	1506	-	-	773	703	976	758	692	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	773	703	-	758	692	-
Stage 1	-	-	-	-	-	-	934	832	-	897	796	-
Stage 2	-	-	-	-	-	-	887	796	-	917	821	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			9.6			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	825	1521	-	-	1506	-	-	853				
HCM Lane V/C Ratio	0.043	-	-	-	0.011	-	-	0.003				
HCM Control Delay (s)	9.6	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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	57	3	1	77	7	8	0	0	18	0	25
Future Volume (vph)	12	57	3	1	77	7	8	0	0	18	0	25
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		0.995			0.988						0.922	
Flt Protected		0.992			0.999			0.950			0.979	
Satd. Flow (prot)	0	1839	0	0	1839	0	0	1770	0	0	1681	0
Flt Permitted		0.992			0.999			0.950			0.979	
Satd. Flow (perm)	0	1839	0	0	1839	0	0	1770	0	0	1681	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	78	0	0	93	0	0	9	0	0	47	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.9%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2026 Total SAT with Front Street Connection.syn

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	57	3	1	77	7	8	0	0	18	0	25
Future Vol, veh/h	12	57	3	1	77	7	8	0	0	18	0	25
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	13	62	3	1	84	8	9	0	0	20	0	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	97	0	0	75	0	0	209	199	79	190	196	98
Stage 1	-	-	-	-	-	-	100	100	-	95	95	-
Stage 2	-	-	-	-	-	-	109	99	-	95	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	1496	-	-	1524	-	-	748	697	981	770	699	958
Stage 1	-	-	-	-	-	-	906	812	-	912	816	-
Stage 2	-	-	-	-	-	-	896	813	-	912	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1509	-	-	711	680	967	757	682	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	711	680	-	757	682	-
Stage 1	-	-	-	-	-	-	890	797	-	899	811	-
Stage 2	-	-	-	-	-	-	865	808	-	899	796	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			0.1			10.1			9.4		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	711	1489	-	-	1509	-	-	858				
HCM Lane V/C Ratio	0.012	0.009	-	-	0.001	-	-	0.054				
HCM Control Delay (s)	10.1	7.4	0	-	7.4	0	-	9.4				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2				

9: Main Street & Griffith Street
2026 Total SAT with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	66	47	137	52	18	141
Future Volume (vph)	66	47	137	52	18	141
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	0.944		0.963			
Flt Protected	0.972					0.994
Satd. Flow (prot)	1709	0	1794	0	0	1852
Flt Permitted	0.972					0.994
Satd. Flow (perm)	1709	0	1794	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)	123	0	206	0	0	173
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					

9: Main Street & Griffith Street
2026 Total SAT with Front Street Connection.syn

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	47	137	52	18	141
Future Vol, veh/h	66	47	137	52	18	141
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	72	51	149	57	20	153
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	394	197	0	0	223	0
Stage 1	195	-	-	-	-	-
Stage 2	199	-	-	-	-	-
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	844	-	-	1346	-
Stage 1	838	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	587	829	-	-	1324	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.6	0		0.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	668	1324	-	
HCM Lane V/C Ratio	-	-	0.184	0.015	-	
HCM Control Delay (s)	-	-	11.6	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.7	0	-	

10: Front Street & Harper Street
 2026 Total SAT with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	10	9	0	39
Future Volume (vph)	4	0	10	9	0	39
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			0.936			
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1744	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1744	0	0	1863
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	21	0	0	42
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2026 Total SAT with Front Street Connection.syn

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	10	9	0	39
Future Vol, veh/h	4	0	10	9	0	39
Conflicting Peds, #/hr	5	132	0	70	70	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	4	0	11	10	0	42
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	133	218	0	0	91	0
Stage 1	86	-	-	-	-	-
Stage 2	47	-	-	-	-	-
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	861	822	-	-	1504	-
Stage 1	937	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	799	671	-	-	1404	-
Mov Cap-2 Maneuver	799	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.5	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	799	1404	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	-	-	9.5	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

11: Courtesy Road (SH 42) & Harper Street
 2026 Total SAT with Front Street Connection.syn

						
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)	242			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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total SAT with Front Street Connection.syn

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
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 with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↘	↑↑	↘	↘
Traffic Volume (vph)	1191	111	8	79	1544	89	104
Future Volume (vph)	1191	111	8	79	1544	89	104
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)		95					113
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)	1295	121	0	95	1678	97	113
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 Effect Green (s)	85.1	85.1		97.9	97.9	14.1	13.1
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.12	0.11
v/c Ratio	0.52	0.11		0.27	0.58	0.47	0.43
Control Delay	9.4	2.2		4.9	7.0	56.2	13.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	9.4	2.2		4.9	7.0	56.2	13.8
LOS	A	A		A	A	E	B
Approach Delay	8.8				6.9	33.4	
Approach LOS	A				A	C	
Queue Length 50th (ft)	238	6		23	235	69	0

1: Main Street & S Boulder Road
 2045 Total AM with Front Street Connection.syn

	→	↘	↶	↙	←	↵	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	298	25		m27	m259	124	54
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2509	1113		368	2887	249	298
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		0.26	0.58	0.39	0.38

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: 9.3

Intersection LOS: A

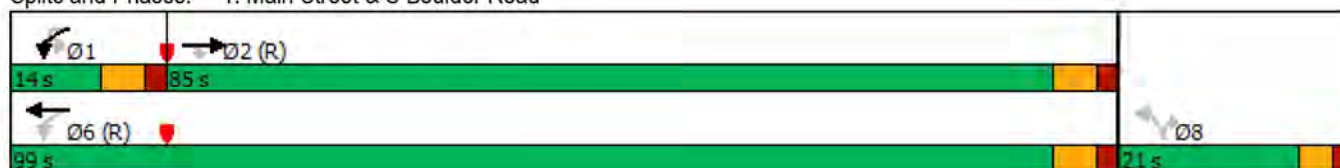
Intersection Capacity Utilization 68.2%

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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↖	↑↑				↗		
Traffic Volume (vph)	0	1127	41	2	12	1689	5	0	0	22	0	0
Future Volume (vph)	0	1127	41	2	12	1689	5	0	0	22	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	1225	45	0	15	1841	0	0	0	24	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	58.4%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road
2045 Total AM with Front Street Connection.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2045 Total AM with Front Street Connection.syn

Intersection													
Int Delay, s/veh	0.2												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↓	↑↑				↑			↑
Traffic Vol, veh/h	0	1127	41	2	12	1689	5	0	0	22	0	0	11
Future Vol, veh/h	0	1127	41	2	12	1689	5	0	0	22	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	1225	45	2	13	1836	5	0	0	24	0	0	12
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	1225	1280	0	0	-	-	628	-	-	936
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	-	-	238	538	-	-	0	0	426	0	0	266
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	446	446	-	-	-	-	420	-	-	262
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.1			14.1			19.4			
HCM LOS							B			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	420	-	-	446	-	-	262						
HCM Lane V/C Ratio	0.057	-	-	0.034	-	-	0.046						
HCM Control Delay (s)	14.1	-	-	13.3	-	-	19.4						
HCM Lane LOS	B	-	-	B	-	-	C						
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	-	0.1						

3: Cannon Circle/Private Access & S Boulder Road
2045 Total AM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	21	1126	11	1	25	1663	8	0	0	33	0
Future Volume (vph)	6	21	1126	11	1	25	1663	8	0	0	33	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			0.999				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	1236	0	0	28	1817	0	0	0	36	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 57.8%	ICU Level of Service B											
Analysis Period (min) 15												

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total AM with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total AM with Front Street Connection.syn

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	1126	11	1	25	1663	8	0	0	33	0	0	36
Future Vol, veh/h	6	21	1126	11	1	25	1663	8	0	0	33	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	1224	12	1	27	1808	9	0	0	36	0	0	39

Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1816	1827	0	0	1236	1246	0	0	-	-	633	-	-	924
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	98	331	-	-	234	554	-	-	0	0	422	0	0	271
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	201	201	-	-	518	518	-	-	-	-	416	-	-	267
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	14.5	20.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	416	201	-	-	518	-	-	267
HCM Lane V/C Ratio	0.086	0.146	-	-	0.055	-	-	0.147
HCM Control Delay (s)	14.5	26	-	-	12.3	-	-	20.8
HCM Lane LOS	B	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 with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	13	393	546	171	332	871	195	1	236	603	258	7
Future Volume (vph)	13	393	546	171	332	871	195	1	236	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		0.302			0.950				0.333			
Satd. Flow (perm)	0	1091	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	441	593	186	361	947	212	0	258	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 Effect 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		3.04	0.54	0.31	0.80	0.87	0.35		2.15	0.52	0.38	
Control Delay		953.0	29.3	9.8	65.1	49.0	8.5		568.5	36.8	10.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		953.0	29.3	9.8	65.1	49.0	8.5		568.5	36.8	10.0	
LOS		F	C	A	E	D	A		F	D	B	
Approach Delay			360.3			47.2				145.5		
Approach LOS			F			D				F		
Queue Length 50th (ft)		~309	200	45	141	364	16		~166	241	6	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗
Traffic Volume (vph)	164	738	564
Future Volume (vph)	164	738	564
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)			258
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	802	613
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 Effect 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	0.90
Control Delay	321.4	39.2	40.4
Queue Delay	0.0	0.0	0.0
Total Delay	321.4	39.2	40.4
LOS	F	D	D
Approach Delay		72.4	
Approach LOS		E	
Queue Length 50th (ft)	~104	284	288

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#417	262	97	#207	#456	75		#249	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		3.04	0.54	0.31	0.79	0.87	0.35		2.15	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: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.04

Intersection Signal Delay: 144.7

Intersection LOS: F

Intersection Capacity Utilization 93.0%

ICU Level of Service F

Analysis Period (min) 15

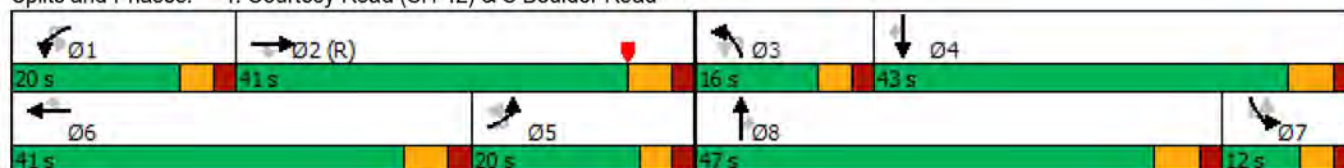
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#180	356	#521
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	120	1150	679
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	0.90
Intersection Summary			

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total AM with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	17	0	1070	1233	1
Future Volume (vph)	0	17	0	1070	1233	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		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)	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	18	0	1163	1341	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.1%			ICU Level of Service A		
Analysis Period (min)	15					

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total AM with Front Street Connection.syn

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	17	0	1070	1233	1
Future Vol, veh/h	0	17	0	1070	1233	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	18	0	1163	1340	1
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	676	-	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	396	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	394	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	14.6	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	394	-	-		
HCM Lane V/C Ratio	-	0.047	-	-		
HCM Control Delay (s)	-	14.6	-	-		
HCM Lane LOS	-	B	-	-		
HCM 95th %tile Q(veh)	-	0.1	-	-		

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total AM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	77	1	1	1	40	1039	4	5	1150	83
Future Volume (vph)	29	0	77	1	1	1	40	1039	4	5	1150	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	0.757			0.702			0.950			0.950		
Satd. Flow (perm)	1410	1583	0	1308	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	84	0	1	2	0	43	1133	0	5	1250	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 Effect Green (s)	7.0	7.0		7.0	7.0		7.0	46.0		6.3	43.6	43.6
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.12	0.77		0.10	0.73	0.73
v/c Ratio	0.20	0.20		0.01	0.01		0.21	0.42		0.03	0.49	0.08
Control Delay	27.1	1.0		24.0	21.0		26.8	4.4		28.0	5.1	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	27.1	1.0		24.0	21.0		26.8	4.4		28.0	5.1	0.6
LOS	C	A		C	C		C	A		C	A	A
Approach Delay		8.2			22.0			5.3			4.9	
Approach LOS		A			C			A			A	
Queue Length 50th (ft)	11	0		0	0		14	54		3	161	2

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total AM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	26	0		4	6		40	162		m5	278	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	164	425		152	201		206	2711		186	2571	1168
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.20	0.20		0.01	0.01		0.21	0.42		0.03	0.49	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: 0.49

Intersection Signal Delay: 5.2

Intersection LOS: A

Intersection Capacity Utilization 48.2%

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

 Ø1	 Ø2 (R)	 Ø4
10 s	39 s	11 s
 Ø6	 Ø5	 Ø8
36 s	11 s	11 s

7: Cannon Street & Griffith Street
2045 Total AM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	84	12	14	93	2	19	0	19	0	0	1
Future Volume (vph)	0	84	12	14	93	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		0.983			0.998			0.932			0.865	
Flt Protected					0.994			0.976				
Satd. Flow (prot)	0	1831	0	0	1848	0	0	1694	0	0	1611	0
Flt Permitted					0.994			0.976				
Satd. Flow (perm)	0	1831	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	104	0	0	118	0	0	42	0	0	1	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2045 Total AM with Front Street Connection.syn

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	84	12	14	93	2	19	0	19	0	0	1
Future Vol, veh/h	0	84	12	14	93	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	91	13	15	101	2	21	0	21	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	109	0	0	241	241	108	250	246	112
Stage 1	-	-	-	-	-	-	103	103	-	137	137	-
Stage 2	-	-	-	-	-	-	138	138	-	113	109	-
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	1483	-	-	1481	-	-	713	660	946	703	656	941
Stage 1	-	-	-	-	-	-	903	810	-	866	783	-
Stage 2	-	-	-	-	-	-	865	782	-	892	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1476	-	-	1474	-	-	699	646	937	676	642	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	646	-	676	642	-
Stage 1	-	-	-	-	-	-	898	806	-	862	770	-
Stage 2	-	-	-	-	-	-	850	769	-	868	801	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1			9.7			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	801	1476	-	-	1474	-	-	932				
HCM Lane V/C Ratio	0.052	-	-	-	0.01	-	-	0.001				
HCM Control Delay (s)	9.7	0	-	-	7.5	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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	74	2	3	127	4	6	0	3	24	0	45
Future Volume (vph)	6	74	2	3	127	4	6	0	3	24	0	45
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			0.996			0.959			0.912	
Flt Protected		0.996			0.999			0.966			0.983	
Satd. Flow (prot)	0	1850	0	0	1853	0	0	1726	0	0	1670	0
Flt Permitted		0.996			0.999			0.966			0.983	
Satd. Flow (perm)	0	1850	0	0	1853	0	0	1726	0	0	1670	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	89	0	0	145	0	0	10	0	0	75	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2045 Total AM with Front Street Connection.syn

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	74	2	3	127	4	6	0	3	24	0	45
Future Vol, veh/h	6	74	2	3	127	4	6	0	3	24	0	45
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	80	2	3	138	4	7	0	3	26	0	49
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	92	0	0	281	258	96	253	257	150
Stage 1	-	-	-	-	-	-	105	105	-	151	151	-
Stage 2	-	-	-	-	-	-	176	153	-	102	106	-
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	1435	-	-	1503	-	-	671	646	960	700	647	896
Stage 1	-	-	-	-	-	-	901	808	-	851	772	-
Stage 2	-	-	-	-	-	-	826	771	-	904	807	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1428	-	-	1489	-	-	621	632	946	687	633	887
Mov Cap-2 Maneuver	-	-	-	-	-	-	621	632	-	687	633	-
Stage 1	-	-	-	-	-	-	888	796	-	842	767	-
Stage 2	-	-	-	-	-	-	775	766	-	892	795	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.2			10.2			9.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	701	1428	-	-	1489	-	-	805				
HCM Lane V/C Ratio	0.014	0.005	-	-	0.002	-	-	0.093				
HCM Control Delay (s)	10.2	7.5	0	-	7.4	0	-	9.9				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3				

9: Main Street & Griffith Street
 2045 Total AM with Front Street Connection.syn

								
Lane Group	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	59	81	1	160	64	20	117
Future Volume (vph)	1	59	81	1	160	64	20	117
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			0.961			
Flt Protected		0.979						0.993
Satd. Flow (prot)	0	1681	0	0	1790	0	0	1850
Flt Permitted		0.979						0.993
Satd. Flow (perm)	0	1681	0	0	1790	0	0	1850
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	153	0	0	245	0	0	149
Sign Control		Stop			Free			Free
Intersection Summary								
Area Type:	Other							
Control Type:	Unsignalized							
Intersection Capacity Utilization	41.4%				ICU Level of Service A			
Analysis Period (min)	15							

9: Main Street & Griffith Street
2045 Total AM with Front Street Connection.syn

Intersection								
Int Delay, s/veh	4.5							
Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Vol, veh/h	1	59	81	1	160	64	20	117
Future Vol, veh/h	1	59	81	1	160	64	20	117
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	64	88	1	174	70	22	127
Major/Minor	Minor1	Major1			Major2			
Conflicting Flow All	0	451	411	-	0	0	314	0
Stage 1	0	279	-	-	-	-	-	-
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	566	641	-	-	-	1246	-
Stage 1	0	768	-	-	-	-	-	-
Stage 2	0	858	-	-	-	-	-	-
Platoon blocked, %	-				-	-		-
Mov Cap-1 Maneuver	0	517	523	-	-	-	1163	-
Mov Cap-2 Maneuver	0	517	-	-	-	-	-	-
Stage 1	0	702	-	-	-	-	-	-
Stage 2	0	857	-	-	-	-	-	-
Approach	WB	NB			SB			
HCM Control Delay, s	14.8				1.2			
HCM LOS	B							
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT				
Capacity (veh/h)	-	-	520	1163	-			
HCM Lane V/C Ratio	-	-	0.293	0.019	-			
HCM Control Delay (s)	-	-	14.8	8.2	0			
HCM Lane LOS	-	-	B	A	A			
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-			

10: Front Street & Harper Street
 2045 Total AM with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	7	3	0	63
Future Volume (vph)	6	0	7	3	0	63
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	0.963					
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1794	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1794	0	0	1863
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	11	0	0	68
Sign Control	Stop	Free		Free		
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2045 Total AM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	7	3	0	63
Future Vol, veh/h	6	0	7	3	0	63
Conflicting Peds, #/hr	5	132	0	70	70	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	7	0	8	3	0	68

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	153	212	0
Stage 1	80	-	-
Stage 2	73	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	839	828	-
Stage 1	943	-	-
Stage 2	950	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	779	676	-
Mov Cap-2 Maneuver	779	-	-
Stage 1	880	-	-
Stage 2	945	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	779	1416
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	9.7	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Courtesy Road (SH 42) & Harper Street
2045 Total AM with Front Street Connection.syn

								
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (vph)	0	19	0	1060	1227	2		
Future Volume (vph)	0	19	0	1060	1227	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	1336	0		
Sign Control	Stop			Free	Free			
Intersection Summary								
Area Type:	Other							
Control Type:	Unsignalized							
Intersection Capacity Utilization	44.0%			ICU Level of Service A				
Analysis Period (min)	15							

11: Courtesy Road (SH 42) & Harper Street
2045 Total AM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	19	0	1060	1227	2
Future Vol, veh/h	0	19	0	1060	1227	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	1334	2

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	-	668	-	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	401	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	401	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt NBT EBLn1 SBT SBR

Capacity (veh/h)	-	401	-	-
HCM Lane V/C Ratio	-	0.052	-	-
HCM Control Delay (s)	-	14.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

1: Main Street & S Boulder Road
2045 Total PM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↘	↑↑	↘	↘
Traffic Volume (vph)	1653	102	21	76	1294	102	178
Future Volume (vph)	1653	102	21	76	1294	102	178
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				0.072		0.950	
Satd. Flow (perm)	3539	1531	0	134	3539	1759	1484
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		63					93
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)	1797	111	0	106	1407	111	193
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 Effect Green (s)	85.0	85.0		98.0	98.0	14.0	13.0
Actuated g/C Ratio	0.71	0.71		0.82	0.82	0.12	0.11
v/c Ratio	0.72	0.10		0.46	0.49	0.54	0.79
Control Delay	13.1	3.3		12.8	7.6	59.2	49.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	13.1	3.3		12.8	7.6	59.2	49.3
LOS	B	A		B	A	E	D
Approach Delay	12.5				8.0	52.9	
Approach LOS	B				A	D	
Queue Length 50th (ft)	403	10		39	224	81	75

1: Main Street & S Boulder Road
 2045 Total PM with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	531	30		m47	m235	139	#170
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2506	1102		245	2889	249	278
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	0.72	0.10		0.43	0.49	0.45	0.69

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: 0.79

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 84.4%

ICU Level of Service E

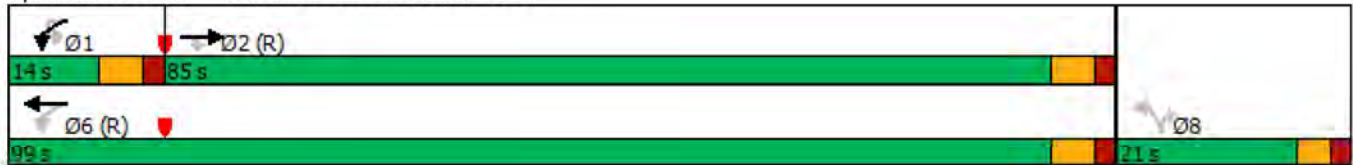
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↘	↑↑				↗		
Traffic Volume (vph)	0	1789	73	4	27	1406	5	0	0	29	0	0
Future Volume (vph)	0	1789	73	4	27	1406	5	0	0	29	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	1945	79	0	33	1533	0	0	0	32	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	61.0%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road
2045 Total PM with Front Street Connection.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2045 Total PM with Front Street Connection.syn

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	1789	73	4	27	1406	5	0	0	29	0	0	5
Future Vol, veh/h	0	1789	73	4	27	1406	5	0	0	29	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	1945	79	4	29	1528	5	0	0	32	0	0	5
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	1945	2034	0	0	-	-	988	-	-	782
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	274	-	-	0	0	246	0	0	337
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	-	-	-	199	199	-	-	-	-	242	-	-	332
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.6			22.1			16			
HCM LOS							C			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	242	-	-	199	-	-	332						
HCM Lane V/C Ratio	0.13	-	-	0.169	-	-	0.016						
HCM Control Delay (s)	22.1	-	-	26.8	-	-	16						
HCM Lane LOS	C	-	-	D	-	-	C						
HCM 95th %tile Q(veh)	0.4	-	-	0.6	-	-	0.1						

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	48	1805	49	2	59	1433	12	0	0	59	0
Future Volume (vph)	23	48	1805	49	2	59	1433	12	0	0	59	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	2015	0	0	66	1571	0	0	0	64	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	70.5%						ICU Level of Service C					
Analysis Period (min)	15											

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total PM with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total PM with Front Street Connection.syn

Intersection															
Int Delay, s/veh	1.8														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations															
Traffic Vol, veh/h	23	48	1805	49	2	59	1433	12	0	0	59	0	0	66	
Future Vol, veh/h	23	48	1805	49	2	59	1433	12	0	0	59	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	1962	53	2	64	1558	13	0	0	64	0	0	72	
Major/Minor	Major1				Major2				Minor1				Minor2		
Conflicting Flow All	1571	1581	0	0	2015	2025	0	0	-	-	1023	-	-	801	
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	142	412	-	-	72	277	-	-	0	0	233	0	0	327	
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-	
Platoon blocked, %			-	-			-	-							
Mov Cap-1 Maneuver	221	221	-	-	242	242	-	-	-	-	230	-	-	322	
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Approach	EB				WB				NB				SB		
HCM Control Delay, s	1.1				1				26.6				19.4		
HCM LOS									D				C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	230	221	-	-	242	-	-	322							
HCM Lane V/C Ratio	0.279	0.349	-	-	0.274	-	-	0.223							
HCM Control Delay (s)	26.6	29.8	-	-	25.4	-	-	19.4							
HCM Lane LOS	D	D	-	-	D	-	-	C							
HCM 95th %tile Q(veh)	1.1	1.5	-	-	1.1	-	-	0.8							

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations		↔↔	↕↕	↗	↔↔	↕↕	↗		↔↔	↕↕	↗	
Traffic Volume (vph)	22	750	958	185	453	830	258	1	188	910	328	12
Future Volume (vph)	22	750	958	185	453	830	258	1	188	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		0.316			0.950				0.286			
Satd. Flow (perm)	0	1142	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	839	1041	201	492	902	280	0	205	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 Effect 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		4.42	0.91	0.32	1.23	0.93	0.49		1.71	0.91	0.53	
Control Delay		1559.4	41.9	6.7	167.8	58.5	14.5		379.3	48.3	13.1	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
Total Delay		1559.4	41.9	6.7	167.8	58.5	14.5		379.3	48.3	13.1	
LOS		F	D	A	F	E	B		F	D	B	
Approach Delay			650.3			83.3				83.9		
Approach LOS			F			F				F		
Queue Length 50th (ft)		~627	407	44	~242	358	50		~121	395	63	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM with Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
Traffic Volume (vph)	177	685	430
Future Volume (vph)	177	685	430
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)			316
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	745	467
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 Effect Green (s)	14.0	37.0	37.0
Actuated g/C Ratio	0.12	0.31	0.31
v/c Ratio	1.68	0.68	0.67
Control Delay	372.3	40.2	16.4
Queue Delay	0.0	0.0	0.0
Total Delay	372.3	40.2	16.4
LOS	F	D	B
Approach Delay		80.4	
Approach LOS		F	
Queue Length 50th (ft)	~119	265	97

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#757	#531	m63	#351	#483	133		#199	#516	125	
Internal Link Dist (ft)			385			1735				338		
Turn Bay Length (ft)		150		100	225		270					
Base Capacity (vph)		190	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		4.42	0.91	0.32	1.23	0.93	0.49		1.71	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: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 4.42

Intersection Signal Delay: 258.3

Intersection LOS: F

Intersection Capacity Utilization 94.9%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

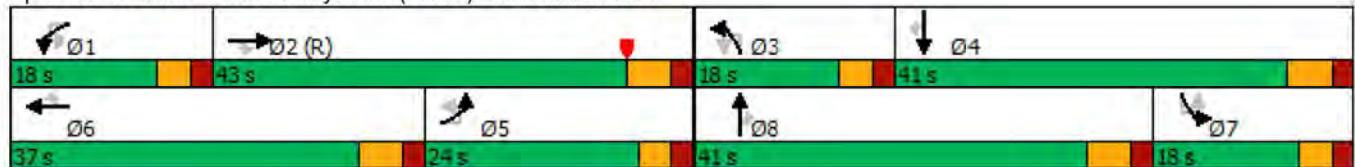
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Courtesy Road (SH 42) & S Boulder Road



4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#199	335	222
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	122	1091	698
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.68	0.68	0.67
Intersection Summary			

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total PM with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	0	19	0	1447	1305	9
Future Volume (vph)	0	19	0	1447	1305	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	21	0	1573	1428	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.4%			ICU Level of Service A		
Analysis Period (min)	15					

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total PM with Front Street Connection.syn

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	19	0	1447	1305	9
Future Vol, veh/h	0	19	0	1447	1305	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	21	0	1573	1418	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	719	-	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	371	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	369	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.3	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 369		-	-		
HCM Lane V/C Ratio	- 0.056		-	-		
HCM Control Delay (s)	- 15.3		-	-		
HCM Lane LOS	- C		-	-		
HCM 95th %tile Q(veh)	- 0.2		-	-		

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	17	0	75	1	1	1	26	1404	2	1	1234
Future Volume (vph)	2	17	0	75	1	1	1	26	1404	2	1	1234
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		0.757			0.704			0.950			0.950	
Satd. Flow (perm)	0	1410	1583	0	1311	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	82	0	1	2	0	28	1528	0	1	1341
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 Effect Green (s)		7.0	7.0		7.0	7.0		7.0	46.0		6.3	43.6
Actuated g/C Ratio		0.12	0.12		0.12	0.12		0.12	0.77		0.10	0.73
v/c Ratio		0.12	0.19		0.01	0.01		0.14	0.56		0.01	0.52
Control Delay		25.6	1.0		24.0	21.0		25.6	5.7		29.0	6.8
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		25.6	1.0		24.0	21.0		25.6	5.7		29.0	6.8
LOS		C	A		C	C		C	A		C	A
Approach Delay			5.8			22.0			6.1			6.3
Approach LOS			A			C			A			A
Queue Length 50th (ft)		7	0		0	0		9	88		1	231

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total PM with Front Street Connection.syn

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)	43.6
Actuated g/C Ratio	0.73
v/c Ratio	0.11
Control Delay	1.9
Queue Delay	0.0
Total Delay	1.9
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	15

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total PM with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		m19	0		4	6		30	261		m1	m268
Internal Link Dist (ft)			359			201			300			289
Turn Bay Length (ft)		50			50			225			500	
Base Capacity (vph)		164	425		152	201		206	2713		186	2571
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	0.19		0.01	0.01		0.14	0.56		0.01	0.52

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: 0.56

Intersection Signal Delay: 6.2

Intersection LOS: A

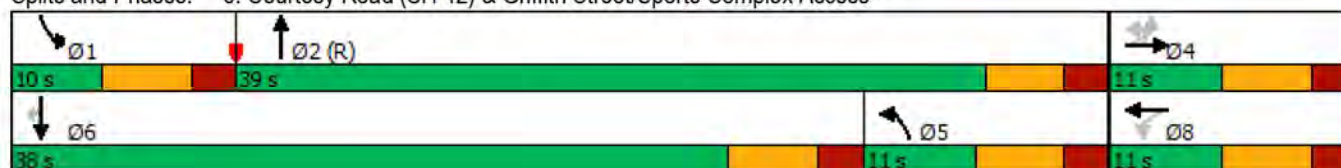
Intersection Capacity Utilization 53.3%

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



6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total PM with Front Street Connection.syn



Lane Group	SBR
Queue Length 95th (ft)	m23
Internal Link Dist (ft)	
Turn Bay Length (ft)	273
Base Capacity (vph)	1168
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.11
Intersection Summary	

7: Cannon Street & Griffith Street
2045 Total PM with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	2	72	22	1	27	126	1	19	1	11	0	2
Future Volume (vph)	2	72	22	1	27	126	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		0.969				0.999			0.952			
Flt Protected		0.999				0.991			0.970			
Satd. Flow (prot)	0	1803	0	0	0	1844	0	0	1720	0	0	1863
Flt Permitted		0.999				0.991			0.970			
Satd. Flow (perm)	0	1803	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	104	0	0	0	168	0	0	34	0	0	2
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.9%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2045 Total PM with Front Street Connection.syn

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	

7: Cannon Street & Griffith Street
2045 Total PM with Front Street Connection.syn

Intersection													
Int Delay, s/veh	1.3												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕				↕			↕			↕	
Traffic Vol, veh/h	2	72	22	1	27	126	1	19	1	11	0	2	0
Future Vol, veh/h	2	72	22	1	27	126	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	78	24	1	29	137	1	21	1	12	0	2	0
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	143	0	0	-	107	0	0	301	302	100	307	314	148
Stage 1	-	-	-	-	-	-	-	99	99	-	201	203	-
Stage 2	-	-	-	-	-	-	-	202	203	-	106	111	-
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	1440	-	-	-	1484	-	-	651	611	956	645	601	899
Stage 1	-	-	-	-	-	-	-	907	813	-	801	733	-
Stage 2	-	-	-	-	-	-	-	800	733	-	900	804	-
Platoon blocked, %		-	-			-	-						
Mov Cap-1 Maneuver	1433	-	-	~-29	~-29	-	-	643	604	947	630	594	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	643	604	-	630	594	-
Stage 1	-	-	-	-	-	-	-	902	808	-	796	729	-
Stage 2	-	-	-	-	-	-	-	794	729	-	882	799	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0.2						10.2			11.1			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	724	1433	-	-	+	-	-	594					
HCM Lane V/C Ratio	0.047	0.002	-	-	-	-	-	0.004					
HCM Control Delay (s)	10.2	7.5	0	-	-	-	-	11.1					
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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	66	6	5	146	7	2	0	1	3	36	0
Future Volume (vph)	15	66	6	5	146	7	2	0	1	3	36	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		0.990			0.994			0.955				0.942
Flt Protected		0.992			0.999			0.968				0.972
Satd. Flow (prot)	0	1829	0	0	1850	0	0	1722	0	0	0	1706
Flt Permitted		0.992			0.999			0.968				0.972
Satd. Flow (perm)	0	1829	0	0	1850	0	0	1722	0	0	0	1706
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	95	0	0	172	0	0	3	0	0	0	74
Sign Control		Free			Free			Stop				Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2045 Total PM with Front Street Connection.syn

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	29
Future Volume (vph)	29
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	

8: Griffith Street & Front Street
2045 Total PM with Front Street Connection.syn

Intersection													
Int Delay, s/veh	2.8												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	15	66	6	5	146	7	2	0	1	3	36	0	29
Future Vol, veh/h	15	66	6	5	146	7	2	0	1	3	36	0	29
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	16	72	7	5	159	8	2	0	1	3	39	0	32
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	172	0	0	89	0	0	312	300	91	0	291	299	173
Stage 1	-	-	-	-	-	-	118	118	-	0	178	178	-
Stage 2	-	-	-	-	-	-	194	182	-	0	113	121	-
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	1405	-	-	1506	-	-	641	612	967	0	661	613	871
Stage 1	-	-	-	-	-	-	887	798	-	0	824	752	-
Stage 2	-	-	-	-	-	-	808	749	-	0	892	796	-
Platoon blocked, %		-	-		-	-				-			
Mov Cap-1 Maneuver	1398	-	-	1492	-	-	601	593	953	0	646	594	863
Mov Cap-2 Maneuver	-	-	-	-	-	-	601	593	-	0	646	594	-
Stage 1	-	-	-	-	-	-	868	780	-	0	810	745	-
Stage 2	-	-	-	-	-	-	772	742	-	0	876	778	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	1.3			0.2			10.3			10.5			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	685	1398	-	-	1492	-	-	728					
HCM Lane V/C Ratio	0.005	0.012	-	-	0.004	-	-	0.097					
HCM Control Delay (s)	10.3	7.6	0	-	7.4	0	-	10.5					
HCM Lane LOS	B	A	A	-	A	A	-	B					
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3					

9: Main Street & Griffith Street
 2045 Total PM with Front Street Connection.syn

							
Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	93	61	222	50	1	35	151
Future Volume (vph)	93	61	222	50	1	35	151
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	0.947		0.975				
Flt Protected	0.971						0.990
Satd. Flow (prot)	1713	0	1816	0	0	0	1844
Flt Permitted	0.971						0.990
Satd. Flow (perm)	1713	0	1816	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)	167	0	295	0	0	0	203
Sign Control	Stop		Free				Free
Intersection Summary							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	45.2%			ICU Level of Service A			
Analysis Period (min)	15						

9: Main Street & Griffith Street
 2045 Total PM with Front Street Connection.syn

Intersection							
Int Delay, s/veh	3.4						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	93	61	222	50	1	35	151
Future Vol, veh/h	93	61	222	50	1	35	151
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	101	66	241	54	1	38	164
Major/Minor	Minor1	Major1		Major2			
Conflicting Flow All	517	285	0	0	-	302	0
Stage 1	275	-	-	-	-	-	-
Stage 2	242	-	-	-	-	-	-
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	518	754	-	-	-	1259	-
Stage 1	771	-	-	-	-	-	-
Stage 2	798	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	513	742	-	-	~ -37	~ -37	-
Mov Cap-2 Maneuver	513	-	-	-	-	-	-
Stage 1	766	-	-	-	-	-	-
Stage 2	796	-	-	-	-	-	-
Approach	WB	NB		SB			
HCM Control Delay, s	13.6	0					
HCM LOS	B						
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT		
Capacity (veh/h)	-	-	584	+	-		
HCM Lane V/C Ratio	-	-	0.287	-	-		
HCM Control Delay (s)	-	-	13.6	-	-		
HCM Lane LOS	-	-	B	-	-		
HCM 95th %tile Q(veh)	-	-	1.2	-	-		
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

10: Front Street & Harper Street
 2045 Total PM with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	18	7	0	62
Future Volume (vph)	6	0	18	7	0	62
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			0.961			
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1790	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1790	0	0	1863
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	28	0	0	67
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2045 Total PM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	18	7	0	62
Future Vol, veh/h	6	0	18	7	0	62
Conflicting Peds, #/hr	5	132	0	70	70	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	7	0	20	8	0	67

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	166	226	0
Stage 1	94	-	-
Stage 2	72	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	824	813	-
Stage 1	930	-	-
Stage 2	951	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	765	663	-
Mov Cap-2 Maneuver	765	-	-
Stage 1	868	-	-
Stage 2	946	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	765	1395
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	9.7	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Courtesy Road (SH 42) & Harper Street
 2045 Total PM with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	87	0	1400	1295	8
Future Volume (vph)	0	87	0	1400	1295	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)	223			369	420	
Travel Time (s)	5.1			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	1417	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.1%			ICU Level of Service A		
Analysis Period (min)	15					

11: Courtesy Road (SH 42) & Harper Street
2045 Total PM with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕	↕	
Traffic Vol, veh/h	0	87	0	1400	1295	8
Future Vol, veh/h	0	87	0	1400	1295	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	1408	9

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 709	- 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	0 377	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	- 377	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	17.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 377	- -	- -
HCM Lane V/C Ratio	- 0.251	- -	- -
HCM Control Delay (s)	- 17.7	- -	- -
HCM Lane LOS	- C	- -	- -
HCM 95th %tile Q(veh)	- 1	- -	- -

1: Main Street & S Boulder Road
2045 Total SAT with Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↘	↑↑	↘	↗
Traffic Volume (vph)	1084	90	26	70	1013	70	100
Future Volume (vph)	1084	90	26	70	1013	70	100
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				0.189		0.950	
Satd. Flow (perm)	3539	1535	0	352	3539	1761	1504
Right Turn on Red		Yes					Yes
Satd. Flow (RTOR)		97					109
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)	1178	98	0	104	1101	76	109
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)	71.5	71.5		81.4	81.4	10.6	9.6
Actuated g/C Ratio	0.72	0.72		0.81	0.81	0.11	0.10
v/c Ratio	0.47	0.09		0.26	0.38	0.41	0.45
Control Delay	7.7	1.5		3.5	3.4	47.7	14.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	7.7	1.5		3.5	3.4	47.7	14.3
LOS	A	A		A	A	D	B
Approach Delay	7.2				3.4	28.0	
Approach LOS	A				A	C	
Queue Length 50th (ft)	163	0		14	94	46	0

1: Main Street & S Boulder Road

2045 Total SAT with Front Street Connection.syn



Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Queue Length 95th (ft)	227	16		m20	m110	88	49
Internal Link Dist (ft)	556				320	1130	
Turn Bay Length (ft)		120		225			115
Base Capacity (vph)	2528	1124		405	2882	246	290
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	0.47	0.09		0.26	0.38	0.31	0.38

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: 6.9

Intersection LOS: A

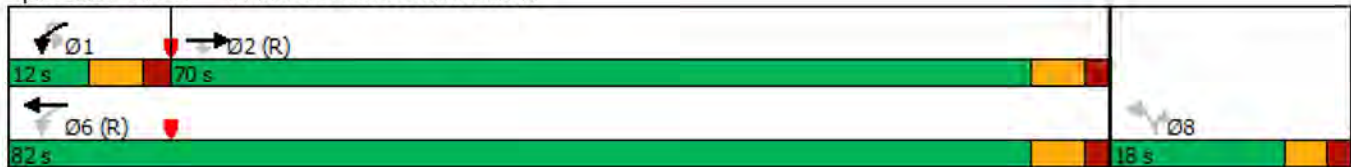
Intersection Capacity Utilization 66.9%

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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑	↗		↘	↑↑				↗		
Traffic Volume (vph)	0	1184	43	3	16	1161	4	0	0	20	0	0
Future Volume (vph)	0	1184	43	3	16	1161	4	0	0	20	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	1287	47	0	20	1266	0	0	0	22	0	0
Sign Control		Free				Free			Stop			Stop
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2045 Total SAT with Front Street Connection.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2045 Total SAT with Front Street Connection.syn

Intersection													
Int Delay, s/veh	0.2												
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↓	↑↑				↑			↑
Traffic Vol, veh/h	0	1184	43	3	16	1161	4	0	0	20	0	0	1
Future Vol, veh/h	0	1184	43	3	16	1161	4	0	0	20	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	1287	47	3	17	1262	4	0	0	22	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	1287	1344	0	0	-	-	659	-	-	648
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	-	-	217	509	-	-	0	0	406	0	0	413
Stage 1	0	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	410	410	-	-	-	-	400	-	-	407
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0			0.2			14.5			13.9			
HCM LOS							B			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	400	-	-	410	-	-	407						
HCM Lane V/C Ratio	0.054	-	-	0.05	-	-	0.003						
HCM Control Delay (s)	14.5	-	-	14.2	-	-	13.9						
HCM Lane LOS	B	-	-	B	-	-	B						
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-	-	0						

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	28	1117	28	1	52	1075	12	0	0	50	0
Future Volume (vph)	15	28	1117	28	1	52	1075	12	0	0	50	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				0.998				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	1244	0	0	58	1181	0	0	0	54	0
Sign Control			Free				Free			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 50.2%	ICU Level of Service A											
Analysis Period (min) 15												

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total SAT with Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total SAT with Front Street Connection.syn

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	1117	28	1	52	1075	12	0	0	50	0	0	82
Future Vol, veh/h	15	28	1117	28	1	52	1075	12	0	0	50	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	1214	30	1	57	1168	13	0	0	54	0	0	89

Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1182	1191	0	0	1245	1254	0	0	-	-	637	-	-	606
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	253	582	-	-	231	551	-	-	0	0	420	0	0	440
Stage 1	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %			-	-			-	-						
Mov Cap-1 Maneuver	353	353	-	-	529	529	-	-	-	-	414	-	-	434
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.6	15	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	414	353	-	-	529	-	-	434
HCM Lane V/C Ratio	0.131	0.132	-	-	0.109	-	-	0.205
HCM Control Delay (s)	15	16.7	-	-	12.6	-	-	15.4
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.4	0.5	-	-	0.4	-	-	0.8

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	22	507	607	110	322	680	173	4	212	464	253	7
Future Volume (vph)	22	507	607	110	322	680	173	4	212	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	575	660	120	350	739	188	0	234	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 Effect 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		3.07	0.55	0.18	1.02	0.70	0.30		1.62	0.45	0.40	
Control Delay		964.2	26.1	1.2	99.5	35.1	3.7		341.8	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		964.2	26.1	1.2	99.5	35.1	3.7		341.8	25.0	7.4	
LOS		F	C	A	F	D	A		F	C	A	
Approach Delay			422.0			48.1				93.4		
Approach LOS			F			D				F		
Queue Length 50th (ft)		~336	126	0	~119	218	0		~112	134	1	

4: Courtesy Road (SH 42) & S Boulder Road
 2045 Total SAT with Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	140	500	345
Future Volume (vph)	140	500	345
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)			274
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	375
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	0.55
Control Delay	152.0	29.1	11.1
Queue Delay	0.0	0.0	0.0
Total Delay	152.0	29.1	11.1
LOS	F	C	B
Approach Delay		41.1	
Approach LOS		D	
Queue Length 50th (ft)	~60	145	47

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Queue Length 95th (ft)		#433	176	0	#213	284	34		#196	128	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		3.07	0.55	0.18	1.02	0.70	0.30		1.63	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: 3.07

Intersection Signal Delay: 163.5

Intersection LOS: F

Intersection Capacity Utilization 86.8%

ICU Level of Service E

Analysis Period (min) 15

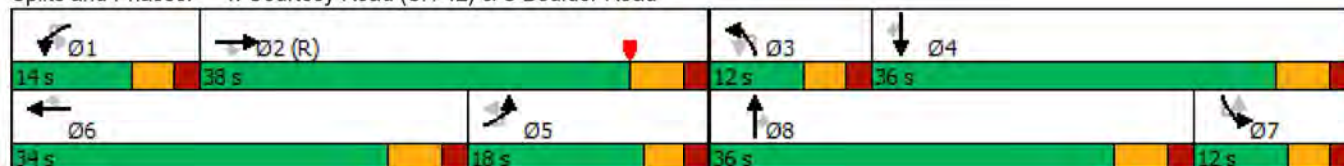
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT with Front Street Connection.syn



Lane Group	SBL	SBT	SBR
Queue Length 95th (ft)	#126	196	133
Internal Link Dist (ft)		1257	
Turn Bay Length (ft)	185		270
Base Capacity (vph)	144	1132	684
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	0.55
Intersection Summary			

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total SAT with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	0	10	0	931	918	10
Future Volume (vph)	0	10	0	931	918	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	11	0	1012	1009	0
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.7%			ICU Level of Service A		
Analysis Period (min)	15					

5: Courtesy Road (SH 42) & Cannon Circle
2045 Total SAT with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations		↗		↑↑	↑↑	
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Traffic Vol, veh/h	0	10	0	931	918	10
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Future Vol, veh/h	0	10	0	931	918	10
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Conflicting Peds, #/hr	0	0	5	0	0	5
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Sign Control	Stop	Stop	Free	Free	Free	Free
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RT Channelized	-	None	-	None	-	None
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Storage Length	-	0	-	-	-	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	92	92	92	92	92	92
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Heavy Vehicles, %	2	2	2	2	2	2
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Mvmt Flow	0	11	0	1012	998	11
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Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	-	510	0
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Stage 1	-	-	-
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Stage 2	-	-	-
---------	---	---	---

Critical Hdwy	-	6.94	-
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Critical Hdwy Stg 1	-	-	-
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Critical Hdwy Stg 2	-	-	-
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Follow-up Hdwy	-	3.32	-
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Pot Cap-1 Maneuver	0	509	0
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Stage 1	0	-	0
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Stage 2	0	-	0
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Platoon blocked, %	-	-	-
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Mov Cap-1 Maneuver	-	507	-
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Mov Cap-2 Maneuver	-	-	-
--------------------	---	---	---

Stage 1	-	-	-
---------	---	---	---

Stage 2	-	-	-
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Approach	EB	NB	SB
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HCM Control Delay, s	12.3	0	0
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HCM LOS	B		
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Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
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Capacity (veh/h)	-	507	-
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HCM Lane V/C Ratio	-	0.021	-
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HCM Control Delay (s)	-	12.3	-
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HCM Lane LOS	-	B	-
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HCM 95th %tile Q(veh)	-	0.1	-
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6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	7	44	2	1	6	25	859	43	11	865	44
Future Volume (vph)	20	7	44	2	1	6	25	859	43	11	865	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		0.871			0.869			0.993				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1622	0	1770	1619	0	1770	3514	0	1770	3539	1583
Flt Permitted	0.800			0.800			0.950			0.950		
Satd. Flow (perm)	1490	1622	0	1490	1619	0	1770	3514	0	1770	3539	1545
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48			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	56	0	2	8	0	27	981	0	12	940	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 Effect Green (s)	7.0	7.0		7.0	7.0		8.4	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	0.21		0.01	0.03		0.09	0.36		0.04	0.35	0.04
Control Delay	20.4	9.1		18.5	13.3		17.8	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	20.4	9.1		18.5	13.3		17.8	4.8		17.6	4.7	0.6
LOS	C	A		B	B		B	A		B	A	A
Approach Delay		12.3			14.3			5.2			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	6	2		1	0		7	44		5	116	0

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	17	19		5	9		22	152		m12	m164	m3
Internal Link Dist (ft)		359			201			300			289	
Turn Bay Length (ft)	50			50			225			500		273
Base Capacity (vph)	208	268		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	0.21		0.01	0.03		0.08	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 39.6%

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

 Ø1	 Ø2 (R)	 Ø4
12 s	27 s	11 s
 Ø6	 Ø5	 Ø8
25 s	14 s	11 s

7: Cannon Street & Griffith Street
2045 Total SAT with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	54	20	15	61	1	14	0	16	1	0	1
Future Volume (vph)	0	54	20	15	61	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		0.963			0.998			0.928			0.932	
Flt Protected					0.990			0.977			0.976	
Satd. Flow (prot)	0	1794	0	0	1840	0	0	1689	0	0	1694	0
Flt Permitted					0.990			0.977			0.976	
Satd. Flow (perm)	0	1794	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	81	0	0	83	0	0	32	0	0	2	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.7%											
Analysis Period (min)	15											
ICU Level of Service A												

7: Cannon Street & Griffith Street
 2045 Total SAT with Front Street Connection.syn

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	54	20	15	61	1	14	0	16	1	0	1
Future Vol, veh/h	0	54	20	15	61	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	59	22	16	66	1	15	0	17	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	86	0	0	179	179	80	188	190	77
Stage 1	-	-	-	-	-	-	75	75	-	104	104	-
Stage 2	-	-	-	-	-	-	104	104	-	84	86	-
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	1528	-	-	1510	-	-	783	715	980	772	705	984
Stage 1	-	-	-	-	-	-	934	833	-	902	809	-
Stage 2	-	-	-	-	-	-	902	809	-	924	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1521	-	-	1503	-	-	768	700	971	745	690	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	768	700	-	745	690	-
Stage 1	-	-	-	-	-	-	929	829	-	897	796	-
Stage 2	-	-	-	-	-	-	887	796	-	903	820	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			9.3			9.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	864	1521	-	-	1503	-	-	845				
HCM Lane V/C Ratio	0.038	-	-	-	0.011	-	-	0.003				
HCM Control Delay (s)	9.3	0	-	-	7.4	0	-	9.3				
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 with Front Street Connection.syn

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	53	3	1	68	7	8	0	0	23	0	25
Future Volume (vph)	12	53	3	1	68	7	8	0	0	23	0	25
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		0.995			0.987						0.930	
Flt Protected		0.991			0.999			0.950			0.977	
Satd. Flow (prot)	0	1837	0	0	1837	0	0	1770	0	0	1693	0
Flt Permitted		0.991			0.999			0.950			0.977	
Satd. Flow (perm)	0	1837	0	0	1837	0	0	1770	0	0	1693	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	74	0	0	83	0	0	9	0	0	52	0
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.7%											
Analysis Period (min)	15											
ICU Level of Service A												

8: Griffith Street & Front Street
2045 Total SAT with Front Street Connection.syn

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	53	3	1	68	7	8	0	0	23	0	25
Future Vol, veh/h	12	53	3	1	68	7	8	0	0	23	0	25
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	13	58	3	1	74	8	9	0	0	25	0	27
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	71	0	0	195	185	75	176	182	88
Stage 1	-	-	-	-	-	-	96	96	-	85	85	-
Stage 2	-	-	-	-	-	-	99	89	-	91	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	1509	-	-	1529	-	-	764	709	986	786	712	970
Stage 1	-	-	-	-	-	-	911	815	-	923	824	-
Stage 2	-	-	-	-	-	-	907	821	-	916	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1502	-	-	1514	-	-	727	691	972	773	694	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	727	691	-	773	694	-
Stage 1	-	-	-	-	-	-	895	800	-	910	819	-
Stage 2	-	-	-	-	-	-	876	816	-	903	800	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			10			9.5		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	727	1502	-	-	1514	-	-	861				
HCM Lane V/C Ratio	0.012	0.009	-	-	0.001	-	-	0.061				
HCM Control Delay (s)	10	7.4	0	-	7.4	0	-	9.5				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2				

9: Main Street & Griffith Street
 2045 Total SAT with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	66	38	137	52	14	141
Future Volume (vph)	66	38	137	52	14	141
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		0.963			
Flt Protected	0.969					0.996
Satd. Flow (prot)	1717	0	1794	0	0	1855
Flt Permitted	0.969					0.996
Satd. Flow (perm)	1717	0	1794	0	0	1855
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)	113	0	206	0	0	168
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.3%			ICU Level of Service A		
Analysis Period (min)	15					

9: Main Street & Griffith Street
 2045 Total SAT with Front Street Connection.syn

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	38	137	52	14	141
Future Vol, veh/h	66	38	137	52	14	141
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	72	41	149	57	15	153
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	384	197	0	0	223	0
Stage 1	195	-	-	-	-	-
Stage 2	189	-	-	-	-	-
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	619	844	-	-	1346	-
Stage 1	838	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	598	829	-	-	1324	-
Mov Cap-2 Maneuver	598	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.5	0		0.7		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	666	1324	-	
HCM Lane V/C Ratio	-	-	0.17	0.011	-	
HCM Control Delay (s)	-	-	11.5	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.6	0	-	

10: Front Street & Harper Street
 2045 Total SAT with Front Street Connection.syn

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	10	9	0	44
Future Volume (vph)	4	0	10	9	0	44
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			0.936			
Flt Protected	0.950					
Satd. Flow (prot)	1770	0	1744	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1770	0	1744	0	0	1863
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	21	0	0	48
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.2%			ICU Level of Service A		
Analysis Period (min)	15					

10: Front Street & Harper Street
2045 Total SAT with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	10	9	0	44
Future Vol, veh/h	4	0	10	9	0	44
Conflicting Peds, #/hr	5	132	0	70	70	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	4	0	11	10	0	48

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	139	218	0
Stage 1	86	-	-
Stage 2	53	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	854	822	-
Stage 1	937	-	-
Stage 2	970	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	793	671	-
Mov Cap-2 Maneuver	793	-	-
Stage 1	874	-	-
Stage 2	965	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	793	1404
HCM Lane V/C Ratio	-	-	0.005	-
HCM Control Delay (s)	-	-	9.6	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

11: Courtesy Road (SH 42) & Harper Street
 2045 Total SAT with Front Street Connection.syn

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	49	0	878	908	6
Future Volume (vph)	0	49	0	878	908	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)	214			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)	0	53	0	954	994	0
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					

11: Courtesy Road (SH 42) & Harper Street
 2045 Total SAT with Front Street Connection.syn

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	49	0	878	908	6
Future Vol, veh/h	0	49	0	878	908	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	987	7

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 497	- 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	0 519	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 519	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 519	- -	- -
HCM Lane V/C Ratio	- 0.103	- -	- -
HCM Control Delay (s)	- 12.7	- -	- -
HCM Lane LOS	- B	- -	- -
HCM 95th %tile Q(veh)	- 0.3	- -	- -

1: Main Street & S Boulder Road
2026 Total AM without Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
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

1: Main Street & S Boulder Road
 2026 Total AM without Front Street Connection.syn



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

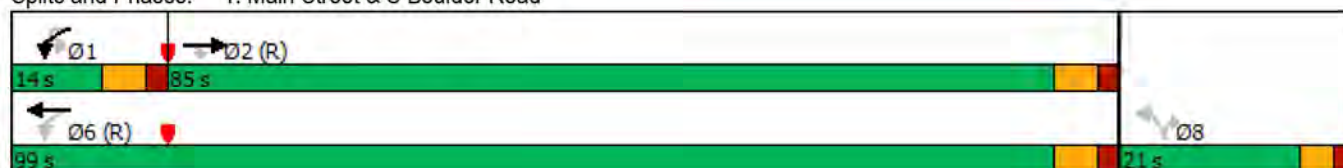
Intersection Capacity Utilization 64.3%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2026 Total AM without Front Street Connection.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
2026 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
 2026 Total AM without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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

4: Courtesy Road (SH 42) & S Boulder Road
 2026 Total AM without Front Street Connection.syn

	↓	↙
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

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM without Front Street Connection.syn

												
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

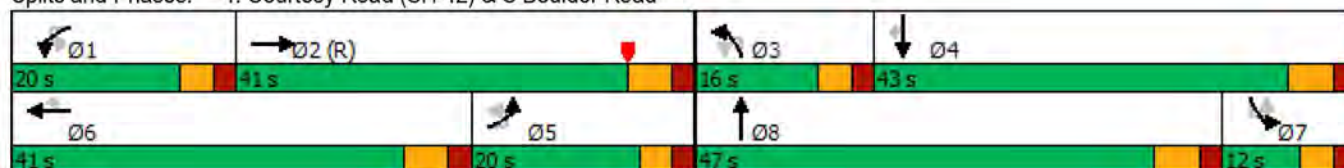
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2026 Total AM without Front Street Connection.syn



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		

5: Courtesy Road (SH 42) & Cannon Circle
 2026 Total AM without Front Street Connection.syn

							
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						

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total AM without Front Street Connection.syn

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	EBLn1WBLn1WBLn2	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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2026 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

8: Griffith Street & Front Street
2026 Total AM without Front Street Connection.syn

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				

9: Main Street & Griffith Street
2026 Total AM without Front Street Connection.syn

								
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							

9: Main Street & Griffith Street
2026 Total AM without Front Street Connection.syn

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	NBRWBLn1	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	-			

10: Front Street & Harper Street
 2026 Total AM without Front Street Connection.syn

						
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 without Front Street Connection.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total AM without Front Street Connection.syn

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	-	-	

1: Main Street & S Boulder Road
2026 Total PM without Front Street Connection.syn

	→	↘	↶	↙	←	↗	↘
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

1: Main Street & S Boulder Road
2026 Total PM without Front Street Connection.syn



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

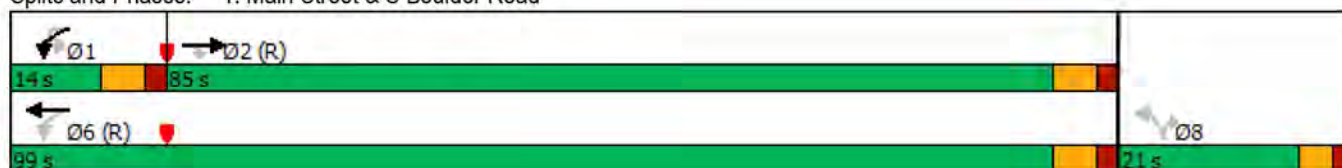
Intersection Capacity Utilization 74.5%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2026 Total PM without Front Street Connection.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
 2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
 2026 Total PM without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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 without Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
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 Effect 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

4: Courtesy Road (SH 42) & S Boulder Road
 2026 Total PM without Front Street Connection.syn

												
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

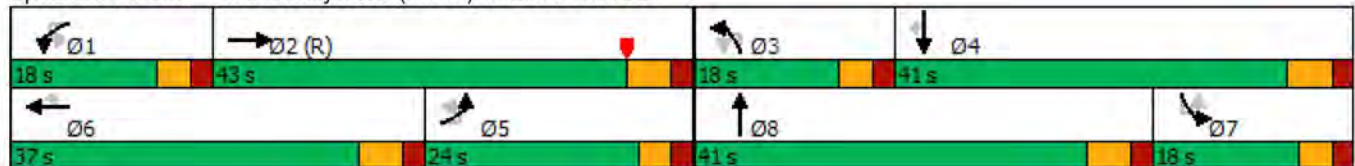
~ Volume exceeds capacity, queue is theoretically infinite.

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

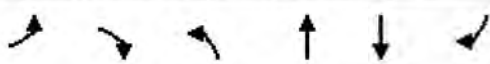


4: Courtesy Road (SH 42) & S Boulder Road
2026 Total PM without Front Street Connection.syn



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 without Front Street Connection.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service D											

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total PM without Front Street Connection.syn

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	

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
ICU Level of Service A												

7: Cannon Street & Griffith Street
2026 Total PM without Front Street Connection.syn

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	

7: Cannon Street & Griffith Street
2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2026 Total PM without Front Street Connection.syn

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	

8: Griffith Street & Front Street
2026 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

							
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						

9: Main Street & Griffith Street
2026 Total PM without Front Street Connection.syn

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	NBRWBLn1		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 without Front Street Connection.syn

						
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 without Front Street Connection.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total PM without Front Street Connection.syn

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑↑	
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 without Front Street Connection.syn

	→	↘	↶	↙	←	↗	↘
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

1: Main Street & S Boulder Road
 2026 Total SAT without Front Street Connection.syn



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

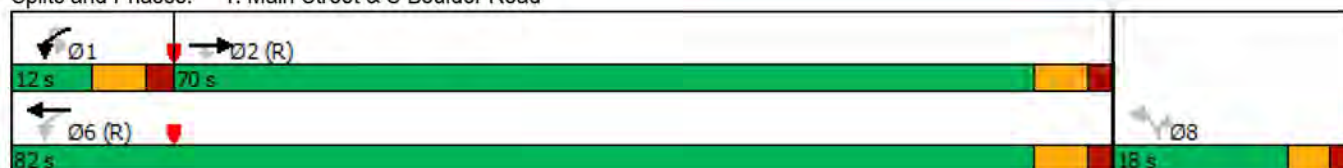
Intersection Capacity Utilization 66.0%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2026 Total SAT without Front Street Connection.syn

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	

2: Front Street/Private Access & S Boulder Road
 2026 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
 2026 Total SAT without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2026 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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 without Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
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 Effect 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

4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT without Front Street Connection.syn

												
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

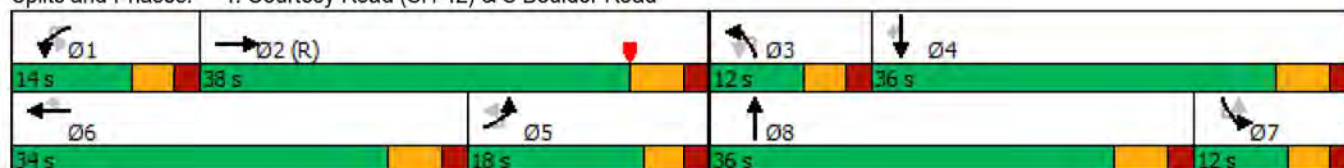
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2026 Total SAT without Front Street Connection.syn



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 without Front Street Connection.syn

							
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						

5: Courtesy Road (SH 42) & Cannon Circle
 2026 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
ICU Level of Service A												

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2026 Total SAT without Front Street Connection.syn

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	EBLn1WBLn1WBLn2	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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2026 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

8: Griffith Street & Front Street
2026 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

						
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					

9: Main Street & Griffith Street
2026 Total SAT without Front Street Connection.syn

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	NBRWBLn1	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 without Front Street Connection.syn

						
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 without Front Street Connection.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
2026 Total SAT without Front Street Connection.syn

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
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 without Front Street Connection.syn

	→	↘	↶	↙	←	↗	↘
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 Effect 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

1: Main Street & S Boulder Road
 2045 Total AM without Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
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

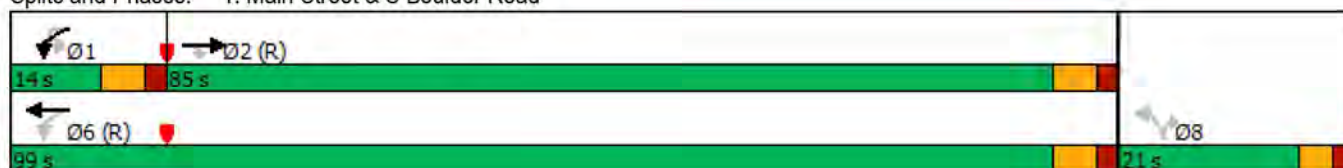
Intersection Capacity Utilization 68.4%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road
2045 Total AM without Front Street Connection.syn

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	

2: Front Street/Private Access & S Boulder Road
2045 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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 without Front Street Connection.syn

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
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

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM without Front Street Connection.syn

												
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

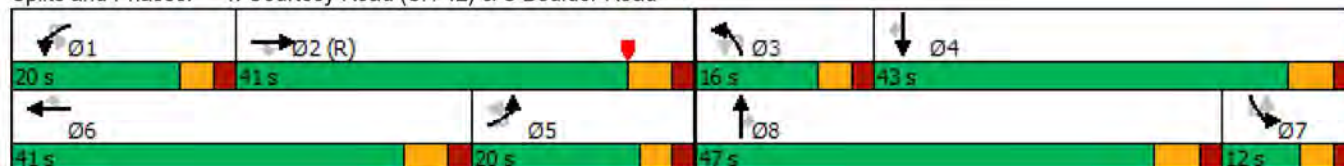
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
2045 Total AM without Front Street Connection.syn



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 without Front Street Connection.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total AM without Front Street Connection.syn

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 without Front Street Connection.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	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 Effect 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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total AM without Front Street Connection.syn

												
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

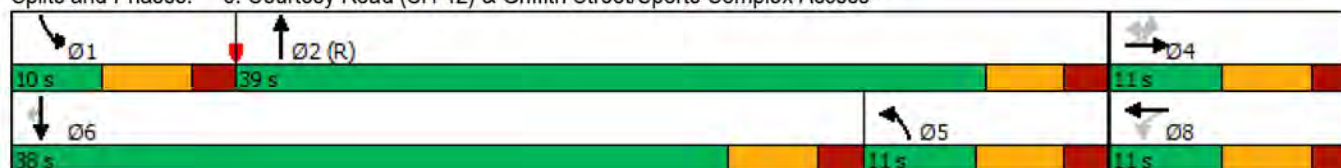
Intersection Capacity Utilization 47.5%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2045 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2045 Total AM without Front Street Connection.syn

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 without Front Street Connection.syn

								
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							

9: Main Street & Griffith Street
 2045 Total AM without Front Street Connection.syn

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	NBRWBLn1	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 without Front Street Connection.syn

						
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 without Front Street Connection.syn

								
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							

11: Courtesy Road (SH 42) & Harper Street
 2045 Total AM without Front Street Connection.syn

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	-	-

1: Main Street & S Boulder Road
2045 Total PM without Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
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 Effect 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

1: Main Street & S Boulder Road
 2045 Total PM without Front Street Connection.syn



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

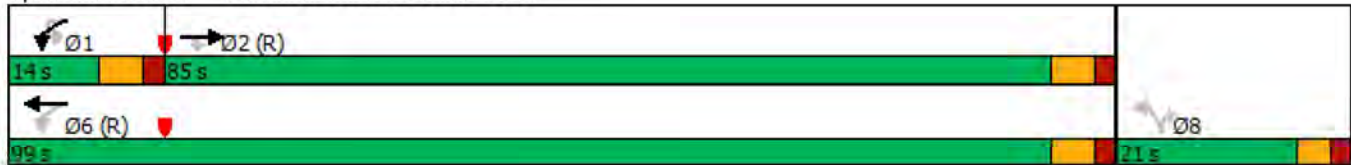
Analysis Period (min) 15

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service B											

2: Front Street/Private Access & S Boulder Road
2045 Total PM without Front Street Connection.syn

Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
 2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total PM without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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	

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM without Front Street Connection.syn

			
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

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM without Front Street Connection.syn

												
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.

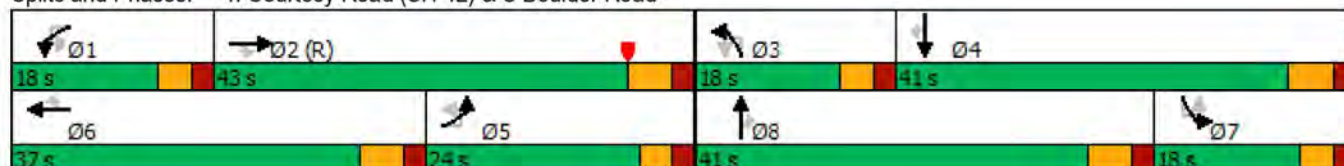
Queue shown is maximum after two cycles.

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



4: Courtesy Road (SH 42) & S Boulder Road
2045 Total PM without Front Street Connection.syn



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 without Front Street Connection.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total PM without Front Street Connection.syn

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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total PM without Front Street Connection.syn

												
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

 Ø1	 Ø2 (R)	 Ø4
10 s	39 s	11 s
 Ø6	 Ø5	 Ø8
36 s	11 s	11 s

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
2045 Total PM without Front Street Connection.syn



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 without Front Street Connection.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	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%											
Analysis Period (min)	15											
	ICU Level of Service A											

7: Cannon Street & Griffith Street
2045 Total PM without Front Street Connection.syn

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	

7: Cannon Street & Griffith Street
2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

8: Griffith Street & Front Street
2045 Total PM without Front Street Connection.syn

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	

8: Griffith Street & Front Street
2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

							
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						

9: Main Street & Griffith Street
2045 Total PM without Front Street Connection.syn

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	NBRWBLn1		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 without Front Street Connection.syn

						
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 without Front Street Connection.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
 2045 Total PM without Front Street Connection.syn

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 without Front Street Connection.syn

	→	↘	↶	↙	←	↖	↗
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

1: Main Street & S Boulder Road
 2045 Total SAT without Front Street Connection.syn



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

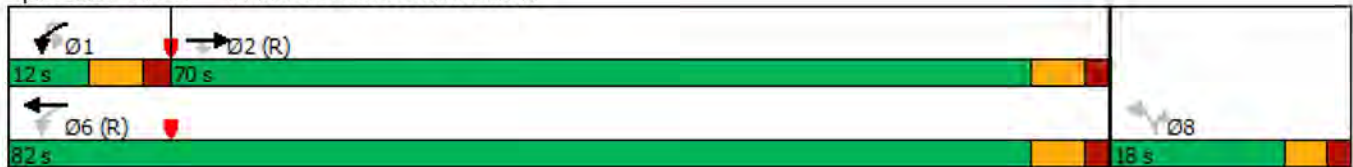
Intersection Capacity Utilization 66.9%

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 without Front Street Connection.syn

												
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%											
Analysis Period (min)	15											
	ICU Level of Service A											

2: Front Street/Private Access & S Boulder Road
2045 Total SAT without Front Street Connection.syn



Lane Group	SBR
Lane Configurations	7
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	

2: Front Street/Private Access & S Boulder Road
 2045 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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											

3: Cannon Circle/Private Access & S Boulder Road
 2045 Total SAT without Front Street Connection.syn



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		

3: Cannon Circle/Private Access & S Boulder Road
2045 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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 Effect 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 without Front Street Connection.syn

			
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

4: Courtesy Road (SH 42) & S Boulder Road
2045 Total SAT without Front Street Connection.syn

												
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

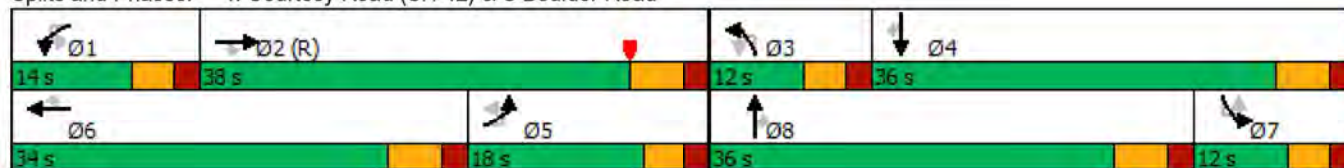
~ Volume exceeds capacity, queue is theoretically infinite.

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



4: Courtesy Road (SH 42) & S Boulder Road
 2045 Total SAT without Front Street Connection.syn



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 without Front Street Connection.syn

						
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					

5: Courtesy Road (SH 42) & Cannon Circle
 2045 Total SAT without Front Street Connection.syn

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 without Front Street Connection.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	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 Effect 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

6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access
 2045 Total SAT without Front Street Connection.syn

												
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

 Ø1	 Ø2 (R)	 Ø4
12 s	27 s	11 s
 Ø6	 Ø5	 Ø8
25 s	14 s	11 s

7: Cannon Street & Griffith Street
2045 Total SAT without Front Street Connection.syn

												
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											

7: Cannon Street & Griffith Street
 2045 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

												
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												

8: Griffith Street & Front Street
2045 Total SAT without Front Street Connection.syn

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 without Front Street Connection.syn

						
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					

9: Main Street & Griffith Street
 2045 Total SAT without Front Street Connection.syn

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	NBRWBLn1	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 without Front Street Connection.syn

						
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 without Front Street Connection.syn

						
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					

11: Courtesy Road (SH 42) & Harper Street
 2045 Total SAT without Front Street Connection.syn

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	- -	- -	- -

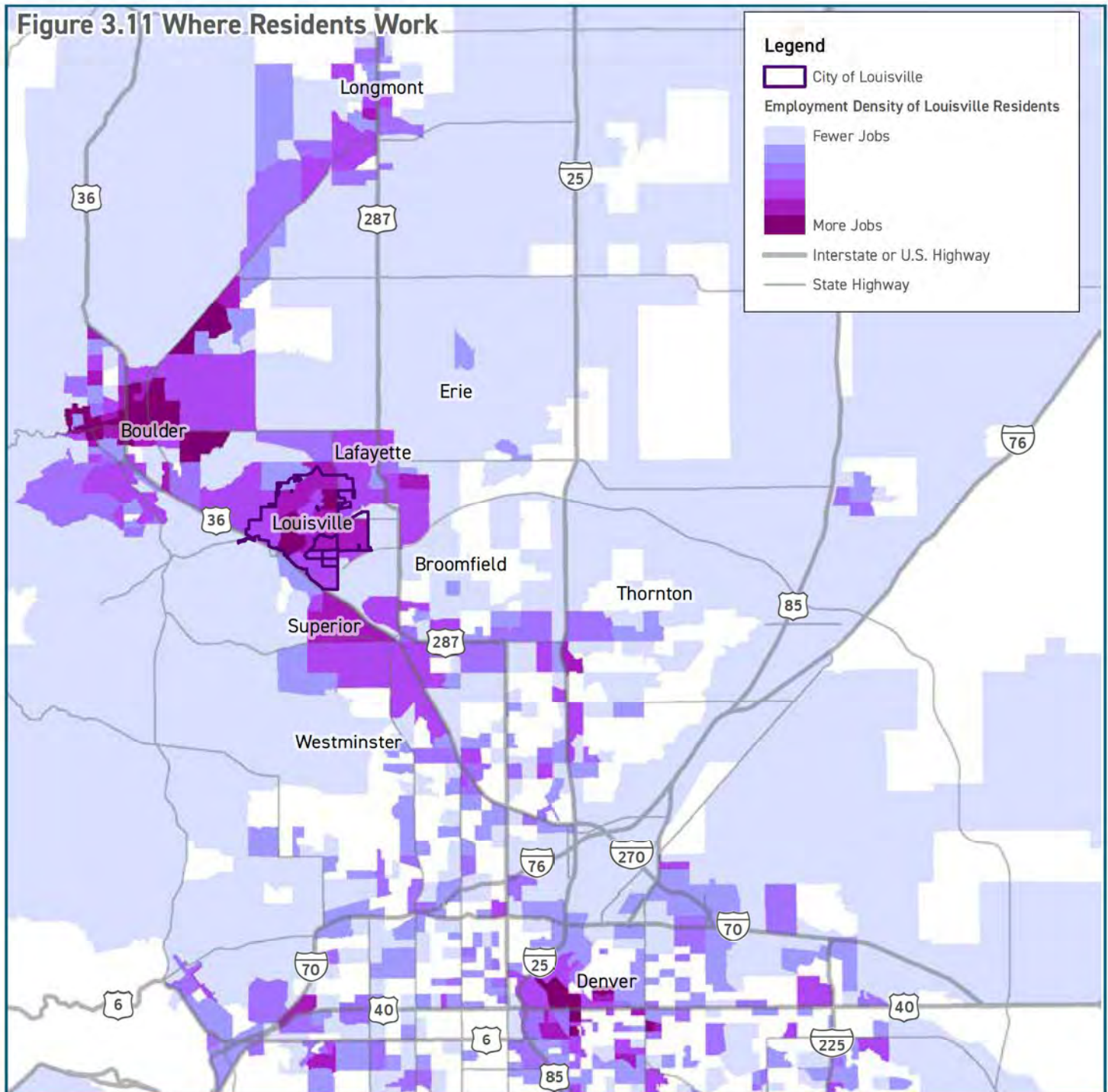
Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

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 O: Louisville TMP Pages

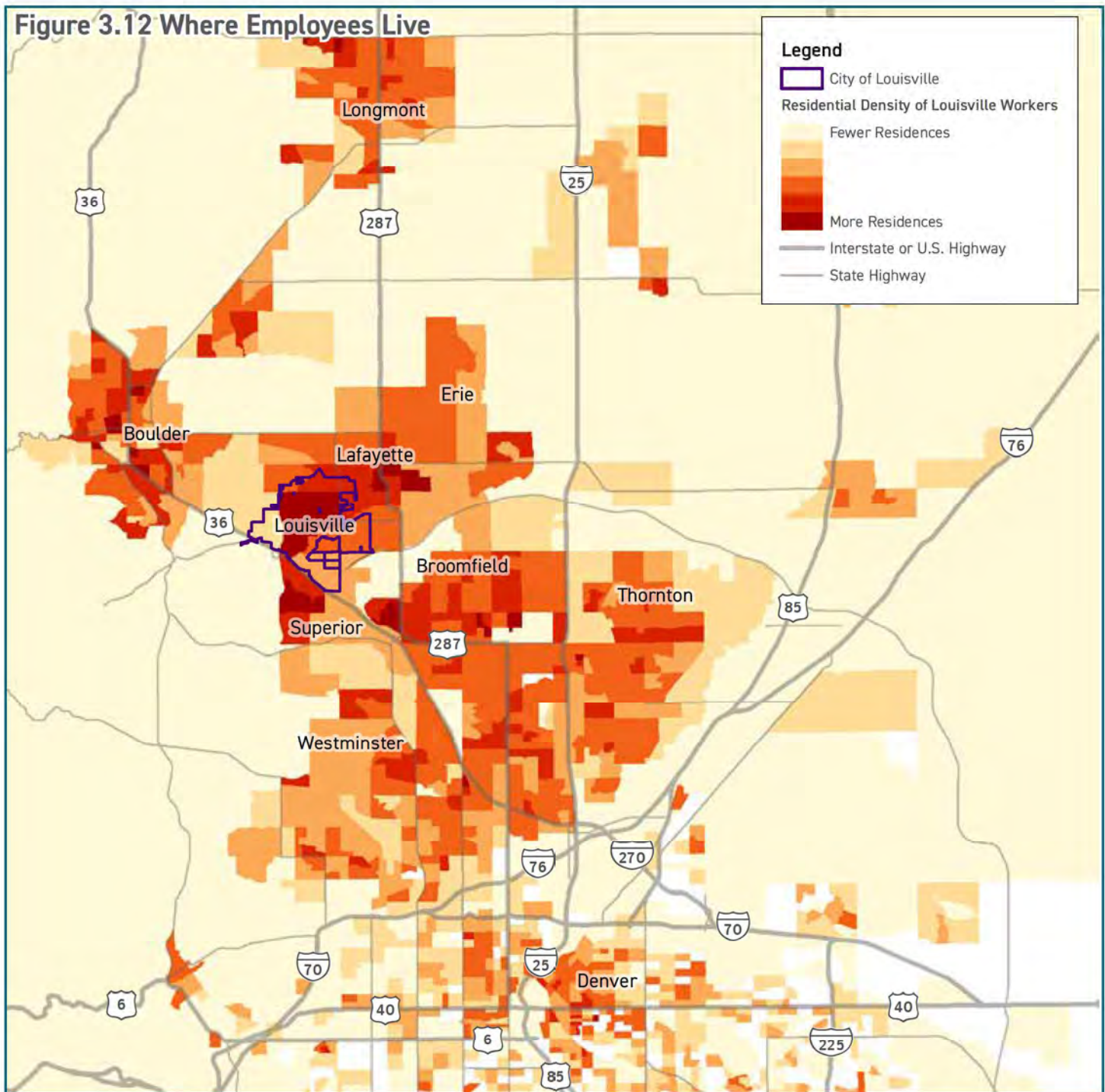
Where Louisville Residents Work

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

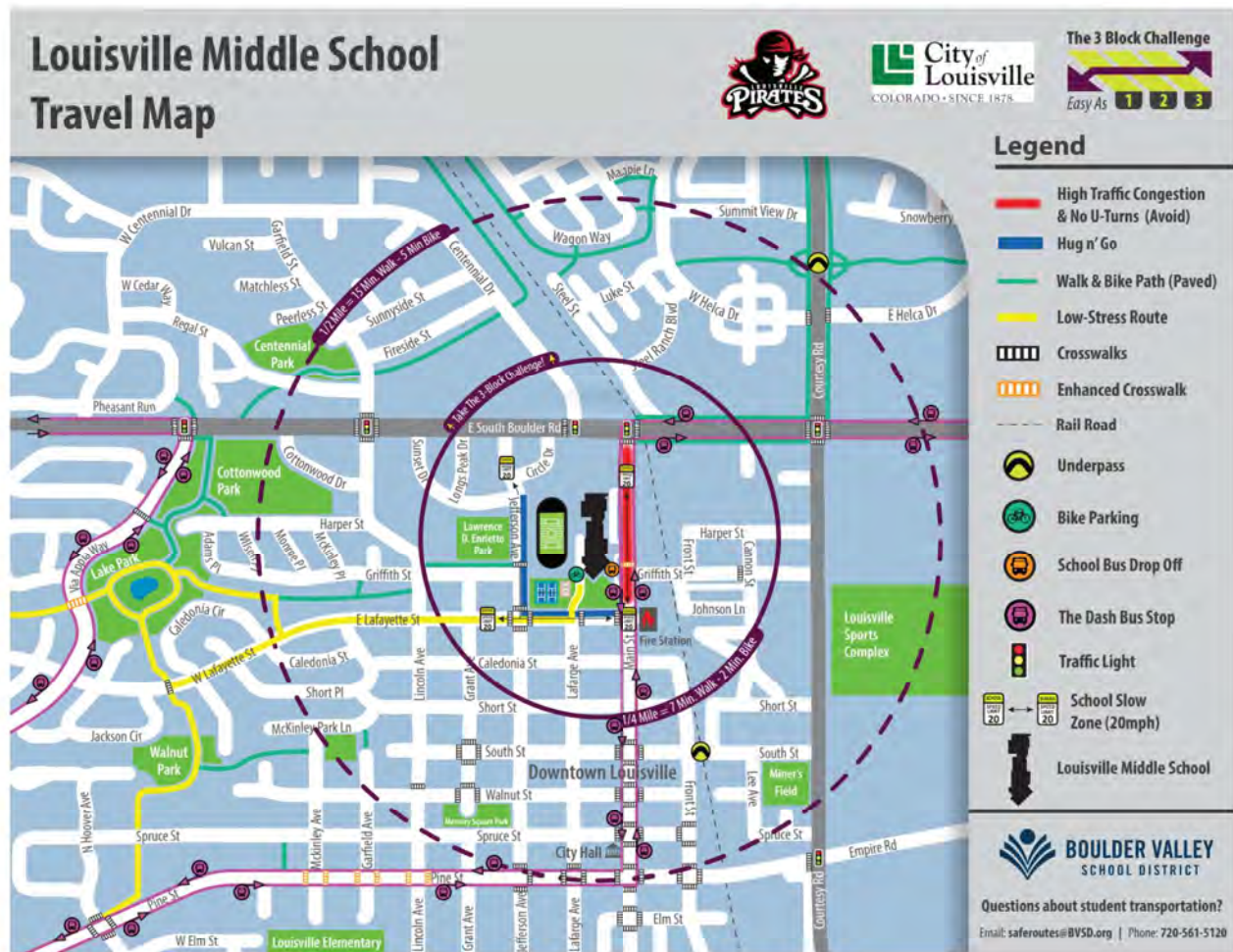
As housing costs continue to rise, more growth is occurring further out in the region, resulting in more, and longer commutes. This places additional stress on the transportation network leading to increased congestion. Allowing transit supportive development patterns and land uses, such as mixed use 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 P: Railroad Queue Calculations

Train Queue Calculations

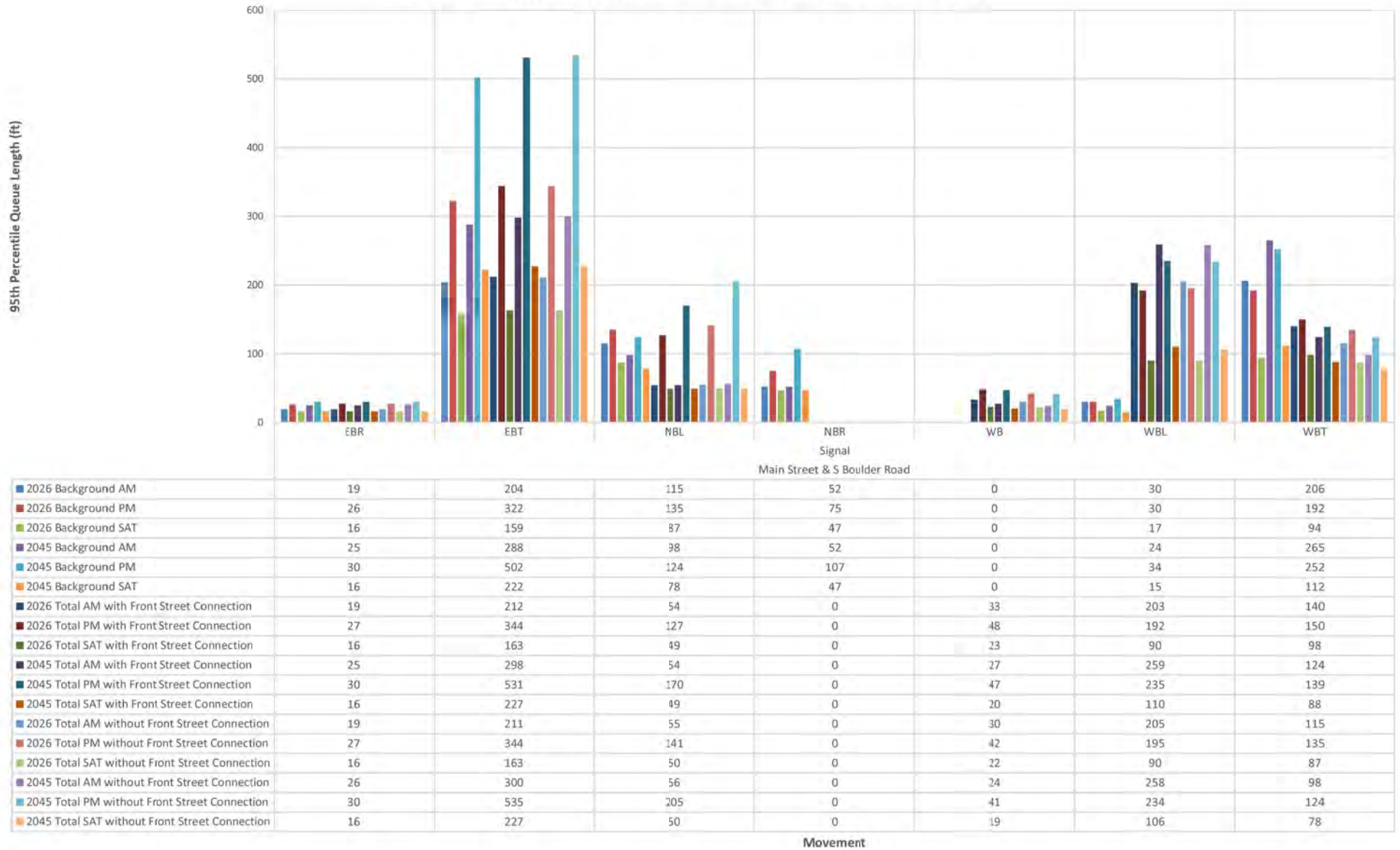
FullScenario	Int Dir	Volume (vph)	Train Delay (min)	Avg # of Vehicles per Train Event	(95th Percentile) Cumulative Poisson Distribution	(95th Percentile) Vehicles in Queue	(50th Percentile) Cumulative Poisson Distribution	(50th Percentile) Vehicles in Queue	(95th Percentile) Queue Length (ft.)	(50th Percentile) Queue Length (ft.)
Total 2026 With Front Street AM	EB	88	3	4.4	0.964	8	0.551	4	200	100
Total 2026 With Front Street PM	EB	93	3	4.7	0.952	8	0.504	4	200	100
Total 2026 With Front Street SAT	EB	72	3	3.6	0.969	7	0.515	3	175	75
Total 2026 With Front Street AM	WB	167	3	8.4	0.954	13	0.544	8	325	200
Total 2026 With Front Street PM	WB	179	3	9.0	0.960	14	0.594	9	350	225
Total 2026 With Front Street SAT	WB	122	3	6.1	0.953	10	0.590	6	250	150
Total 2026 With Front Street AM	EB	88	5	7.3	0.963	12	0.549	7	300	175
Total 2026 With Front Street PM	EB	93	5	7.8	0.973	13	0.627	8	325	200
Total 2026 With Front Street SAT	EB	72	5	6.0	0.957	10	0.606	6	250	150
Total 2026 With Front Street AM	WB	167	5	13.9	0.954	20	0.579	14	500	350
Total 2026 With Front Street PM	WB	179	5	14.9	0.969	22	0.577	15	550	375
Total 2026 With Front Street SAT	WB	122	5	10.2	0.969	16	0.562	10	400	250
Total 2026 Without Front Street AM	EB	82	3	4.1	0.976	8	0.609	4	200	100
Total 2026 Without Front Street PM	EB	78	3	3.9	0.955	7	0.648	4	175	100
Total 2026 Without Front Street SAT	EB	64	3	3.2	0.955	6	0.603	3	150	75
Total 2026 Without Front Street AM	WB	127	3	6.4	0.971	11	0.550	6	275	150
Total 2026 Without Front Street PM	WB	147	3	7.4	0.963	12	0.547	7	300	175
Total 2026 Without Front Street SAT	WB	99	3	5.0	0.970	9	0.625	5	225	125
Total 2026 Without Front Street AM	EB	82	5	6.8	0.954	11	0.624	7	275	175
Total 2026 Without Front Street PM	EB	78	5	6.5	0.966	11	0.527	6	275	150
Total 2026 Without Front Street SAT	EB	64	5	5.3	0.954	9	0.558	5	225	125
Total 2026 Without Front Street AM	WB	127	5	10.6	0.958	16	0.510	10	400	250
Total 2026 Without Front Street PM	WB	147	5	12.3	0.956	18	0.547	12	450	300
Total 2026 Without Front Street SAT	WB	99	5	8.3	0.958	13	0.558	8	325	200
Total 2045 With Front Street AM	EB	87	3	4.4	0.966	8	0.561	4	200	100
Total 2045 With Front Street PM	EB	89	3	4.5	0.962	8	0.542	4	200	100
Total 2045 With Front Street SAT	EB	68	3	3.4	0.977	7	0.558	3	175	75
Total 2045 With Front Street AM	WB	153	3	7.7	0.952	12	0.503	7	300	175
Total 2045 With Front Street PM	WB	170	3	8.5	0.973	14	0.523	8	350	200
Total 2045 With Front Street SAT	WB	113	3	5.7	0.970	10	0.503	5	250	125
Total 2045 With Front Street AM	EB	87	5	7.3	0.966	12	0.562	7	300	175
Total 2045 With Front Street PM	EB	89	5	7.4	0.960	12	0.537	7	300	175
Total 2045 With Front Street SAT	EB	68	5	5.7	0.970	10	0.501	5	250	125
Total 2045 With Front Street AM	WB	153	5	12.8	0.964	19	0.601	13	475	325
Total 2045 With Front Street PM	WB	170	5	14.2	0.968	21	0.553	14	525	350
Total 2045 With Front Street SAT	WB	113	5	9.4	0.969	15	0.533	9	375	225
Total 2045 Without Front Street AM	EB	81	3	4.1	0.977	8	0.619	4	200	100
Total 2045 Without Front Street PM	EB	74	3	3.7	0.965	7	0.687	4	175	100
Total 2045 Without Front Street SAT	EB	60	3	3.0	0.966	6	0.647	3	150	75
Total 2045 Without Front Street AM	WB	110	3	5.5	0.975	10	0.529	5	250	125
Total 2045 Without Front Street PM	WB	142	3	7.1	0.970	12	0.584	7	300	175
Total 2045 Without Front Street SAT	WB	90	3	4.5	0.960	8	0.532	4	200	100
Total 2045 Without Front Street AM	EB	81	5	6.8	0.957	11	0.636	7	275	175
Total 2045 Without Front Street PM	EB	74	5	6.2	0.950	10	0.580	6	250	150
Total 2045 Without Front Street SAT	EB	60	5	5.0	0.968	9	0.616	5	225	125
Total 2045 Without Front Street AM	WB	110	5	9.2	0.953	14	0.565	9	350	225
Total 2045 Without Front Street PM	WB	142	5	11.8	0.967	18	0.595	12	450	300
Total 2045 Without Front Street 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 Q: Louisville Middle School Travel Map

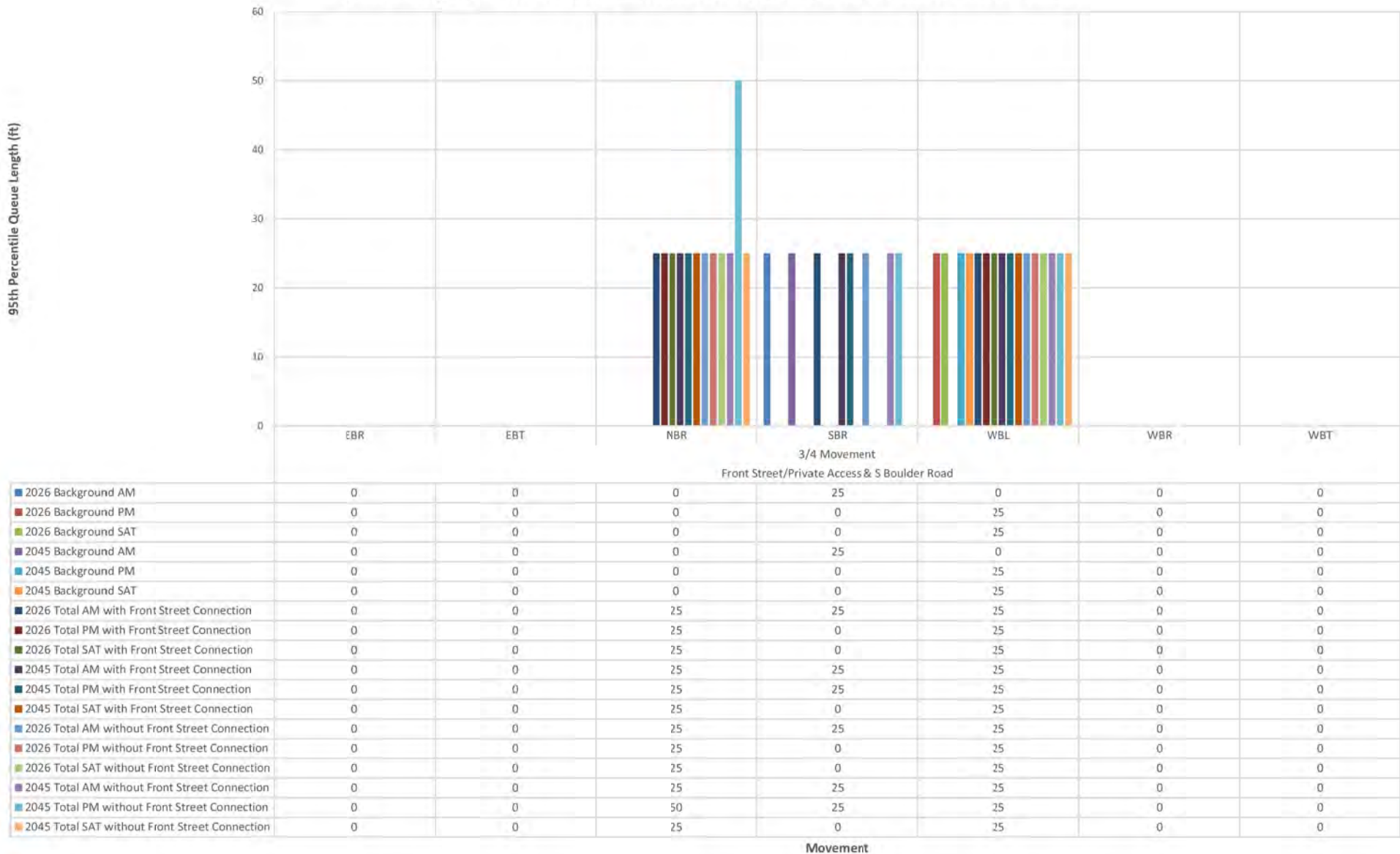


Appendix R: Intersection Queues

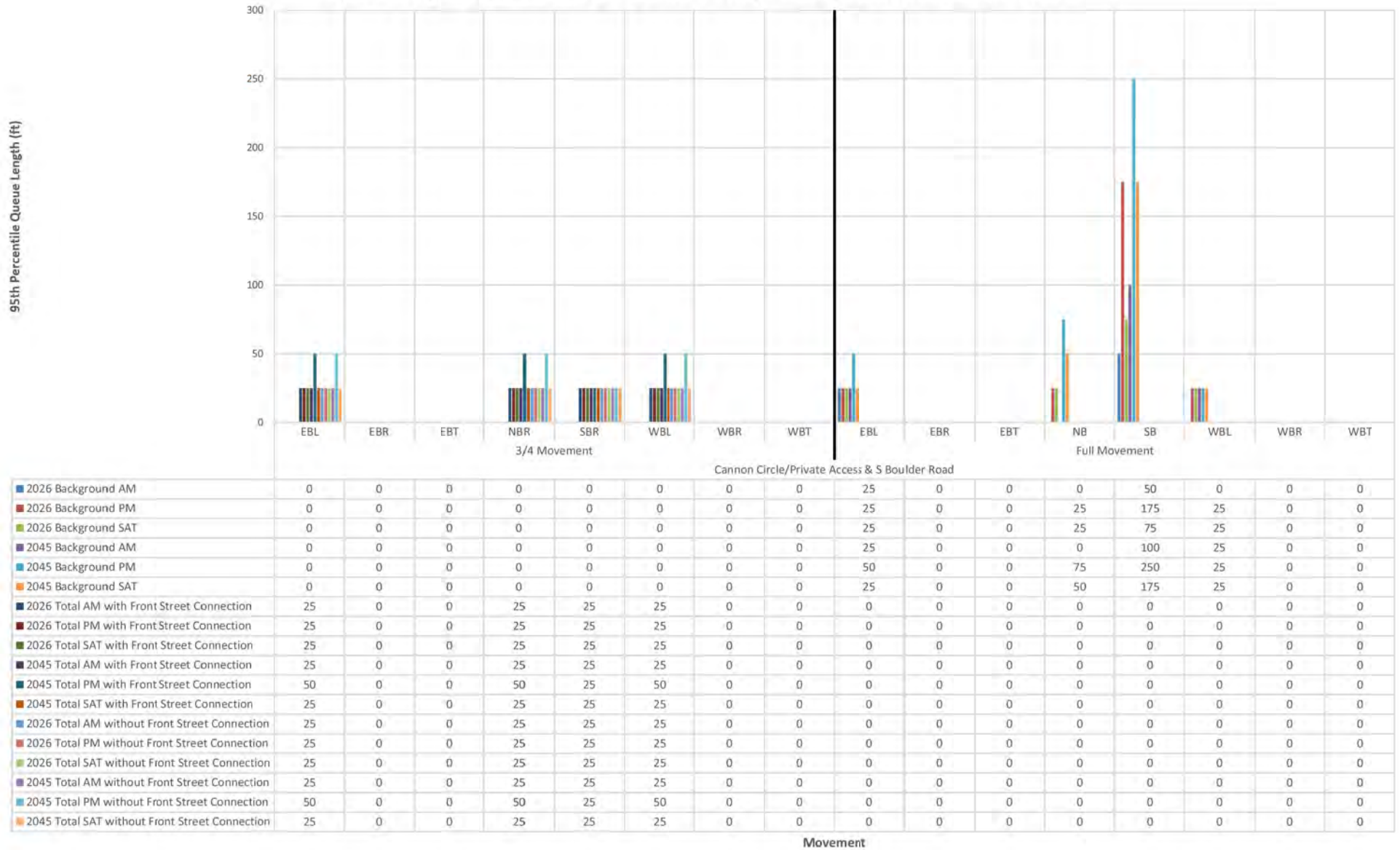
Queue Lengths - Intersection 1: Main Street & S Boulder Road



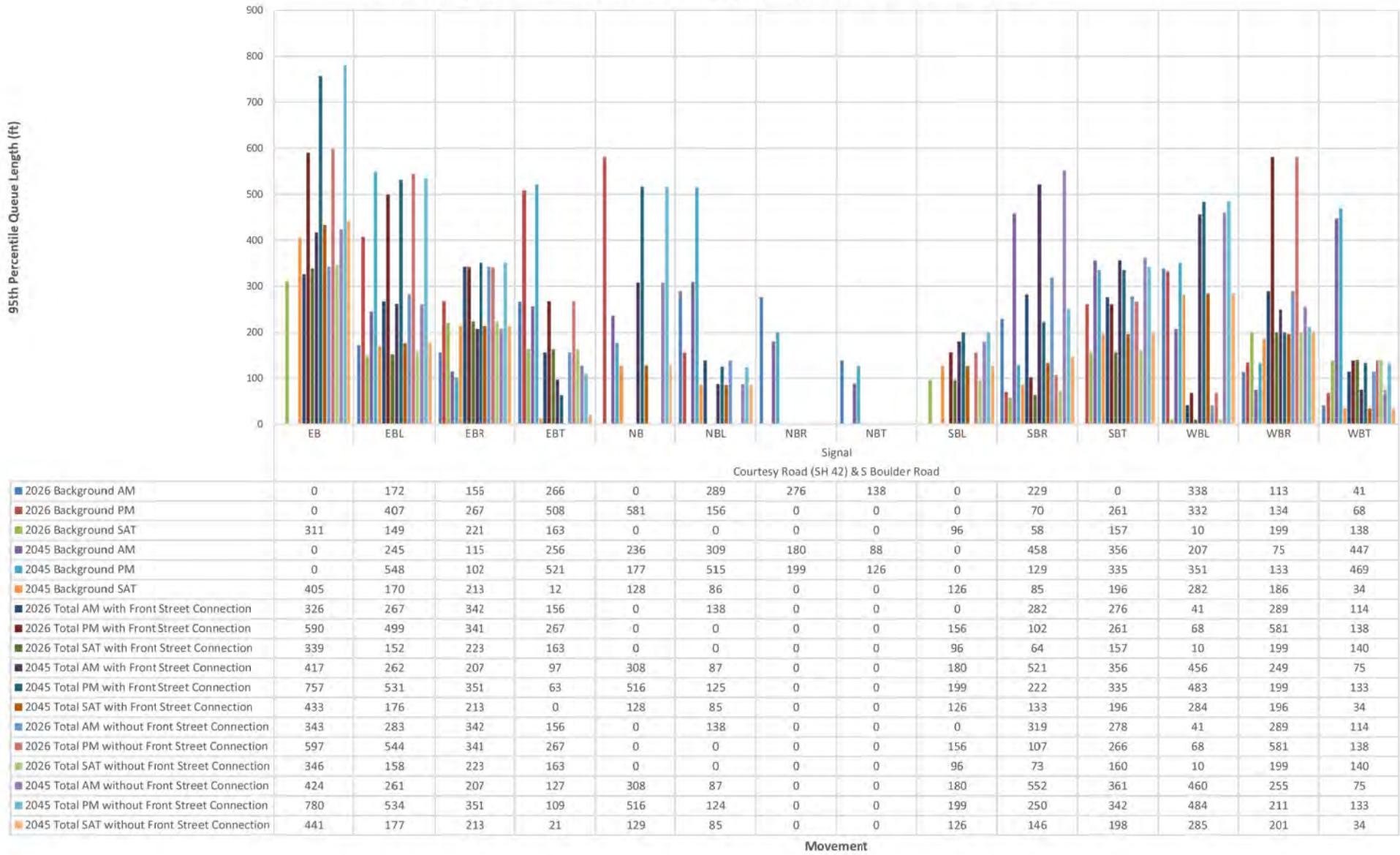
Queue Lengths - Intersection 2: Front Street/Private Access & S Boulder Road



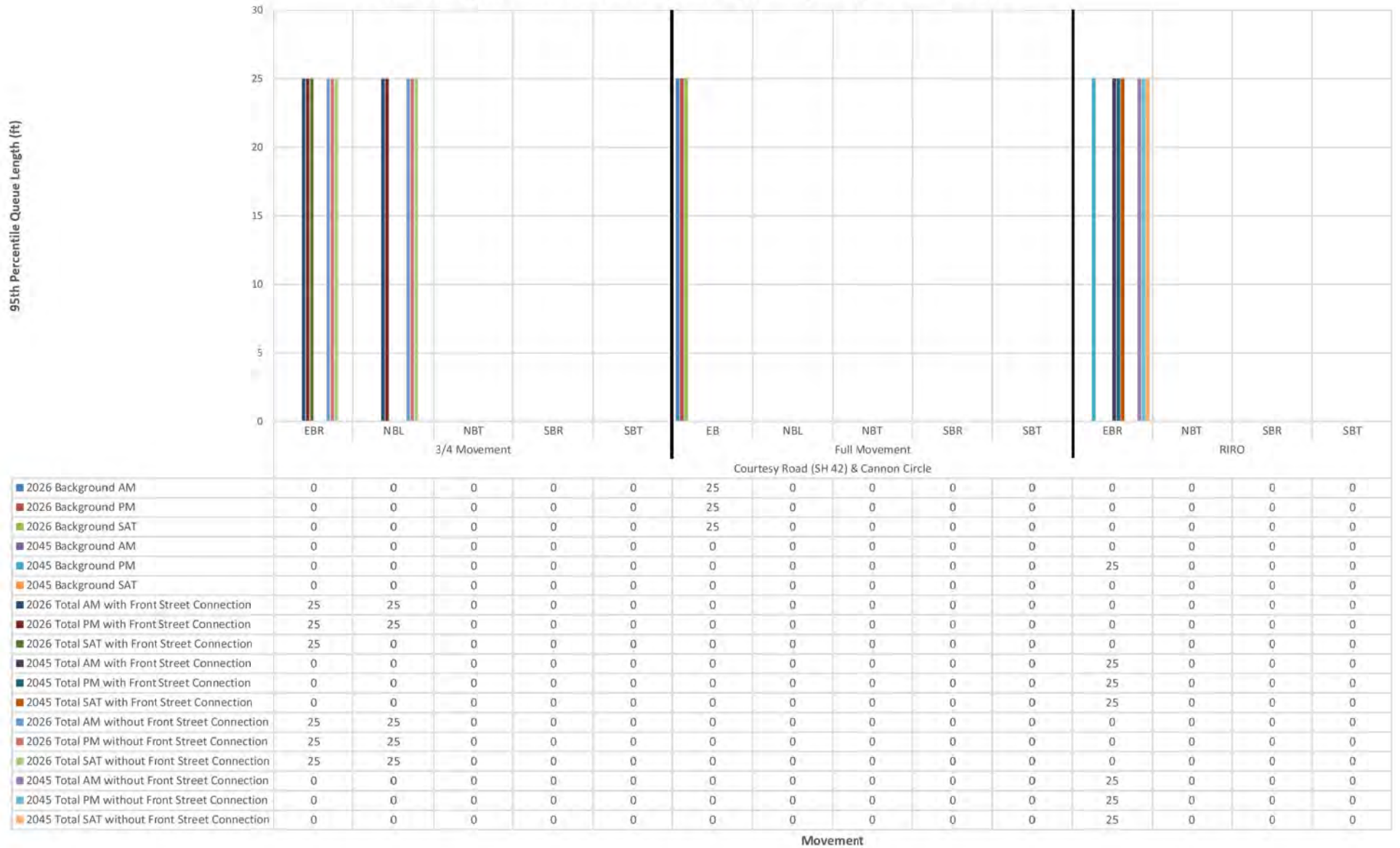
Queue Lengths - Intersection 3: Cannon Circle/Private Access & S Boulder Road



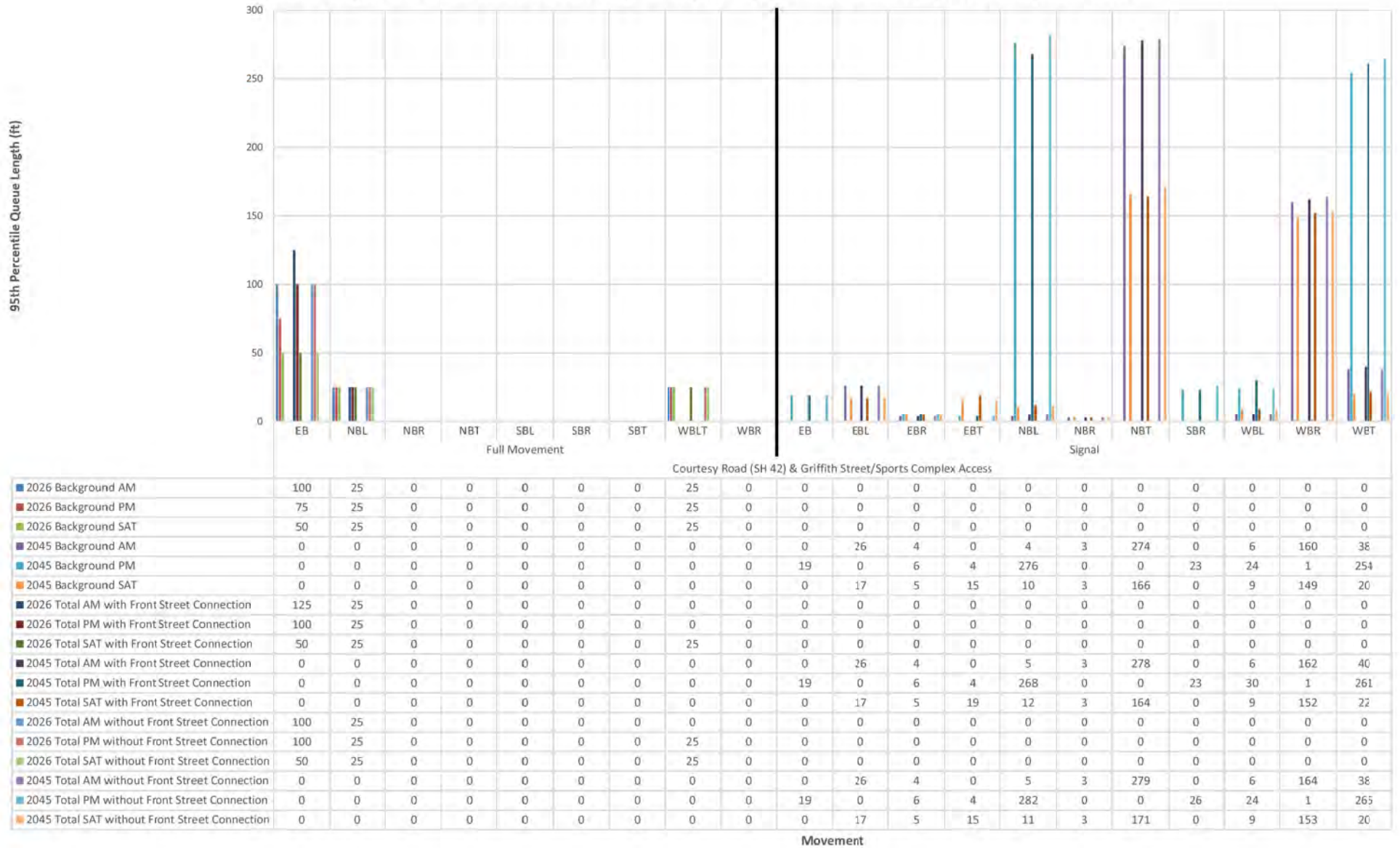
Queue Lengths - Intersection 4: Courtesy Road (SH 42) & S Boulder Road



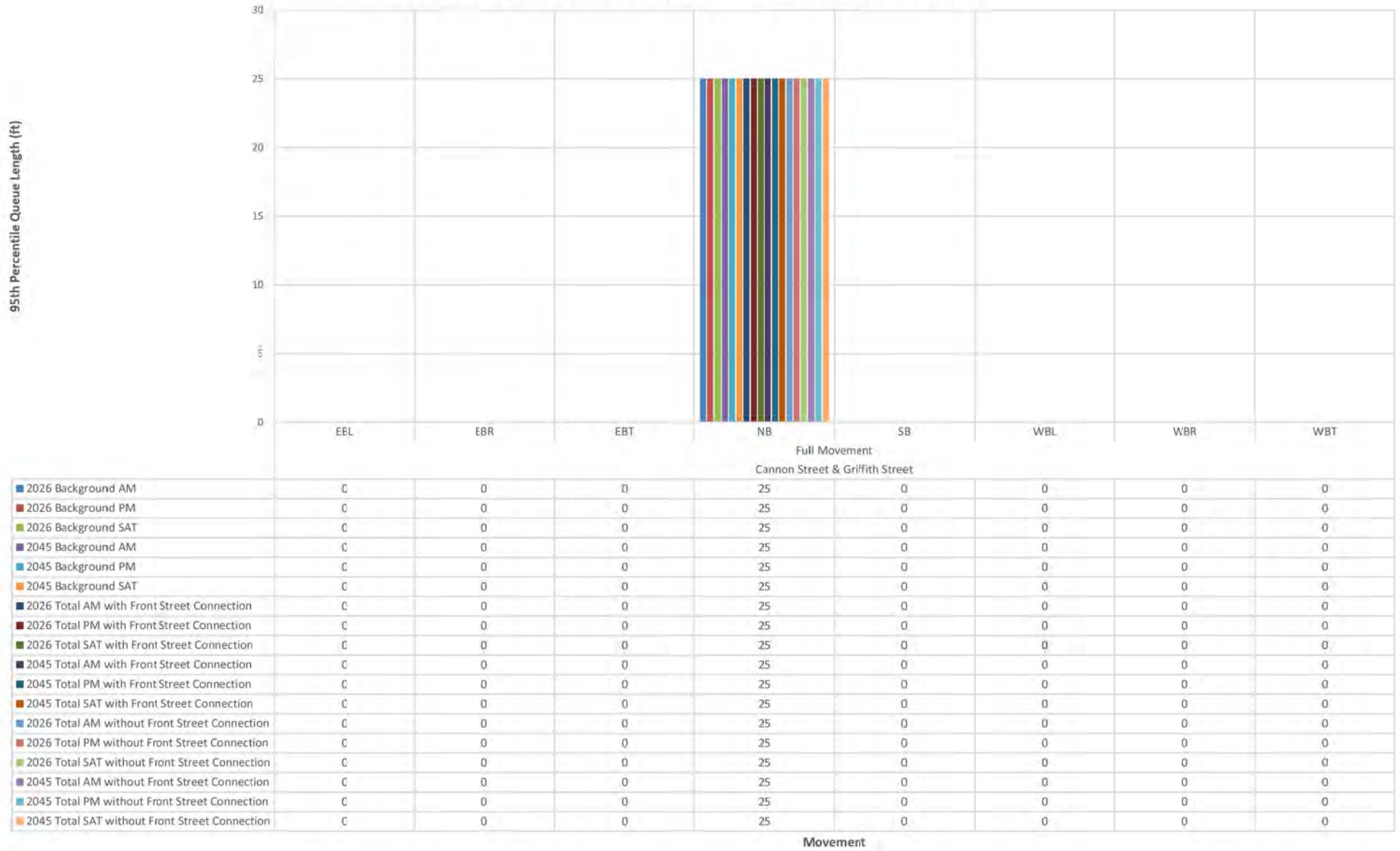
Queue Lengths - Intersection 5: Courtesy Road (SH 42) & Cannon Circle



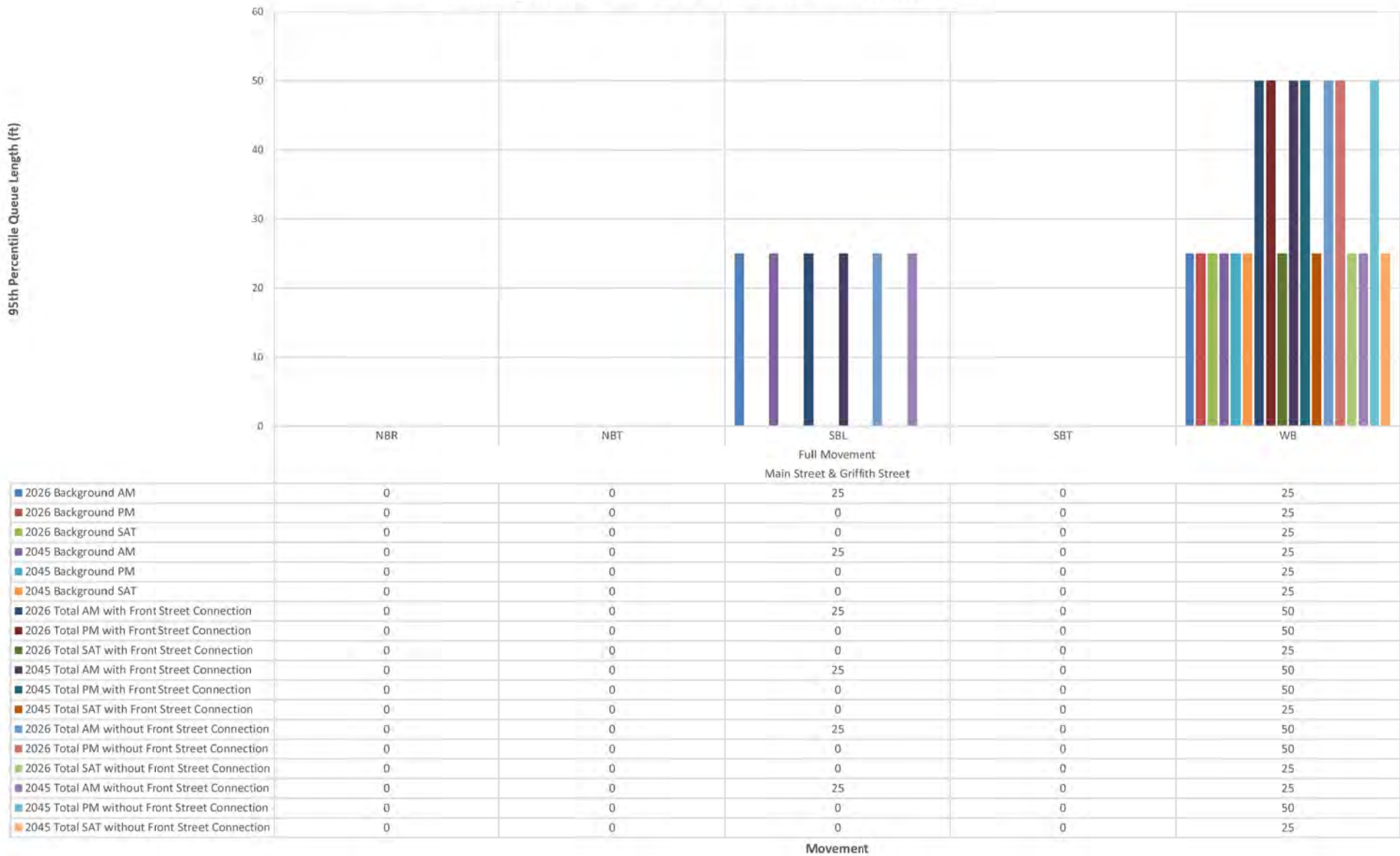
Queue Lengths - Intersection 6: Courtesy Road (SH 42) & Griffith Street/Sports Complex Access



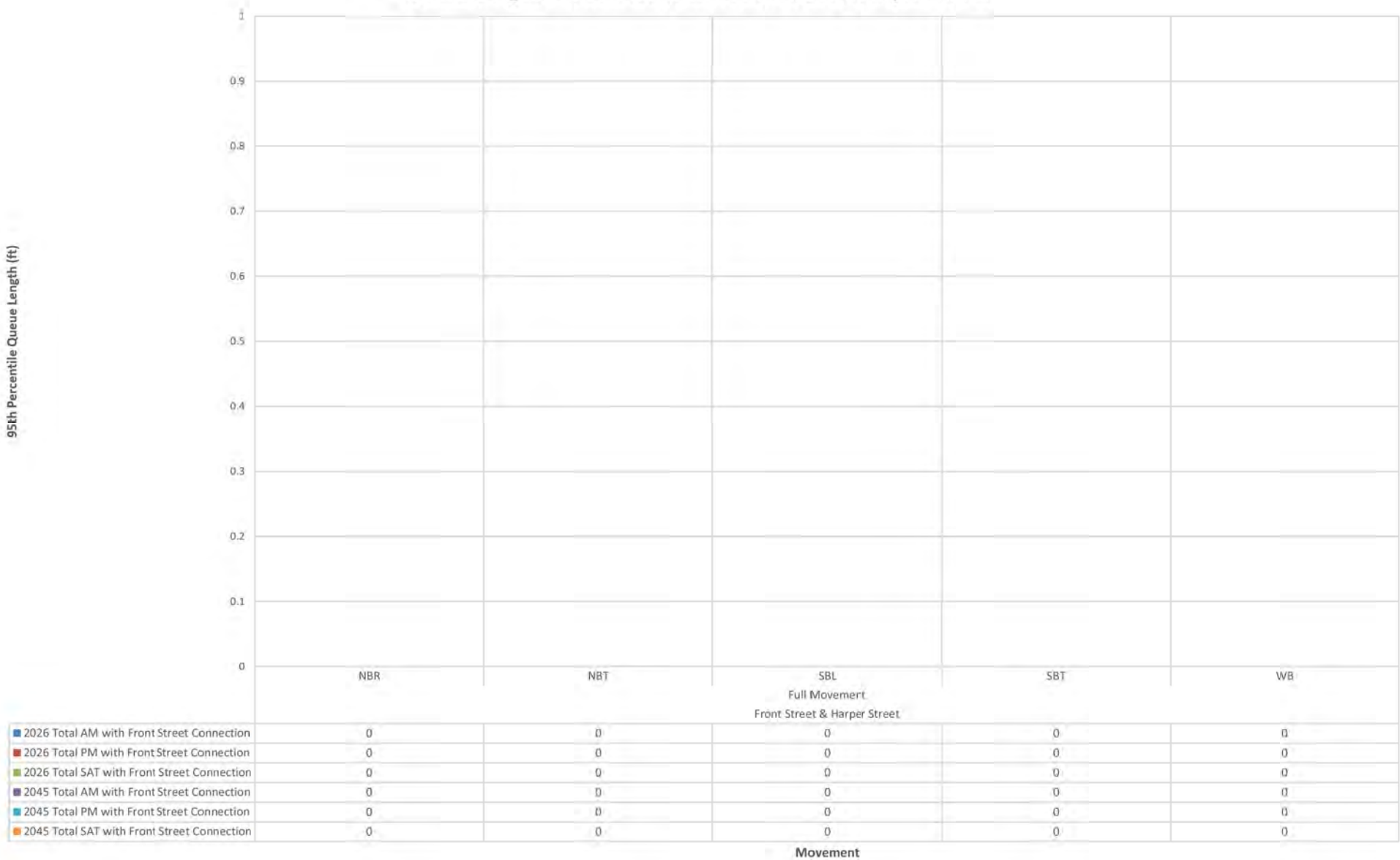
Queue Lengths - Intersection 7: Cannon Street & Griffith Street



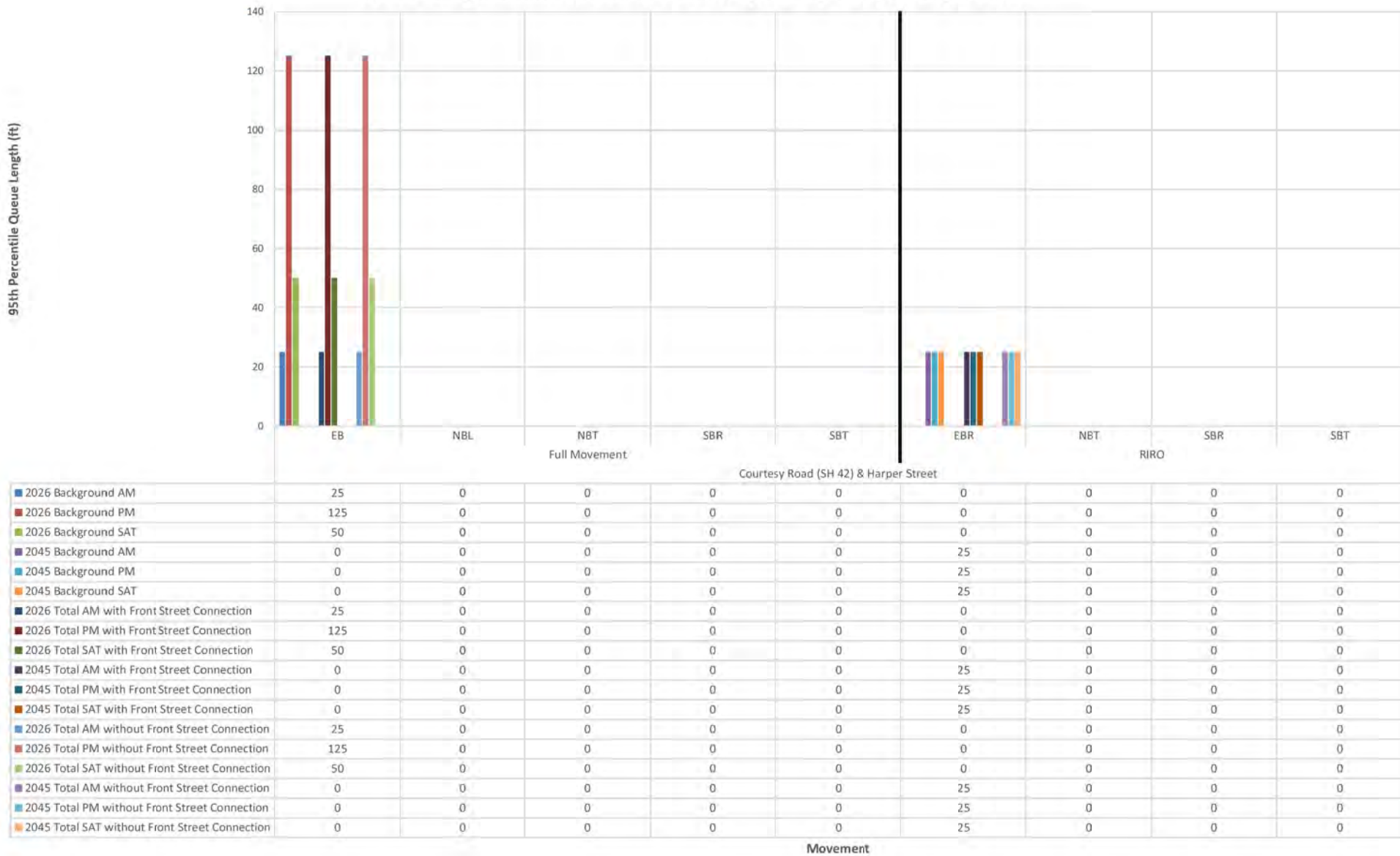
Queue Lengths - Intersection 9: Main Street & Griffith Street

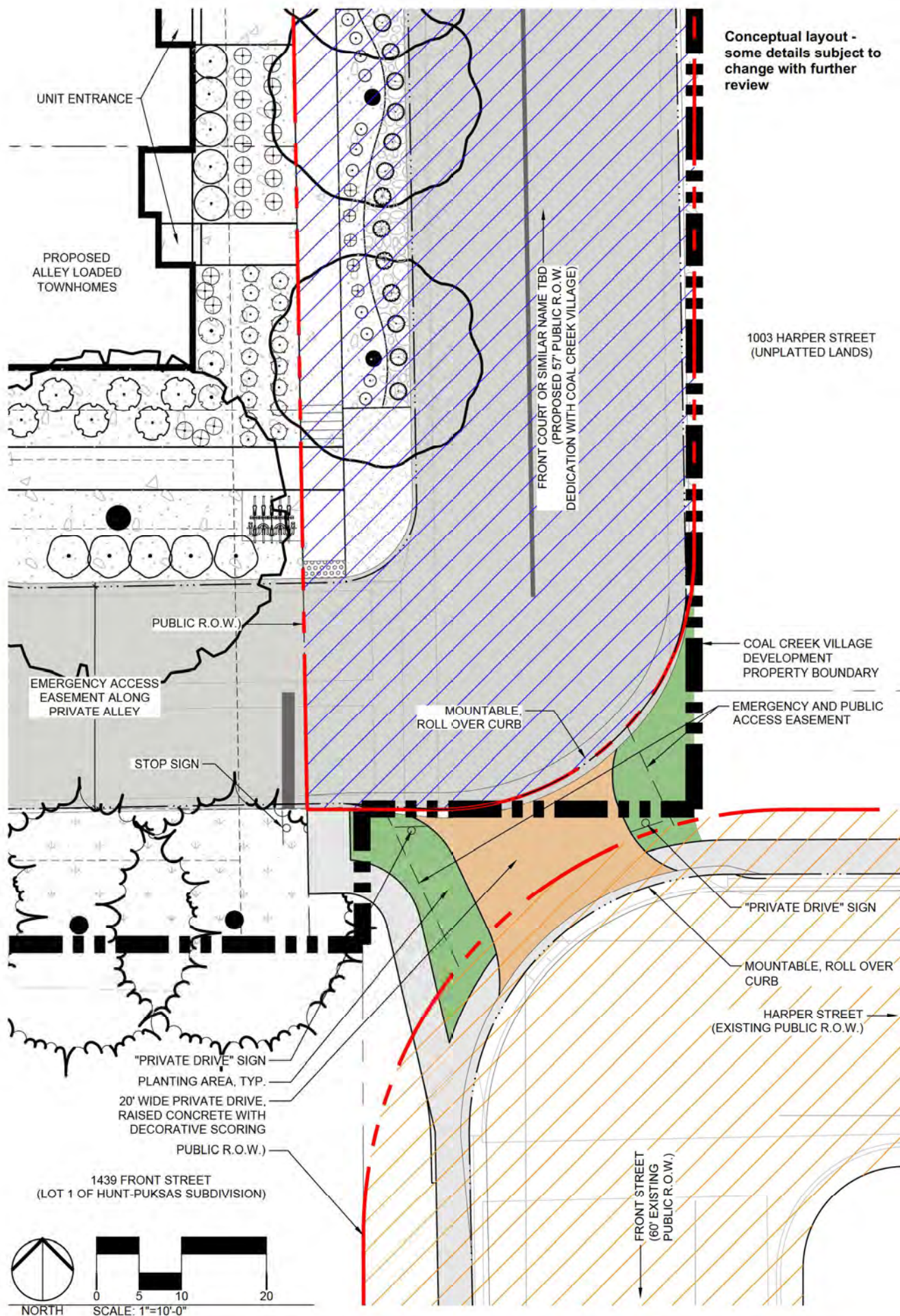


Queue Lengths - Intersection 10: Front Street & Harper Street

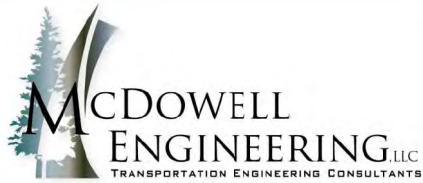


Queue Lengths - Intersection 11: Courtesy Road (SH 42) & Harper Street





Conceptual layout -
some details subject to
change with further
review



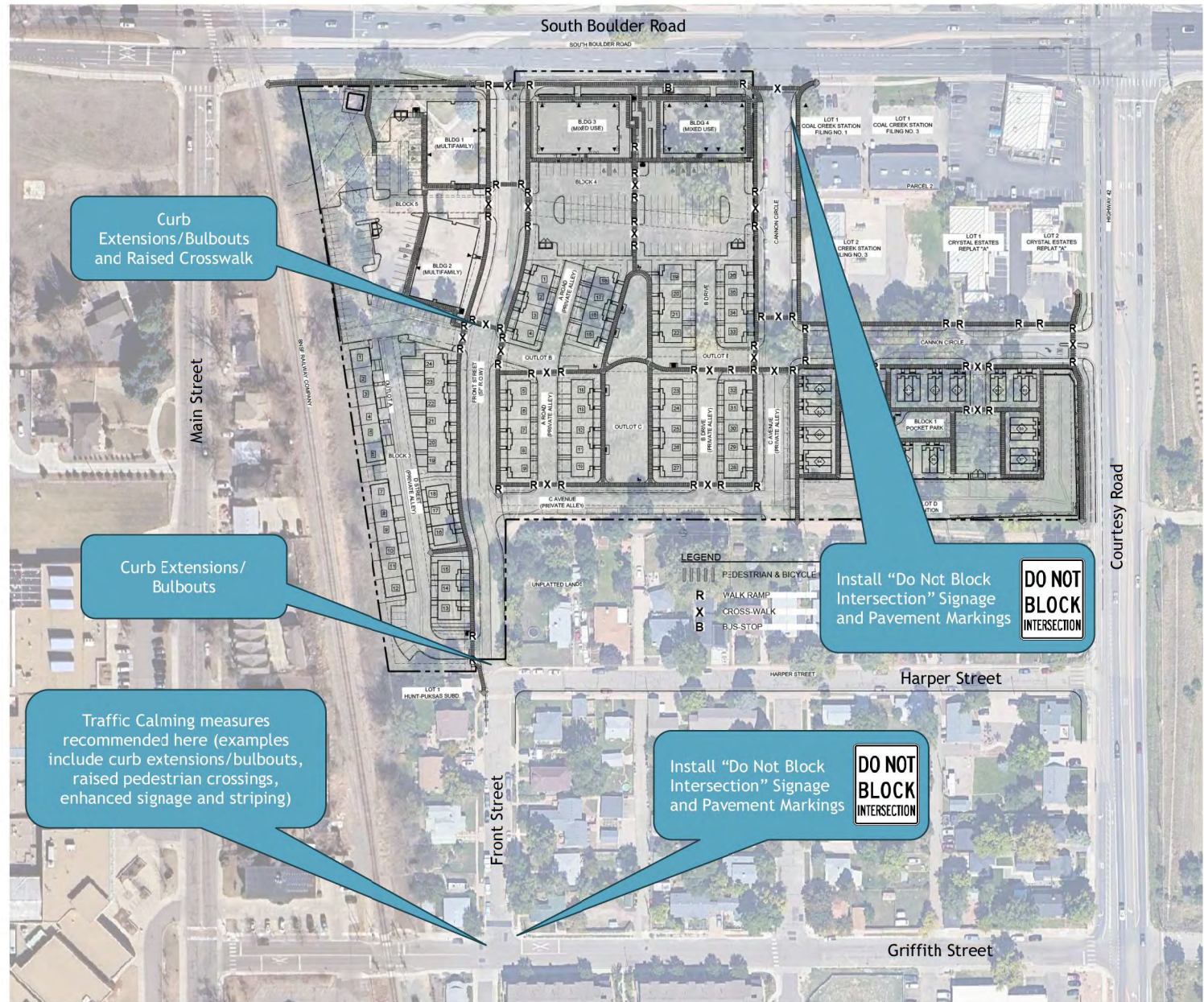
Coal Creek Village

Traffic Calming Concepts

June 3, 2025

Revised July 18, 2025

Revised August 25, 2025



Save Little Italy - Push For Responsible Development of Coal Creek Village



The Issue

Dear Neighbors and Friends,

As residents of Louisville, and especially those of us in the historic Little Italy neighborhood, we welcome thoughtful growth. Development can bring energy and opportunity to our city — and it must also respect existing neighborhoods, schools, and infrastructure.

The current Coal Creek Village plan poses serious concerns that could negatively impact Little Italy, DELO, Louisville Middle School, and the broader community. We are asking the City of Louisville and the developers to slow down, listen, and work with residents to find responsible and creative solutions before approvals move forward.

Quick Overview:

-Traffic & Safety: Don't route 900% more cars down Little Italy's one-block of Front Street and its alley — this is a street where pedestrian traffic, including kids to school is high, that

leads to a parking lot, a train crossing, and into the already unmanageable Middle School traffic. Make reasonable plans for traffic safety, particularly where an emergency evacuation is concerned.

-Neighborhood Character: Protect historic Little Italy's access, safety, and livability by keeping through-traffic out and ensuring fair utility and alleyway improvements. The current Planning Department's focus on densification is working counter to Louisville's values.

-Green Space & Drainage: Require more trees, green or open space, and stormwater management to prevent flooding, preserve neighboring houses, and deal with snow storage. We stand, in this community for parks, open space, trail connectivity, and childrens safe pathways to school.

Expanded Concerns

1. Traffic & Safety on Front Street and the Alley Behind Harper St.

Current city plans route significant traffic through Little Italy — a small, historic block that was never designed for cut-through driving. This is an attempt to solve already deficient road infrastructure that causes traffic delays already.

With 188 units planned (vs. the originally approved 51), this could bring up to 900% more cars directly into a school zone where Louisville Middle School kids walk (no buses provided), and traffic is already messy twice a day. It also greatly increases the risk of disaster in the case of emergency evacuations like the one that came just a few years ago with the Marshall Fire. The gridlock that happened in this area would only be worsened by adding 188 households to evacuate and would in no way be resolved by opening Front Street.

Residents ask that the Front Street and alley connections be limited to emergency vehicles, bikes, and pedestrians only. Other developments in Louisville have had to be retroactively closed to through traffic — let's prevent that mistake here. We also have proposed and discussed various solutions including making the developer's part of Front Street be a non straight street, using the alley access to access both neighborhoods, and requesting the developer to put funds towards solving the Hwy 42/S. Boulder Rd. intersection so that traffic funneling is not necessary. The Planning Department has refused to consider other solutions and has communicated that the Front Street throughway is their only solution.

2. Green Space, Drainage, and Flood Risk

The site is a natural drainage area and contains small wetlands vital to wildlife. The Goodhue Ditch also runs through the property. Current plans increase impermeable

surfaces, creating real flooding risks for Little Italy and Hwy 42. As the developers have yet to show residents the engineering plans for drainage, only have explained that they plan a detention pond, real fears exist around an area of town that already floods in wet conditions.

The proposed alleyway drainage is inadequate and could leave residents and the city with costly long-term problems.

We are asking for modern stormwater design, preserved wetlands, and sufficient green space with mature tree plantings, especially where the development meets existing neighborhoods. One solution the residents have proposed is to put a park in the Southwest corner of the site, which would allow for storm storage, permeable ground, a buffer between the old neighborhood and the new development, and fulfill the land dedication requirement that the city is waiving - their explanation being that historically they've waived these requirements when the previous approval had it waived. This is an example of the city taking a pro developer stance rather than working with or for the residents and working ways that are set, rather than searching for creative solutions to real problems.

3. Preserving Neighborhood Character & Fair Access

Little Italy has relied on its alleyways and property access for over 70 years, and was platted in the late 1800s. Current designs would cut off or narrow this access, creating legal risks (including Adverse Possession claims) and threatening residents' rights. The city claims that they need to create a grid pattern to match the downtown grid of streets, but have failed to note that current infrastructure does not allow nor will ever allow a grid system to exist east of the railroad tracks, where the proposed development site lies. Developers could adjust the plan slightly — removing as few as 4 units — to maintain fair alley access while still achieving their goals. They could also share and improve the alley in use rather than building a new road directly parallel to the current alley. Residents have also proposed this solution as a win-win for both Little Italy and the new development, to no comment from developer or City of Louisville. We also ask for shared infrastructure improvements, including buried utilities, sewer and water upgrades, and neighborhood buffering, so that old and new neighborhoods thrive together. This stems from problems already arising in Little Italy with old systems failing in the recent past. In the least, we feel it is reasonable for a city official who has the knowledge about connecting these two neighborhoods facilities be present at the Planning Commission meeting and that residents get to hear a plan that makes sense.

Our Request

We are not anti-development. We are pro-responsible development. We simply ask that the City of Louisville Planning Commission not approve the Preliminary Plat until:

Traffic cut-throughs into Little Italy are removed or redesigned for safety, and traffic plans around emergency evacuations are developed.

Drainage, snow removal, and green infrastructure are addressed, and

Resident access and neighborhood character are protected.

This is about finding common ground — building a new neighborhood that works with, not against, the ones that are already here.

Please sign to show your support for a safer, greener, and more respectful Coal Creek Village development.

Thank you for standing with your neighbors.

City Council

November 18, 2025 (1st Reading)

COAL CREEK VILLAGE

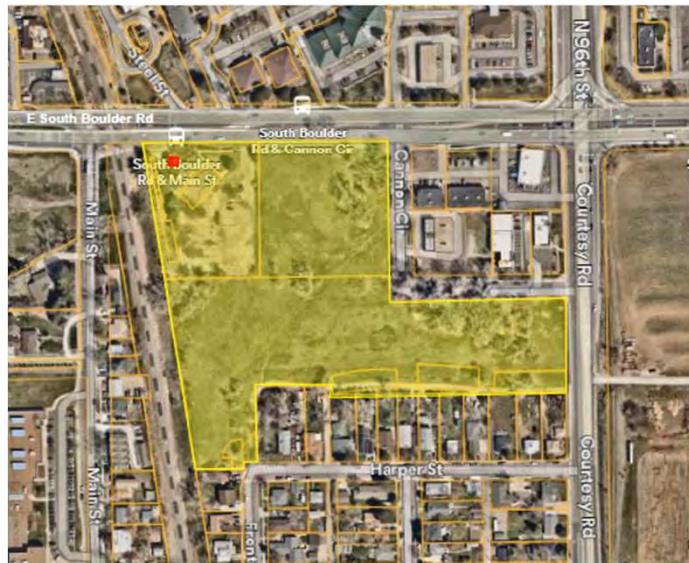
Approval of Ordinance No. 1910, Series 2025, rezoning portions of Caledonia Place Subdivision Plat from CC-MU (Commercial Community – Mixed Use) and R-M (Residential Medium Density) to MU-R (Residential Mixed Use) and Amending Exhibit A, Land Use Exhibit, Referenced in LMC Chapter 17.14.



Presented by Mail Post, AICP, Senior Planner

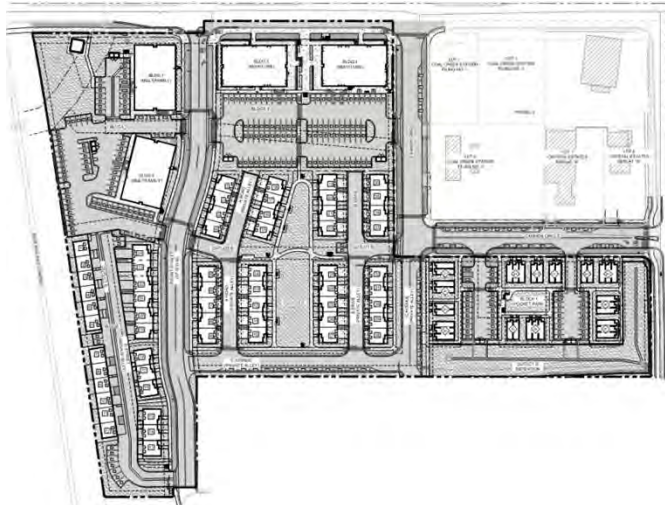
Coal Creek Village

- Planning Commission hearings held on September 12th, 2024 and October 10th, 2024.
- Planning Commission requested a revised Traffic Impact Study (TIS), continued hearing to December 12, 2024.
- Planning Commission hearing held on October 9th, 2025.



Summary: Coal Creek Village

- Approval of a Preliminary PUD and Plat for 188 dwelling units and 13,534 square feet of commercial space on 10.7 acres
- Rezoning from Commercial Community Mixed-Use (CC-MU) and Residential Medium Density (R-M) to Residential Mixed-Use (MU-R)
- Amendment to Land Use Plan, Exhibit A
- Special Review Use to allow multifamily on the ground floor in the MU-R zone district



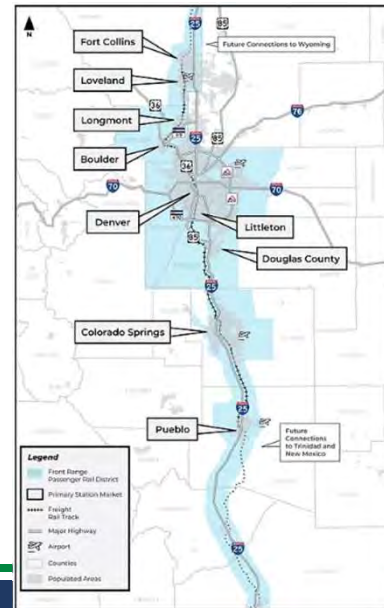
Background: Coal Creek Village

- Located in the Highway 42 Revitalization Area and the Highway 42 Urban Renewal Area.
- In 2013, the property was rezoned from Commercial Business (C-B) to MU-R and CC-MU.
- In 2016, the City Council approved a Final PUD and Plat, known as Coal Creek Station, allowing 51 dwelling units and almost 29,500 square feet of commercial space.
- Applicant did not execute the Final PUD, and eligibility for permit issuance lapsed on May 17, 2019.



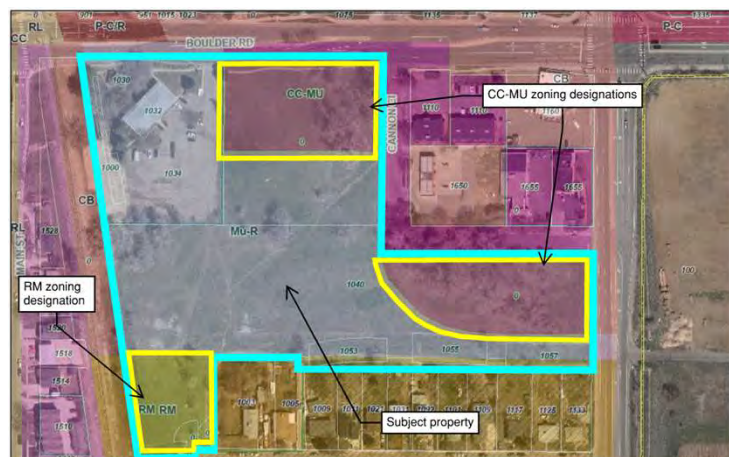
Background: HWY 42 Revitalization Area & Transit

- 2024: RTD completed the *Northwest Rail Peak Service Feasibility Study*, with participation from Louisville and other northwest jurisdictions.
- March 2025: RTD, CDOT, and the Front Range Passenger Rail District (FRPRD) submitted an implementation plan to the State, confirming that shared passenger rail service in the Northwest Corridor is feasible and supported by funding through SB 24-184, SB 24-230, and a federal CRISI grant.
- June 2025: RTD entered into an inter-agency agreement to negotiate track access with BNSF for future passenger rail operations.
- SB 24-184: Establishes a rental vehicle fee to support Northwest Rail implementation
- SB 24-230: Creates a fee on oil and gas production, with a portion dedicated to passenger rail funding.

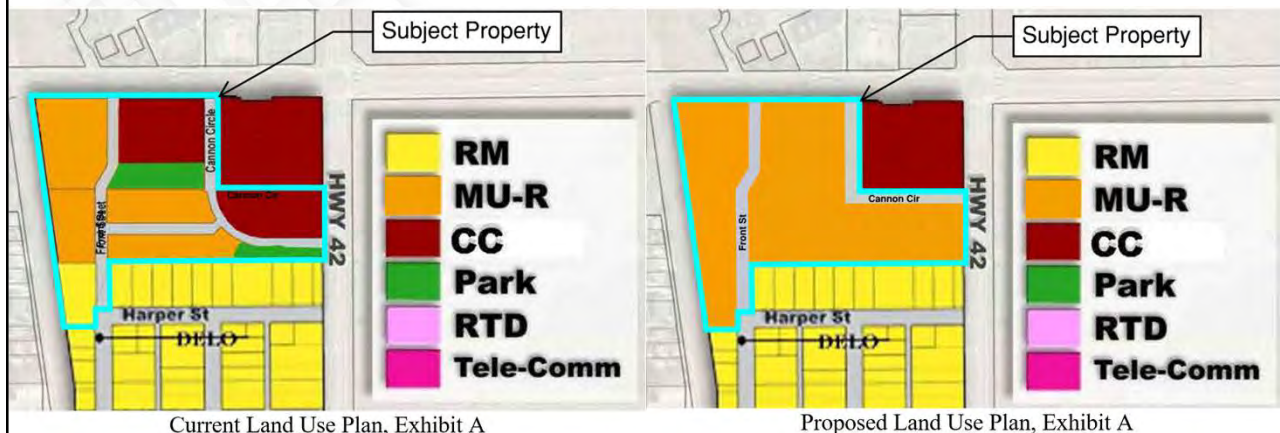


Proposal: Coal Creek Village – Rezoning

- Rezone the northeast and east side of the site from CC-MU to MU-R
- Rezone a southwest portion of the site from R-M to MU-R
- In 2013, the property was rezoned from Commercial Business (C-B) to MU-R and CC-MU.
- This is a discretionary rezone, as the site was already rezoned under the mandatory provision.



Proposal: Coal Creek Village – Land Use Plan

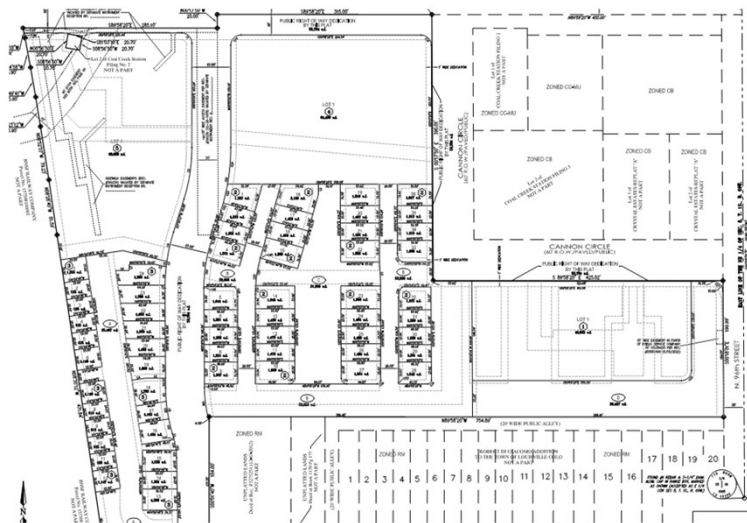


Current Land Use Plan, Exhibit A

Proposed Land Use Plan, Exhibit A

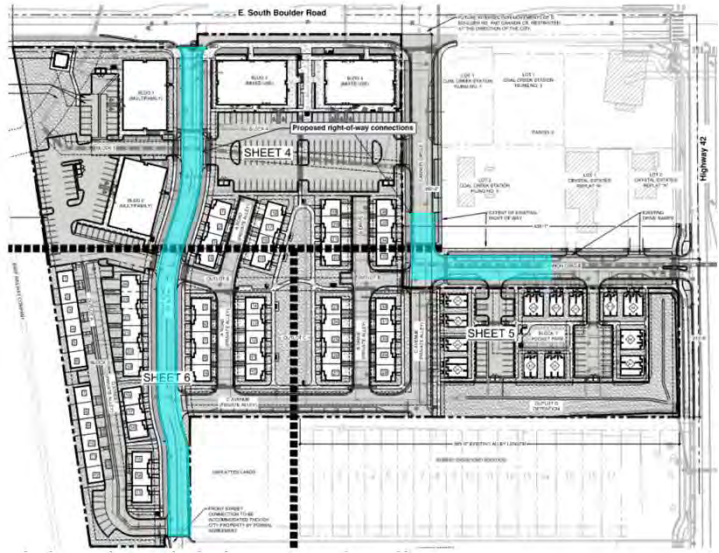
Proposal: Coal Creek Village – Preliminary Plat

- Subdivide the 10.7-acre site
- 60 townhome lots, allowing for the fee-simple sale of those units.
- 4 Outlots will include drainage and detention areas, utility areas, private streets, and open space and parks.
- Two private parks are included totaling 23,258 square feet.
- The City will accept 1.2 acres of right-of-way dedication to allow for the construction of Front Street and Cannon Circle through site.



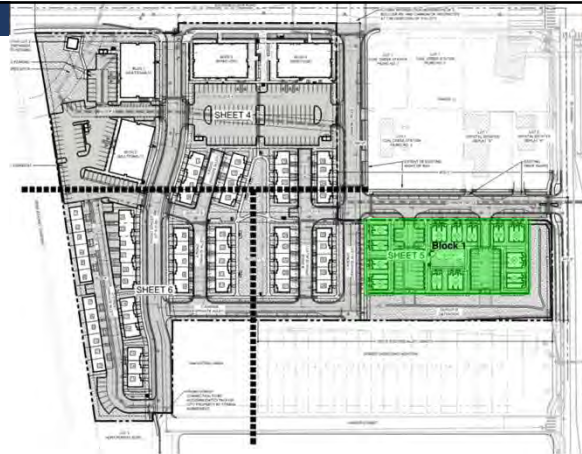
Proposal: Coal Creek Village – Preliminary PUD

- 60 townhomes, 96 apartments, and 32 “micro” townhome units are proposed.
- Apartments will be in 4 buildings, two mixed-use and two exclusively residential
- 13,534 square feet of commercial space
- Front Street and Cannon Circle will be connected
- Detached sidewalks and tree lawns
- 23,258 square feet of park space
- 316 parking spaces proposed



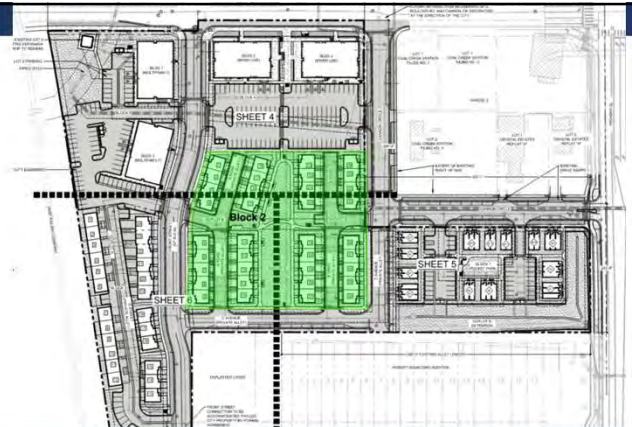
Proposal: Block 1

- 32 “micro” townhomes between 350-400 square feet in size.
- 22 – 25-feet in height.
- Centralized, 2,350 square-foot pocket park
- Applicant states availability at an attainable price point



Proposal: Block 2

- 36 four- and five-unit townhomes
- 40-foot maximum height.
- Centralized, 20,908 square-foot private park



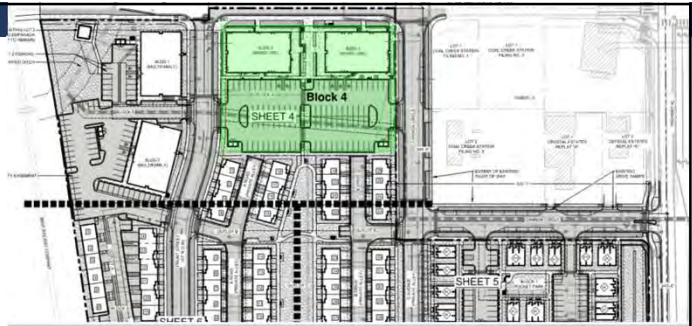
Proposal: Block 3

- 32 three- and six-unit townhomes
- Height restricted units adjacent to Little Italy
- All other units 40 feet in height



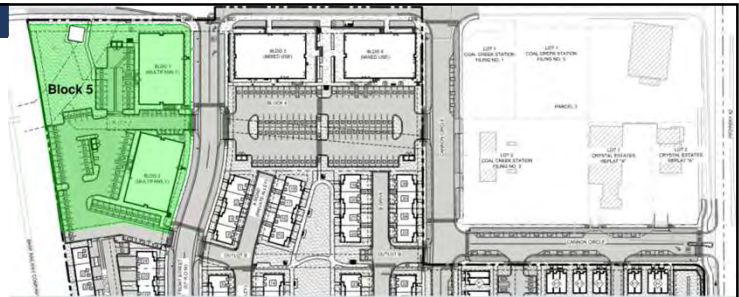
Proposal: Block 4

- Two mixed-use buildings and associated parking
- Ground-floor commercial and multifamily on floors 2 and 3
- Maximum height of 45 feet
- Adjacent to South Boulder Road



Proposal: Block 5

- Two multifamily buildings and associated parking
- Maximum height of 45 feet
- SRU required for ground floor multifamily



Analysis: Coal Creek Village – Rezoning

- LMC Sec. 17.44.050 – Declaration Policy for Rezoning
 - *Policy No. 2 The area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area;*
- Changed Conditions:
 - Lack of market feasibility for purely commercial uses.
 - Stimulate development of the vacant areas to achieve mixed-use environment on arterial roadway and provide additional housing.

Analysis: Coal Creek Village – Preliminary Plat

- Conforms to LMC Sec. 16.12.075:
 - ✓ Conforms to Title 16 (subdivisions)
 - ✓ Consistent with the Comprehensive Plan
 - ✓ Utility service and circulation proposals meet city standards.
 - ✓ Public Land Dedication satisfied with previous subdivisions.

Analysis: Coal Creek Village – Preliminary PUD

- MUDDSG – block width and length design standards
- MUDDSG – public sidewalk width
- LMC Sec. 17.14.060 – Minimum lot width of 40 feet
- LMC Sec. 17.14.060 – Minimum building coverage of 40%
- LMC Sec. 17.14.060 – 20-foot rear yard setback
- LMC Sec. 17.14.060 – 70% of street facing property lines must contain building



Analysis: Coal Creek Village – Preliminary PUD

- Inclusionary Housing
 - Applicant intends to satisfy the inclusionary housing requirement with on-site units.
 - 12% of units shall be affordable
 - Half shall be provided at or below 60% of AMO
 - Half shall be provided between 60% and 80% AMI
 - Design, size, and materials shall be equivalent to market rate units.

Analysis: Coal Creek Village – SRU

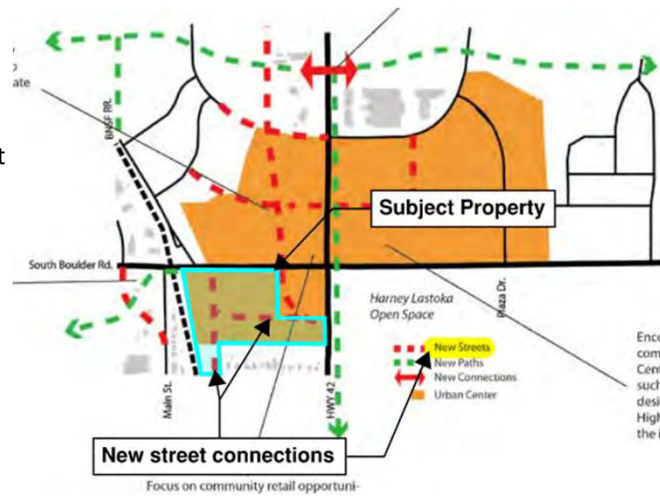
- Comprehensive Plan policies support corridor development pattern consisting of multifamily, mixed-use development.
- Redevelopment of the site will lead to economic stability and in-line with the Highway 42 Revitalization area goals
- The site of the proposed SRU functions efficiently
- External effects are controlled through appropriate lighting, building and site design, and additional road networks.
- Adds pedestrian ways and further improvements along South Boulder Road

Analysis: Coal Creek Village – MUDDSG

- MUDDSG establish standards for site design, circulation, and building form within the MU-R district.
- Street and block layout mirror Downtown Louisville's street network, creating a connected, walkable framework.
- The street connections promote multimodal access, improves circulation and visibility, and supports future connections to surrounding neighborhoods.
- Overall design advances the MUDDSG goal of a cohesive, mixed-use environment.

Analysis: 2013 Comp Plan

- Property lies within the Highway 42 and South Boulder Road Urban Center, designated as an Urban Corridor.
- Comprehensive Plan calls for an interconnected street network, multimodal access, and pedestrian-scaled building design.
- Supports redevelopment with mid- to high-density multifamily and mixed commercial uses.
- Envisions a cohesive, walkable center with new street connections and smaller parcels
- Corridor development type promotes retail, commercial, and multifamily uses that reinforce a connected urban fabric.



Analysis: 2013 Comp Plan Policies

- PRINCIPAL NH-3.1 - Streets shall form an interconnected network (p. 37).
- POLICY NH-3.4 - Diverse housing opportunities shall be available for residents of varying income levels (p. 38).
- PRINCIPLE NH-4 - The character and identity of existing residential neighborhoods should be maintained while allowing for evolution and reinvestment (p. 38).
- POLICY NH-4.7 - Housing should support vibrant retail and commercial centers that serve local residents (p. 38).
- PRINCIPLE NH-5. - There should be a mix of housing types and pricing to meet changing economic, social, and multi-generational needs of those who reside, and would like to reside, in Louisville (p. 38).
- POLICY NH-5.3 - Higher density housing should be located primarily in the centers and corridors of the Framework (p. 38).
- PRINCIPAL ED-3 - The City should be responsive to market opportunities as they occur and maintain and enhance the City's competitive position to attract development that adheres to the Community Vision (p. 38).

Analysis: SBR Small Area Plan

- Designates the site for medium-density residential (10–20 du/ac) and retail/office uses.
- Retail/office uses align with the property's current CC-MU zoning.
- Encourages new street connections, including the **Front Street connection**, to strengthen overall network connectivity and support a walkable mixed-use environment



Analysis: Transportation Plan

- Transportation Plan (2019) (TP)
 - Provides a citywide framework for a safe, efficient, multimodal transportation system.
 - Guides near- and long-term decisions consistent with community values and land use goals.
- Application Consistency with TP Goals:
 - Efficient and Safe Transportation Systems (p. 1.6): Adds vehicular, bicycle, and pedestrian connections that minimize network conflicts.
 - Cohesive and Layered System of Streets and Trails (p. 1.6): Expands multimodal connectivity for walking, biking, and driving.
 - Complete Streets that Enhance Livability (p. 1.7): The Front Street connection improves circulation for all modes with traffic calming and safer pedestrian crossings

Analysis: Housing Plan

- Establishes goals to:
 - Increase opportunities for residential development in appropriate locations
 - Expand and maintain access to affordable housing
 - Diversify housing stock through mixed-use and mixed-income neighborhoods (p. 26)
- Key Actions Supported by This Application:
 - Action 1.1 (p. 31–32): Supports rezoning and redevelopment of underutilized commercial property for additional residential capacity.
 - Action 3.2 (p. 46–47): Expands opportunities for multifamily housing within commercial zones.
 - Housing Needs Assessment (p. 2): Advances goal to diversify Louisville’s housing stock to meet future demand.

Analysis: Traffic Impact Study

- Updated TIS includes new counts, expanded intersection analysis, and long-term conditions with and without the Front Street connection.
- Results show the development integrates safely and efficiently into the roadway network **with** the Front Street connection.
- The Front Street connection provides:
 - Improved circulation and traffic distribution
 - Transportation redundancy and network resilience
 - Safer, more efficient operations consistent with City and regional planning efforts
- **Staff find the connection essential to maintaining acceptable traffic conditions and network compatibly.**

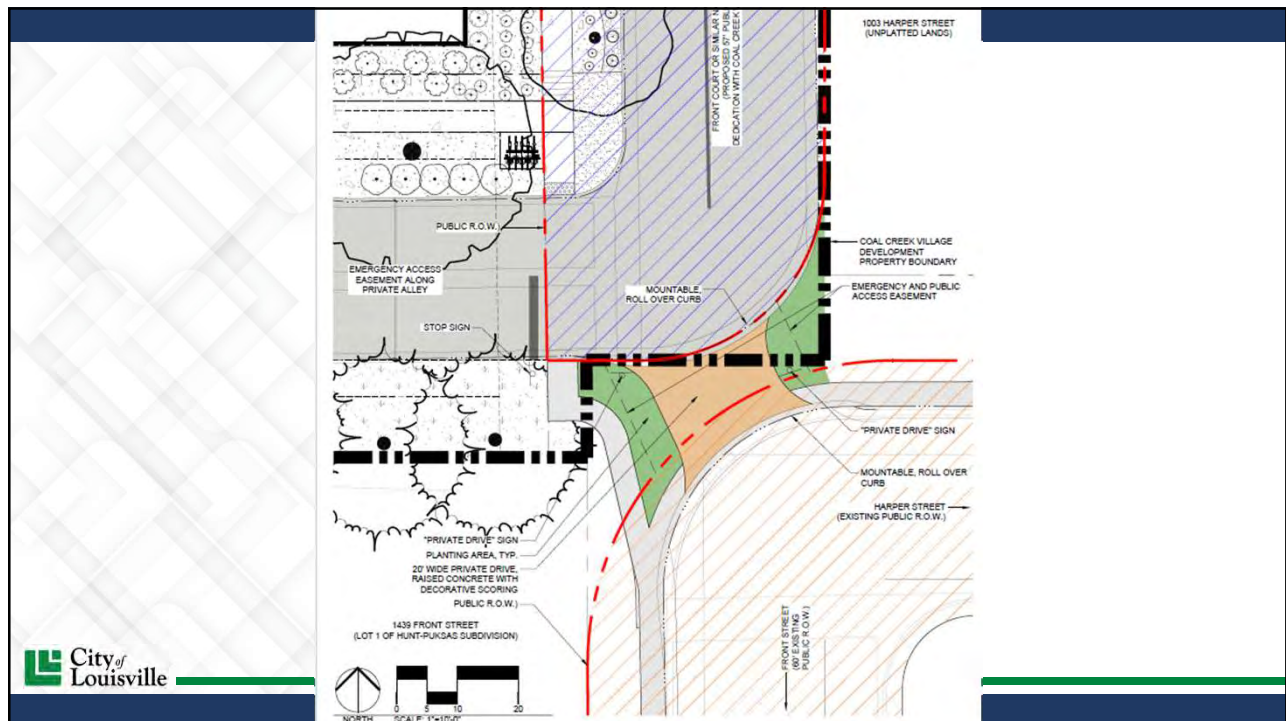
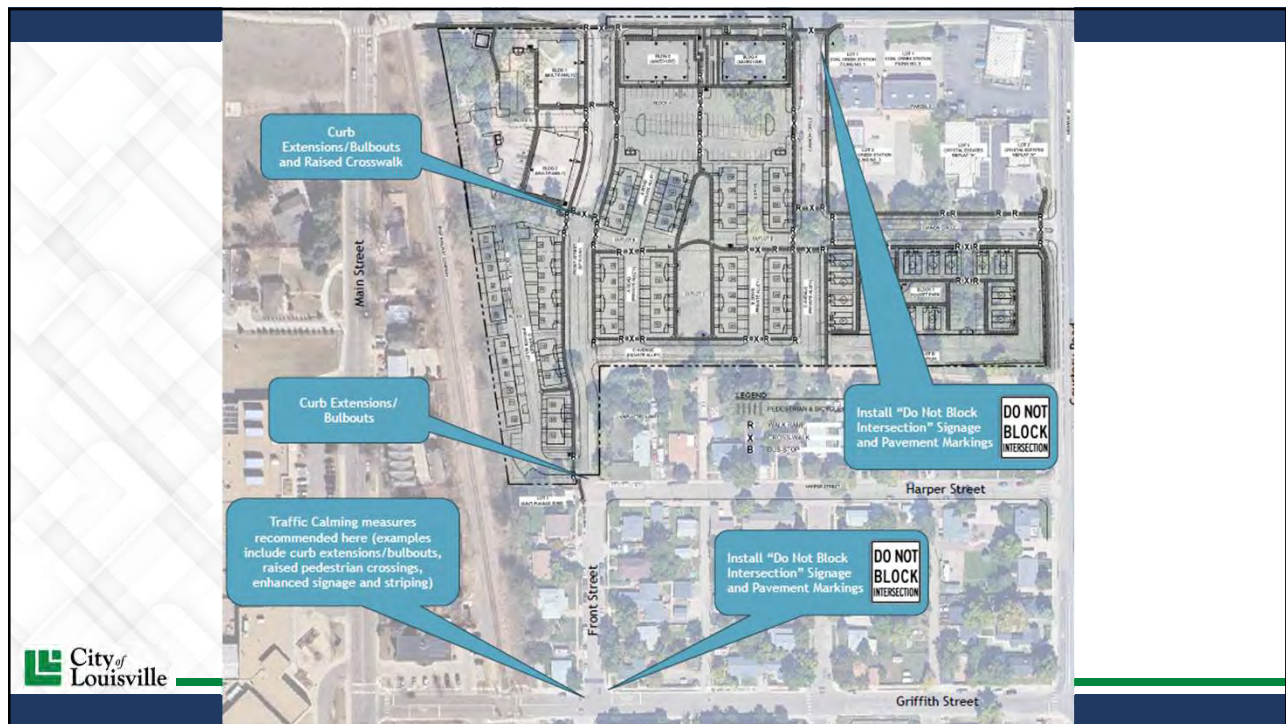


Table 11: Anticipated Front Street Traffic Volumes with and without the Connection between South Boulder Road and Griffith Street

Scenario	Traffic Volume in vph (vehicle trips per hour)			Time between vehicles (average gap time)		
	AM	PM	SAT	AM	PM	SAT
Total 2045 With Front St Connection	79 vph	93 vph	67 vph	1 car every 45 seconds	1 car every 38 seconds	1 car every 53 seconds
Total 2045 Without Front St Connection	9 vph	13 vph	13 vph	1 car every 400 seconds (6.5 minutes)	1 car every 276 seconds (4.6 minutes)	1 car every 276 seconds (4.6 minutes)

Table 9: Total Traffic LOS (with the Front Street Connection)

#	Intersection	Traffic Control	Approach	Year 2026 Total with Front Street Level of Service (Delay in Seconds)			Year 2045 Total with Front Street Level of Service (Delay in Seconds)		
				AM	PM	SAT	AM	PM	SAT
				EB	WB	NB	EB	WB	NB
1	South Boulder Road & Main Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
2	South Boulder Road & Front Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
3	South Boulder Road & Cannon Circle	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
4	SH 42 (Courtney Road) & South Boulder Road	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
5	SH 42 (Courtney Rd) & Cannon Circle	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
6	SH 42 (Courtney Road) & Griffith Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
7	Griffith Street & Cannon Circle	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
8	Griffith Street & Front Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
9	Griffith Street & Main Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
10	Harper Street & Front Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
11	SH 42 (Courtney Rd) & Harper Street	Signal	EB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			WB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			NB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)
			SB	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)	A(12.7)

Recommendation: Coal Creek Village

Staff recommend approval of an Ordinance No. 1910, Series 2025, rezoning portions of Caledonia Place Subdivision Plat from CC-MU (Commercial Community – Mixed Use) and R-M (Residential Medium Density) to MU-R (Residential Mixed Use) and Amending Exhibit A, Land Use Exhibit, Referenced in LMC Chapter 17.14.

Second Reading and Public Hearing on January 6th, 2026

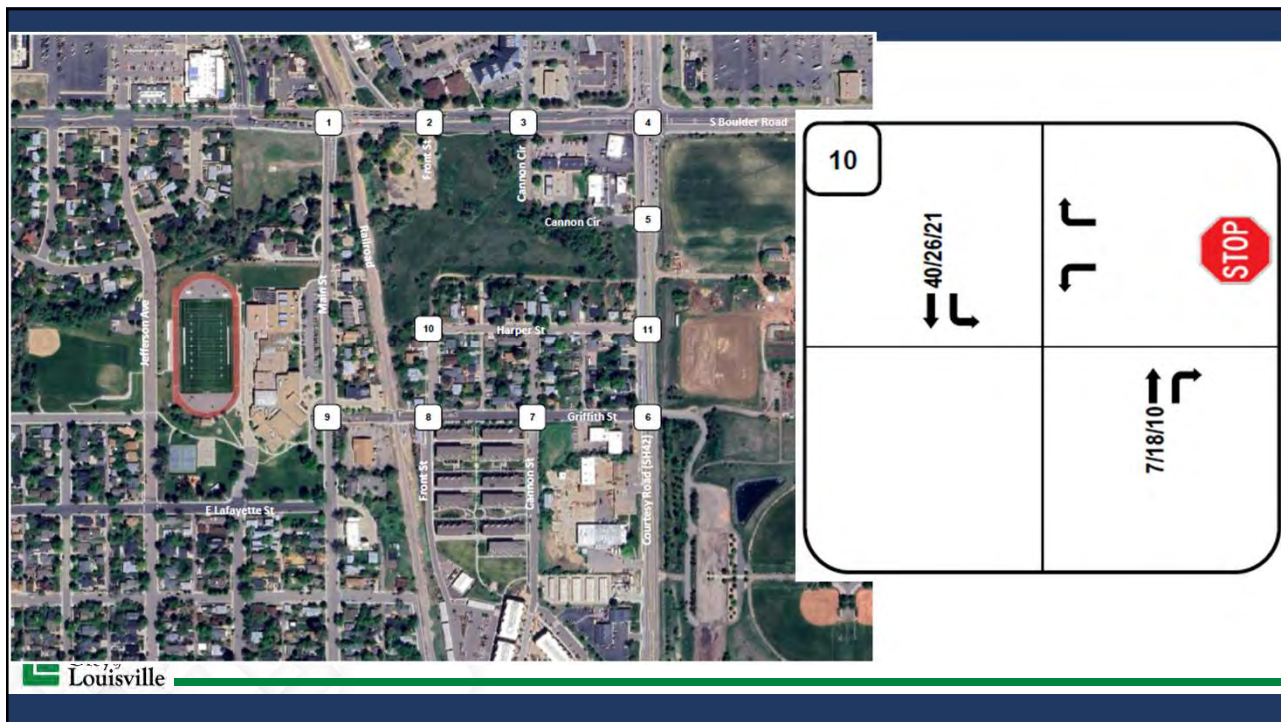


Table 5: Background Traffic Level of Service												
#	Intersection	Traffic Control	Signal	Year 2026 Background Level of Service (Delay in Seconds)				Year 2045 Background Level of Service (Delay in Seconds)				
				AM		PM		AM		PM		
				A	P	A	P	A	P	A	P	
1	South Boulder Road & Main Street	Signal	N/S	EST	A(7.5)	A(9.6)	A(6.6)	A(8.5)	F(10.8)	A(12.4)	F(12.4)	A(12.4)
				EBR	A(11.2)	A(14.4)	A(11.4)	A(12.1)	A(13.9)	A(14.4)	A(13.9)	A(14.4)
				WBL	A(5.1)	A(7.4)	A(3.1)	A(5.1)	A(5.1)	A(5.1)	A(5.1)	A(5.1)
				NBT	A(10.0)	A(12.2)	A(10.0)	A(12.2)	A(12.2)	A(12.2)	A(12.2)	A(12.2)
				NBL	D(10.0)	F(15.3)	D(10.0)	F(15.3)	F(16.8)	F(16.8)	F(16.8)	F(16.8)
2	South Boulder Road & Front Street	N/S	Stop	NBR	B(13.9)	B(15.1)	B(14.4)	B(14.1)	F(21.9)	F(23.0)	F(23.0)	F(23.0)
				WBL	C(15.1)	C(24.3)	B(12.0)	C(20.5)	F(46.3)	F(46.3)	F(46.3)	F(46.3)
				NBT	A(10.0)	C(15.9)	A(12.2)	A(12.2)	C(20.1)	C(20.1)	C(20.1)	C(20.1)
				SB	C(15.1)	B(13.9)	C(12.0)	C(18.1)	F(15.1)	F(15.1)	F(15.1)	F(15.1)
				EBL	C(16.6)	B(16.6)	B(12.5)	C(24.8)	F(25.2)	F(25.2)	F(25.2)	F(25.2)
3	South Boulder Road & Canyon Circle	N/S	Stop	WBL	B(16.6)	C(16.6)	B(12.5)	C(24.8)	F(25.2)	F(25.2)	F(25.2)	F(25.2)
				NBT	B(12.2)	A(12.2)	A(4.3)	A(12.2)	F(24.8)	F(24.8)	F(24.8)	F(24.8)
				SB	D(10.0)	F(24.2)	F(25.1)	F(24.7)	F(78.7)	F(78.7)	F(78.7)	F(78.7)
				EBL	F(55.1)	F(112.1)	F(50.8)	F(63.8)	F(183.4)	F(183.4)	F(183.4)	F(183.4)
				EST	C(10.2)	D(46.2)	C(12.5)	C(29.4)	F(41.7)	F(41.7)	F(41.8)	F(41.8)
4	SH 42 (County Road) & South Boulder Road	Signal	N/S	WBL	B(16.6)	A(9.4)	F(76.6)	F(105.1)	F(167.8)	F(167.8)	F(167.8)	
				WBT	D(42.1)	D(47.3)	C(13.7)	C(48.4)	F(66.6)	F(66.6)	F(66.6)	F(66.6)
				WBR	A(4.6)	A(4.6)	A(1.8)	A(4.6)	F(14.1)	F(14.1)	F(14.1)	F(14.1)
				NBT	C(12.6)	F(76.8)	C(26.6)	C(35.8)	F(40.8)	F(40.8)	F(40.8)	F(40.8)
				NBR	A(4.6)	A(4.6)	A(1.8)	A(4.6)	F(14.1)	F(14.1)	F(14.1)	F(14.1)
5	SH 42 (County Road) & Canyon Circle	EB/Stop	N/S	EST	F(112.1)	F(249.4)	F(112.1)	F(249.4)	F(183.4)	F(183.4)	F(183.4)	
				WBT	F(11.2)	F(11.2)	D(10.0)	D(10.0)	F(46.3)	F(46.3)	F(46.3)	F(46.3)
				SB	B(17.0)	A(6.5)	A(5.4)	C(19.8)	A(6.5)	A(6.5)	A(6.5)	A(6.5)
				EB	F(66.6)	F(121.5)	F(66.6)	A(6.5)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
				NBL	A(11.4)	B(11.5)	C(15.7)	C(15.7)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
6	SH 42 (County Road) & Griffith Street	EB/WB/Stop	N/S	WBL	F(76.2)	F(115.0)	D(10.0)	D(10.0)	F(15.2)	F(15.2)	F(15.2)	
				NBT	A(10.0)	A(10.0)	A(11.1)	A(11.1)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
				NBR	A(5.1)	A(5.1)	A(1.8)	A(5.1)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
				SB	A(10.0)	A(10.0)	A(11.1)	A(11.1)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
				EST	C(10.2)	C(10.2)	A(11.1)	A(11.1)	F(15.2)	F(15.2)	F(15.2)	F(15.2)
7	Griffith Street & Canyon Street	N/S	Stop	EST	A(10.0)	A(10.2)	A(10.0)	A(10.0)	C(26.7)	C(26.7)	C(26.7)	
				WBL	A(10.0)	A(10.0)	A(11.5)	A(11.0)	A(10.0)	A(10.0)	A(11.5)	
				NBT	A(5.1)	A(10.3)	A(4.6)	A(5.1)	A(10.0)	A(10.0)	A(10.0)	
				WBT	A(10.0)	A(10.0)	A(11.5)	A(11.0)	A(10.0)	A(10.0)	A(11.5)	
				EB	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
8	Griffith Street & Front Street	N/S	Stop	WBL	D(10.0)	A(10.2)	A(10.1)	A(10.2)	D(10.2)	A(11.1)	A(11.1)	
				NBT	A(5.1)	A(10.4)	A(9.8)	A(9.8)	A(10.0)	A(10.0)	A(10.0)	
				WBT	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
				SB	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
				EB	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
9	Griffith Street & Main Street	WB/Stop	N/S	WBL	B(13.9)	B(13.9)	A(11.1)	B(13.9)	F(112.8)	F(112.8)	F(112.8)	
				NBT	A(10.0)	A(10.0)	A(11.1)	A(11.1)	F(15.2)	F(15.2)	F(15.2)	
				SB	A(11.3)	A(10.4)	A(9.9)	A(11.2)	A(10.0)	A(10.0)	A(10.7)	
				WBT	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
				EB	A(10.2)	A(10.2)	A(10.0)	A(10.2)	A(10.0)	A(10.0)	A(10.2)	
10	SH 42 (County Road) & Harpers Street	EB/Stop	N/S	EST	D(13.7)	F(110.9)	F(46.6)	F(147.7)	F(128.2)	F(128.2)	F(128.2)	
				NBL	B(10.4)	B(10.7)	A(9.9)	A(10.0)	F(15.2)	F(15.2)	F(15.2)	
				WBL	A(10.0)	A(10.0)	A(11.5)	A(11.0)	A(10.0)	A(10.0)	A(11.5)	
				NBT	A(5.1)	A(10.3)	A(4.6)	A(5.1)	A(10.0)	A(10.0)	A(10.0)	
				WBT	A(10.0)	A(10.0)	A(11.5)	A(11.0)	A(10.0)	A(10.0)	A(11.5)	

Table 9: Total Traffic LOS (with the Front Street Connection)													
#	Intersection	Traffic Control	Approach	Year 2020 Total with Front Street Level of Service (Delay in Seconds)					Year 2040 Total with Front Street Level of Service (Delay in Seconds)				
				AM		PM		SAT	AM		PM		SAT
				WB	EB	WB	EB	WB	WB	EB	WB	EB	WB
1	South Boulder Road & Main Street	Signal	EB	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
2	South Boulder Road & Front Street	N/SB	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
3	South Boulder Road & Cannon Circle	N/SB Stop	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
4	SH 42 (County Road) & South Boulder Road	Signal	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
5	SH 42 (County Road) & Cannon Circle	EB Stop	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
6	SH 42 (County Road) & Griffith Street	EB/WB Stop	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
7	Griffith Street & Cannon Street	Signal	EB	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4	C-24.4	C-23.9	C-24.4
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
8	Griffith Street & Main Street	N/SB Stop	EB	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
			WB	A-21.4	A-21.5	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2	A-20.2	A-19.5	A-20.2
9	Griffith Street & Harper Street	WB Stop	EB	C-23.9	C-23.9	C-23.4	C-23.9	C-23.9	C-23.4	C-23.9	C-23.9	C-23.4	C-23.9
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
10	SH 42 (County Road) & Harper Street	EB Stop	EB	C-23.9	C-23.9	C-23.4	C-23.9	C-23.9	C-23.4	C-23.9	C-23.9	C-23.4	C-23.9
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	
			WB	B-17.7	C-22.5	B-13.9	B-13.9	B-13.9	C-24.4	C-24.4	C-23.9	C-24.4	

#	Intersection	Traffic Control	Approach	Year 2040 Total without Front Street				Year 2040 Total without Front Street			
				Level of Service (Delay in Seconds)				Level of Service (Delay in Seconds)			
				AM	PM	SAT	AM	PM	SAT		
1	South Boulder Road & Main Street	Signal	EB	A-0.0	A-0.0	A-0.0	A-0.0	B-15.0	A-0.0	B-15.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
2	South Boulder Road & Front Street	N/S	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
3	South Boulder Road & Cannon Circle	N/S	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
4	SH 42 (County Road) & South Boulder Road	Signal	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
5	SH 42 (County Rd) & Cannon Circle	EB/SP	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
6	SH 42 (County Road) & Griffith Street	Signal	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
7	Griffith Street & Cannon Street	N/S	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
8	Griffith Street & Front Street	N/S	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
9	Griffith Street & Main Street	WB/SP	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
10	Harper Street & Front Street	None	EB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
11	SH 42 (County Rd) & Harper Street	EB/SP	EB	B-13.7	F-118.0	E-40.0	B-14.7	F-138.2	B-12.0	F-123.0	B-12.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0
			WB	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0	A-0.0

Recommendation: Coal Creek Village – Conditions

- The applicant will work with staff in the Final PUD process to redesign the proposed sidewalk and right-of-way improvements adjacent to South Boulder Road.
- The Final PUD shall comply with Colorado SB24-005, which prohibits local governments from permitting the installation of “nonfunctional turf,” as defined in the legislation.
- The improvements described in the traffic calming exhibit (Attachment 6), including the Front Street/Harper Street design concept, shall be incorporated into the Final PUD and Plat applications, subject to further staff review.
- The applicant shall work with staff and the property owner at 1110 E. South Boulder Road to modify the plans as necessary and ensure that vehicular access to the property from Cannon Circle is provided