

TRAFFIC IMPACT STUDY

For

**Perry Street Social
Castle Rock, Colorado**

August 2022

Revised:

September 2022

Prepared for:

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I. Introduction

Project Overview

This traffic impact study addresses the capacity, geometric, and control requirements associated with the development entitled Perry Street Social.

This traffic impact study has been revised to address Town review comments made to the previous Perry Street Social Traffic Impact Study, dated August 2022, regarding discrepancy of trip generation calculations and associated revisions throughout.

This proposed mixed-use development is understood to convert the existing downtown area into an entertainment district supporting a beer garden, games, and an outdoor events venue. The development is located on the northeast corner of 4th Street and Perry Street in Castle Rock, Colorado.

Study Area Boundaries

The study area to be examined in this analysis was coordinated with Town Staff and encompasses the Perry Street intersections with 3rd Street, 4th Street, and 5th Street, as well as the Wilcox Street intersections with 4th Street and 5th Street.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is currently occupied by various land uses including Castle Rock Bike & Ski, Jack Be Click, Mountain Man Nut & Fruit Company, The White Pavilion outdoor venue, and one single-family detached home. The development site is surrounded by a mix of commercial, retail, office, and residential land uses.

The proposed development is understood to entail the new construction of a tap house, the reuse of the outdoor pavilion for music and events year-round, and the conversion of the existing buildings into various uses including a deli/charcuterie with wine sales and a craft beer taproom with a full-service kitchen and rooftop seating.

Due to the nature of the existing roadway characteristics, access to the development is provided along the adjacent roadway network with available on-street parking and the existing alley bordering the east side of the development.

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2023. A site plan, as prepared by Engineering Entitlement Solutions, Inc., is shown on Figure 2. This plan is provided for illustrative purposes only.

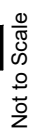
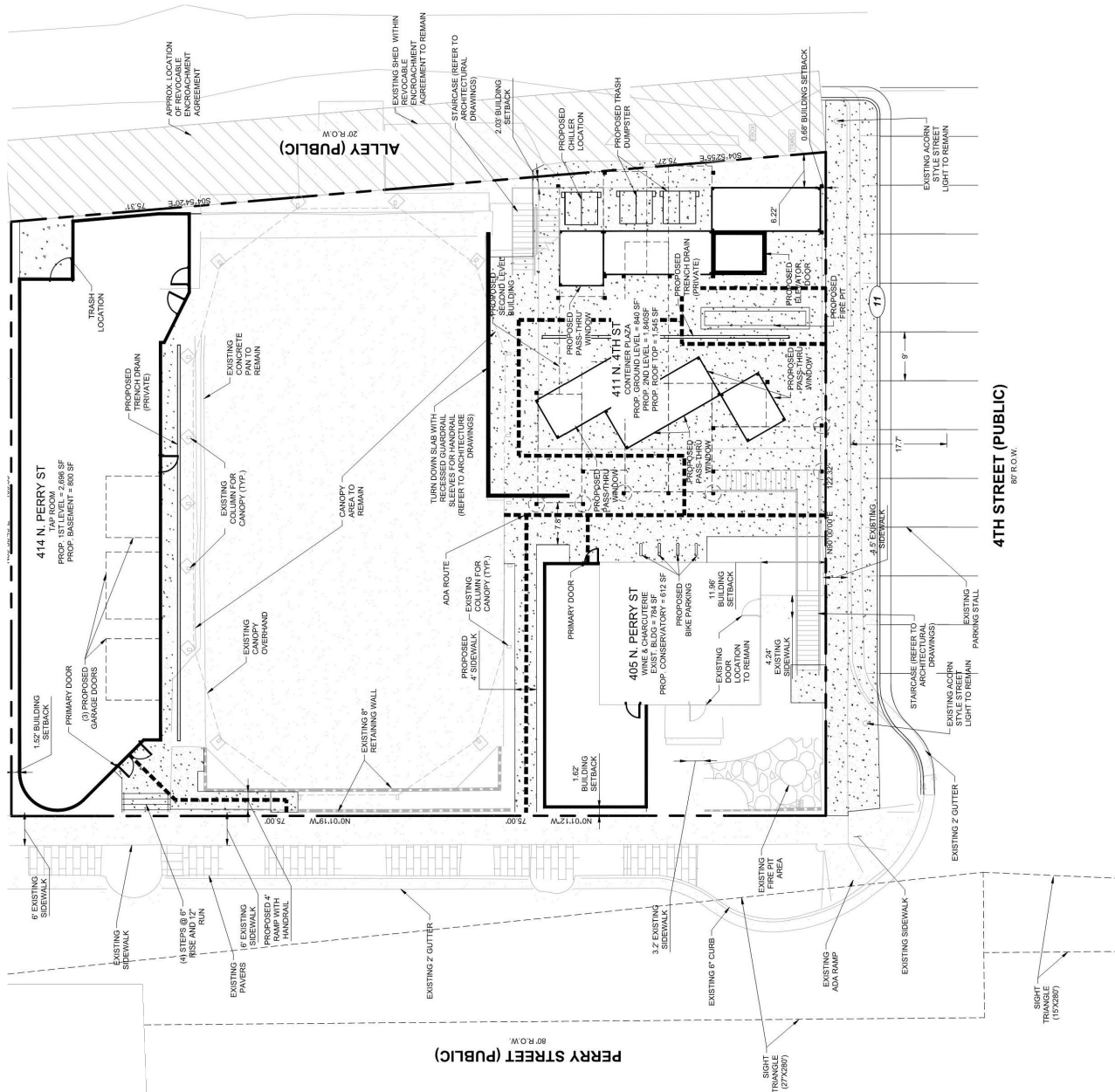


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Figure 1
SITE LOCATION



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Existing and Committed Surface Transportation Network

Within the study area, 5th Street is the primary roadway that will accommodate traffic to and from the proposed development. Secondary roadways include 4th Street, 3rd Street, Wilcox Street, and Perry Street. A brief description of each roadway is provided below:

5th Street is an east-west major arterial roadway having two to four through lanes (one to two lanes in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. 5th Street provides a posted speed limit of 25 MPH. 5th Street ends near Interstate 25 (I-25) and continues west as Park Street with a collector roadway classification.

4th Street is an east-west local roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. 4th Street provides designated on-street parking and a posted speed limit of 25 MPH. 4th Street currently does not provide connection across the Union Pacific Railroad track.

3rd Street is an east-west local roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. 3rd Street provides designated on-street parking and a posted speed limit of 25 MPH.

Wilcox Street is a north-south roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. North and south of 5th Street, Wilcox Street is classified as a major and minor arterial roadway, respectively. Wilcox Street provides designated on-street parking and a posted speed limit of 25 MPH.

Perry Street is a north-south minor arterial roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Perry Street provides designated on-street parking and a posted speed limit of 25 MPH.

The 5th Street intersections with Wilcox Street and Perry Street are signalized, and the 3rd Street intersection with Perry Street operates as a roundabout. All other study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more “STOP” signs.

No regional or specific improvements for the roadways described above are known to be planned or committed at this time. The study area roadways appear to be built to their ultimate cross-sections.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the Perry Street intersections of 3rd Street, 4th Street, and 5th Street, as well as the Wilcox Street intersections with 4th Street and 5th Street. Average daily (24-hour) traffic volumes were collected on Perry Street and on 4th Street. These counts are shown on Figure 3.

Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for the 5th Street intersections with Wilcox Street and Perry Street were obtained from Town Staff and used throughout this study to the best extent possible in order to remain consistent with existing signal coordination plans. Town signal timing information received is included for reference in Appendix A.

Multi-Modal Assessment

Within the study area, multi-modal networks exist that could have an effect on mode split and trip generation from the proposed development. These networks promote alternate modes of transportation and include, but may not be limited to, pedestrian, bicycle, and transit facilities.

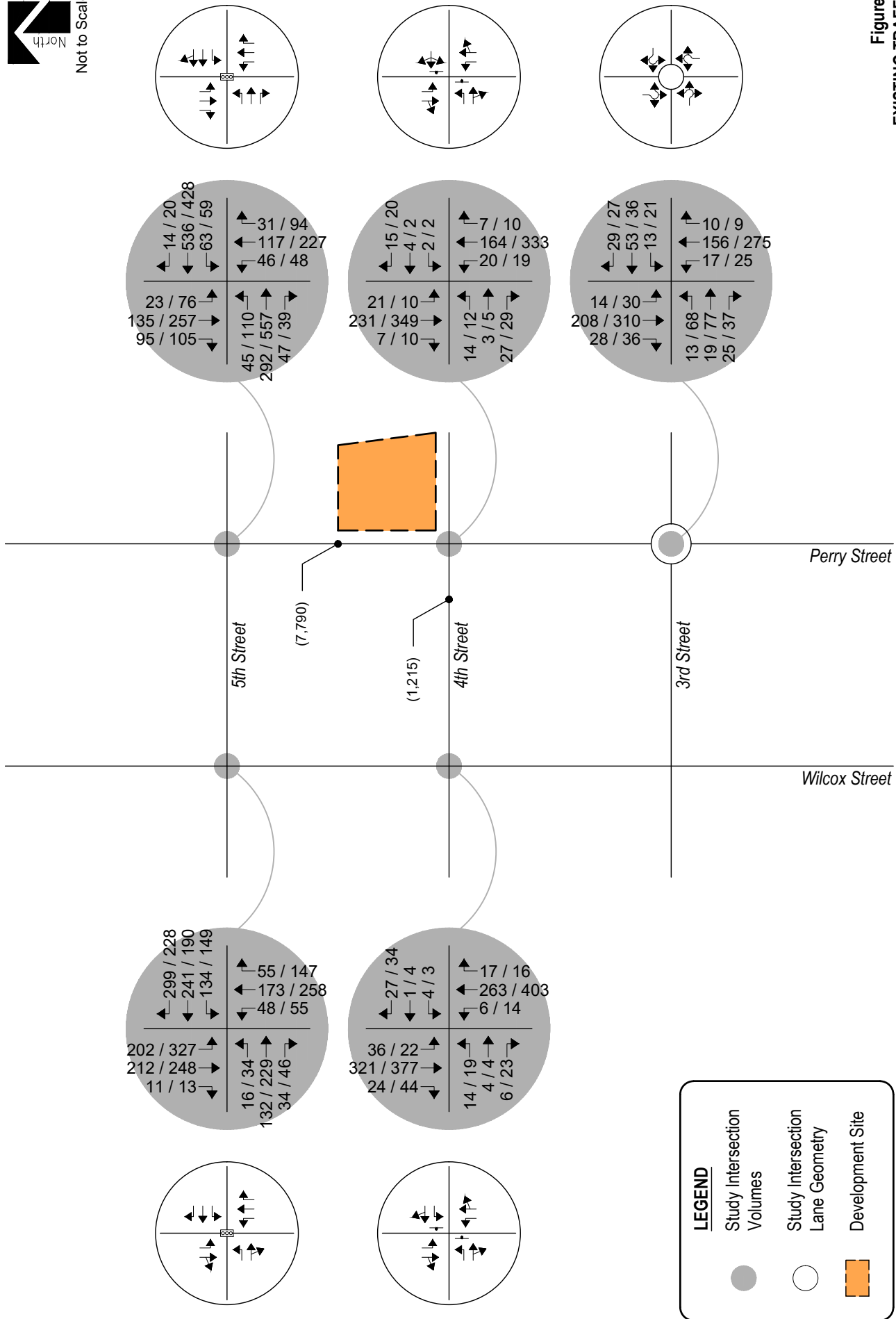
The existing development area already accommodates pedestrians and bicyclists with attached sidewalks, providing connection to the adjacent pedestrian network. Additionally, the site accommodates bicyclists with bike racks and a bicycle repair station.

Attached sidewalks with nearby pedestrian overpasses/underpasses also exist within the surrounding network allowing pedestrian access of the proposed development to the surrounding downtown area. Within a quarter of a mile, the regional East Plum Creek Trail is available, connecting the downtown district to the greater Castle Rock area, as well as the more localized public trail along Front Street, providing access north to Douglas County High School.

The Town also takes advantage of the Taxi Voucher Program, a taxi service specific to the Town of Castle Rock. The Denver Regional Council of Governments (DRCOG) also provides the Way To Go program, a regional ride-share service for carpooling to and from the Denver metropolitan area.



Not to Scale



LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

Figure 3
EXISTING TRAFFIC
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

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The Signalized, Unsignalized, and Roundabout Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM) by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement and based on the volume to capacity ratio and control delay for each approach.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
5th Street / Wilcox Street (Signalized)	B (17.2)	C (26.4)
Eastbound Left	B	C
Eastbound Through and Right	D	D
Westbound Left	B	C
Westbound Through	C	D
Westbound Right	A	B
Northbound Left	B	B
Northbound Through	C	C
Northbound Right	A	A
Southbound Left	B	B
Southbound Through and Right	B	C
5th Street / Perry Street (Signalized)	B (18.0)	C (25.1)
Eastbound Left	B	A
Eastbound Through	B	C
Eastbound Right	A	A
Westbound Left	A	B
Westbound Through and Right	B	B
Northbound Left	C	C
Northbound Through	D	D
Northbound Right	A	A
Southbound Left	C	C
Southbound Through	D	D
Southbound Right	A	A
4th Street / Wilcox Street (Stop-Controlled)		
Eastbound Left	C	C
Eastbound Through and Right	B	B
Westbound Left	C	C
Westbound Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
4th Street / Perry Street (Stop-Controlled)		
Eastbound Left	B	C
Eastbound Through and Right	A	B
Westbound Left, Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
3rd Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the signalized intersection of 5th Street with Wilcox Street has overall operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour.

The signalized intersection of 5th Street with Perry Street experiences overall operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour.

The stop-controlled intersection of 4th Street with Wilcox Street has turn movement operations at or better than LOS C during both the morning and afternoon peak traffic hours.

The stop-controlled intersection of 4th Street with Perry Street experiences turn movement operations at or better than LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

The roundabout intersection of 3rd Street with Perry Street has turn movement operations at LOS A during both the morning and afternoon peak traffic hours.

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2023 and 2041, a compounded annual growth rate was determined using traffic data provided by CDOT's traffic count database system (TCDS)¹, which anticipates average historical growth rates of less than one percent in the last eight years for the surrounding roadway network. Therefore, in order to provide for a conservative analysis, a growth rate of approximately two percent was applied to existing traffic volumes.

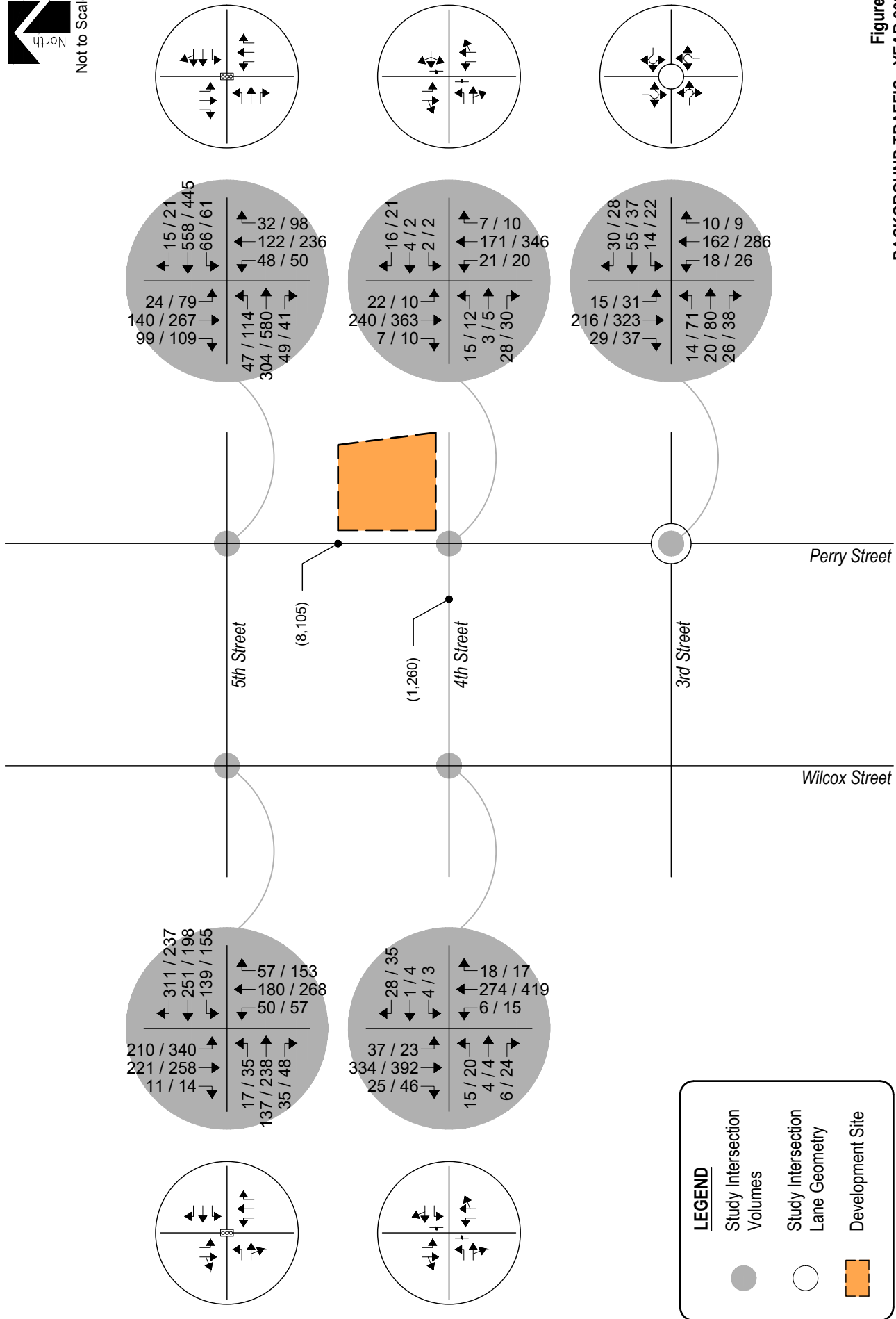
Pursuant to the non-committed area roadway improvements discussed in Section I, Year 2023 and Year 2041 background traffic conditions assume no roadway improvements to accommodate regional transportation demands. Year 2041 assumes existing signal timing parameters for the 5th Street intersections with Wilcox Street and Perry Street with optimized intersection splits in effort to better long-term intersection performance. This assumption provides for a conservative analysis.

Projected background traffic volumes and intersection geometry for Years 2023 and 2041 are shown on Figure 4 and Figure 5, respectively.

¹ Transportation Data Management System, MS2, 2021.



Not to Scale



LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

Figure 4
BACKGROUND TRAFFIC - YEAR 2023
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

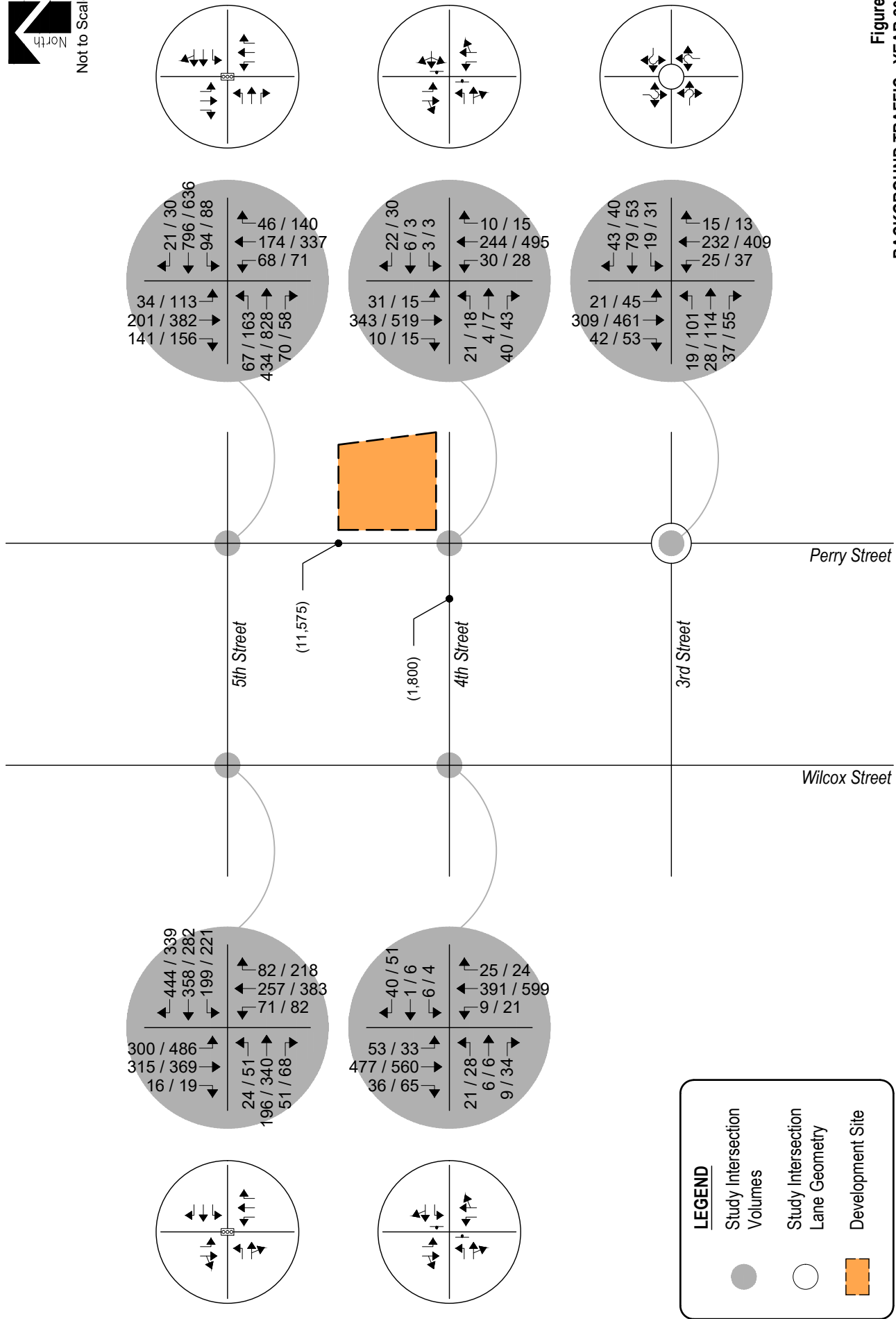
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- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

Figure 5
BACKGROUND TRAFFIC - YEAR 2041
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2023 are listed in Table 2. Year 2041 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Background Traffic Analysis Results – Year 2023

Year 2023 background traffic analysis indicates that the signalized intersection of 5th Street with Wilcox Street predicts overall operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour.

The signalized intersection of 5th Street with Perry Street experiences overall operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour.

The stop-controlled intersection of 4th Street with Wilcox Street has turn movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

The stop-controlled intersection of 4th Street with Perry Street experiences turn movement operations at or better than LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

The roundabout intersection of 3rd Street with Perry Street expects turn movement operations at LOS A during both the morning and afternoon peak traffic hours.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2023

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
5th Street / Wilcox Street (Signalized)	B (17.6)	C (27.1)
Eastbound Left	B	B
Eastbound Through and Right	D	D
Westbound Left	B	D
Westbound Through	C	C
Westbound Right	A	B
Northbound Left	B	B
Northbound Through	C	C
Northbound Right	A	A
Southbound Left	B	C
Southbound Through and Right	B	C
5th Street / Perry Street (Signalized)	B (18.3)	C (25.7)
Eastbound Left	B	A
Eastbound Through	B	C
Eastbound Right	A	A
Westbound Left	A	B
Westbound Through and Right	B	B
Northbound Left	C	C
Northbound Through	D	D
Northbound Right	A	A
Southbound Left	C	C
Southbound Through	D	D
Southbound Right	A	A
4th Street / Wilcox Street (Stop-Controlled)		
Eastbound Left	C	D
Eastbound Through and Right	B	B
Westbound Left	C	C
Westbound Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
4th Street / Perry Street (Stop-Controlled)		
Eastbound Left	B	C
Eastbound Through and Right	A	B
Westbound Left, Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
3rd Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2041

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
5th Street / Wilcox Street (Signalized)	C (22.7)	E (57.0)
Eastbound Left	B	C
Eastbound Through and Right	D	F
Westbound Left	C	E
Westbound Through	C	C
Westbound Right	A	B
Northbound Left	B	B
Northbound Through	C	E
Northbound Right	A	A
Southbound Left	B	F
Southbound Through and Right	C	C
5th Street / Perry Street (Signalized)	C (22.0)	D (46.6)
Eastbound Left	B	A
Eastbound Through	C	E
Eastbound Right	A	A
Westbound Left	A	C
Westbound Through and Right	B	B
Northbound Left	C	D
Northbound Through	D	E
Northbound Right	A	A
Southbound Left	C	D
Southbound Through	D	E
Southbound Right	A	A
4th Street / Wilcox Street (Stop-Controlled)		
Eastbound Left	E	F
Eastbound Through and Right	C	C
Westbound Left	D	F
Westbound Through and Right	B	C
Northbound Left	A	A
Southbound Left	A	A
4th Street / Perry Street (Stop-Controlled)		
Eastbound Left	C	E
Eastbound Through and Right	B	B
Westbound Left, Through and Right	B	C
Northbound Left	A	A
Southbound Left	A	A
3rd Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	B
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Background Traffic Analysis Results – Year 2041

By Year 2041 and without the proposed development, the signalized intersection of 5th Street with Wilcox Street anticipates overall operations at LOS C during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. The LOS E operation anticipated during the afternoon peak traffic period is attributed to westbound and southbound left turning movements as well as through movements in the eastbound and northbound directions. To mitigate the anticipated LOS E operation, it is recommended that Town Staff implement a Transportation Demand Management plan, as described within the Town of Castle Rock's Downtown Mobility Master Plan (DMMP)², promoting alternate methods of transportation. These alternate transportation methods include, but are not limited to, walking, biking, and public transportation. Another potential mitigation may include improving alternate routes in the downtown area that would benefit I-25 commuters.

The signalized intersection of 5th Street with Perry Street projects overall operations at LOS C during the morning peak traffic hour and LOS D during the afternoon peak traffic hour.

The stop-controlled intersection of 4th Street with Wilcox Street experiences turn movement operations at or better than LOS D during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions would include the eastbound left turning movement during both peak traffic hours and the westbound left turning movement during the afternoon peak traffic hour, which operate at LOS E and LOS F during their respective peak traffic hours. The LOS E and LOS F operations are attributed to the through traffic volume along Wilcox Street and the stop-controlled nature of the intersection.

The stop-controlled intersection of 4th Street with Perry Street predicts turn movement operations at or better than LOS C during both the morning and afternoon peak traffic hours. The exception would include the eastbound left turning movement which operates at LOS E during the afternoon peak traffic hour. The LOS E operation is attributed to the through traffic volume along Perry Street and the stop-controlled nature of the intersection.

The roundabout intersection of 3rd Street with Perry Street expects turn movement operations at LOS A during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two Way Stop Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. Upstream signal controls along Wilcox Street and Perry Street will tend to create additional gaps in the traffic stream for turning movements at 4th Street and will most likely provide mitigation to the LOS E and F operations projected during both peak traffic hours.

² Downtown Mobility Master Plan, Town of Castle Rock, July 2019.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. ADT volumes were derived from standard relationships of ADT volumes versus peak hour volumes. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use codes 210 (Single-Family Detached Housing), 465 (Ice Skating Rink), 814 (Variety Store), 861 (Sporting Goods Superstore), 926 (Food Cart Pod), 932 (High-Turnover (Sit-Down) Restaurant), and 970 (Wine Tasting Room), and 971 (Brewery Tap Room) were used for estimating trip generation because of their best fit to the existing and proposed land use descriptions. Additional parameters were applied in order to better refine trip generation data that best fits the land use description, including the geographical setting of the overall area.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24	AM PEAK HOUR			PM PEAK HOUR		
			HOURLY	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
465	Ice Skating Rink	KSF	*	0.06	0.11	0.17	0.73	0.60	1.33
814	Variety Store	KSF	63.66	1.67	1.37	3.04	3.42	3.28	6.70
861	Sporting Goods Superstore	KSF	23.78	0.37	0.11	0.48	0.98	1.16	2.14
926	Food Cart Pod	FC	*	*	*	*	3.08	3.08	6.16
932	High-Turnover (Sit-Down) Restaurant	KSF	107.20	5.26	4.31	9.57	5.52	3.53	9.05
970	Wine Tasting Room	KSF	45.96	1.45	0.62	2.07	3.66	3.66	7.31
971	Brewery Tap Room	KSF	61.69	0.60	0.08	0.68	5.80	4.03	9.83

Key: DU = Dwelling Units. FC = Food Carts. KSF = Thousand Square Feet Gross Floor Area.

* = ITE does not report significant AM peak hour generation due to the nature of the business (ie, operating hours typically open after AM peak).

Note: All data and calculations above are subject to being rounded to nearest value.

Table 5 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

Table 5 – Trip Generation Summary

ITE CODELAND USESIZE			TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Site Development - Existing</u>									
210	Single-Family Detached Housing	1 DU	9	0	1	1	1	0	1
465	Ice Skating Rink	5.6 KSF	74	0	1	1	4	3	7
814	Variety Store	1.0 KSF	63	2	1	3	3	3	7
861	Sporting Goods Superstore	1.9 KSF	46	1	0	1	2	2	4
Existing Total:			192	3	3	6	10	9	19
<u>Site Development - Proposed</u>									
465	Ice Skating Rink	5.6 KSF	74	0	1	1	4	3	7
926	Food Cart Pod	1 FC	62	*	*	*	3	3	6
932	High-Turnover (Sit-Down) Restaurant	0.8 KSF	84	4	3	8	4	3	7
970	Wine Tasting Room	0.6 KSF	28	1	0	1	2	2	4
971	Brewery Tap Room	7.7 KSF	476	5	1	5	45	31	76
Proposed Total:			724	10	5	15	58	43	101
Difference Total:			532	7	2	9	49	33	82

Key: DU = Dwelling Units. FC = Food Carts. KSF = Thousand Square Feet Gross Floor Area.

* = ITE does not report significant AM peak hour generation due to the nature of the business (ie, operating hours typically open after AM peak).

Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 724 daily trips with 15 of those occurring during the morning peak hour and 101 during the afternoon peak hour. Compared to the existing land uses, this represents a potential increase in site traffic generation of approximately 532 daily trips with 9 of those occurring during the morning peak hour and 82 during the afternoon peak hour.

Adjustments to Trip Generation Rates

A development of this type is likely to attract trips from within area land uses as well as mode share trips from the adjacent roadway system. ITE defines a mode share as the percentage of trips using alternate methods of travel (i.e., walk or bike).

Mode share and alternate methods of transportation are especially common to downtown infill development areas given the compact urban development characteristics of the area and the quality and connectivity of the surrounding roadway network.

Although the Town's downtown area generates many mode share trips, with consideration of the variety and uniqueness of land uses being proposed with the lack of parking provided on-site, an exact vehicle trip reduction cannot be determined at this time. Therefore, in reference to traffic data provided by ITE's Trip Generation Handbook, 3rd Edition, mode share and internal capture reductions between 10 to 32 percent were applied to the development's site-generated trips. These reductions are believed to be conservative.

Table 6 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out with reductions applied due to mode share and internal capture trips.

Table 6 – Trip Generation Summary with Mode Share & Internal Capture Trip Reductions

ITE CODE LAND USE SIZE			TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Site Development - Existing</u>									
210	Single-Family Detached Housing	1 DU	8	0	0	1	1	0	1
465	Ice Skating Rink	5.6 KSF	67	0	1	1	4	3	7
814	Variety Store	1.0 KSF	57	1	1	3	3	3	6
861	Sporting Goods Superstore	1.9 KSF	41	1	0	1	2	2	4
Mode Share:			10%	10%	10%	10%	10%	10%	10%
Existing Total:			173	3	2	5	9	8	17
<u>Site Development - Proposed</u>									
465	Ice Skating Rink	5.6 KSF	53	0	0	1	2	2	5
926	Food Cart Pod	1 FC	44	*	*	*	2	2	4
932	High-Turnover (Sit-Down) Restaurant	0.8 KSF	60	3	3	6	3	2	4
970	Wine Tasting Room	0.6 KSF	20	1	0	1	1	1	3
971	Brewery Tap Room	7.7 KSF	339	4	1	4	27	19	46
Mode Share:			21%	10%	10%	10%	32%	32%	32%
Internal Capture:			10%	10%	10%	10%	10%	10%	10%
Proposed Total:			515	8	4	12	36	26	62
Difference Total:			342	5	2	7	27	18	45

Key: DU = Dwelling Units. FC = Food Carts. KSF = Thousand Square Feet Gross Floor Area.

* = ITE does not report significant AM peak hour generation due to the nature of the business (ie, operating hours typically open after AM peak).

Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out and with consideration of applicable trip reductions, Table 6 illustrates that the proposed development has the potential to generate approximately 515 new daily trips with 12 of those occurring during the morning peak hour and 62 during the afternoon peak hour.

It is important to note that the majority of vehicle trips to/from the proposed development are expected to park off-site and walk to the development area, providing more of a trip reduction than that shown in Table 6. As such, site-generated trips shown in Table 6 are considered to continue providing for a conservative analysis.

Trip Distribution

The overall directional distribution of site-generated traffic was determined based on the location of development site within the Town, proposed and existing area land uses, allowed turning movements, available roadway network, and in reference to historical traffic count data provided by DRCOG's Regional Traffic Count Program.

Overall trip distribution patterns for the development are shown on Figure 6.

Trip Assignment

Trip assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 6.



Not to Scale

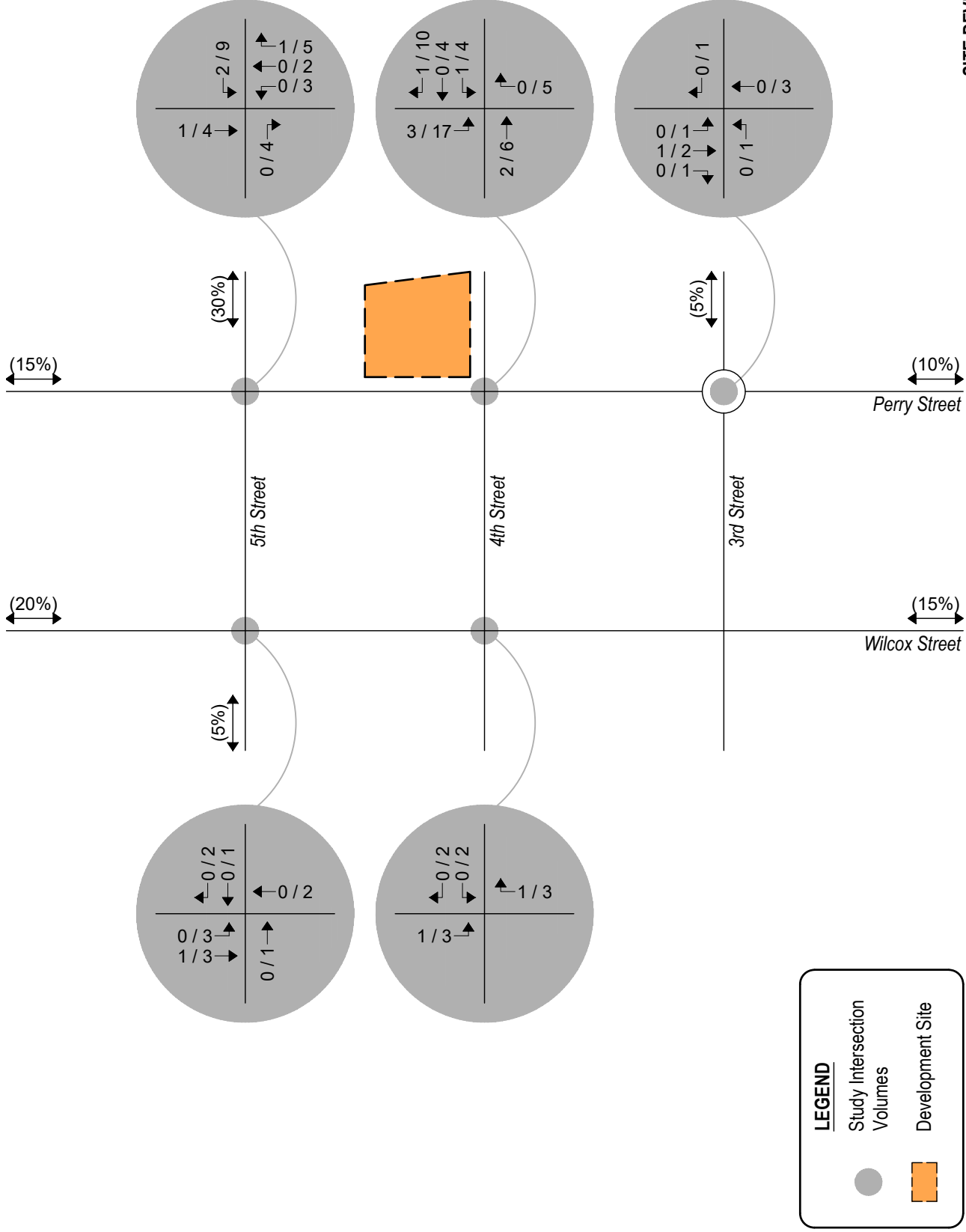


Figure 6
SITE DEVELOPMENT DISTRIBUTION
(%) : Overall
SITE-GENERATED ASSIGNMENT
AM / PM Peak Hour

PERRY STREET SOCIAL
Traffic Impact Study



SM ROCHA, LLC

Traffic and Transportation Consultants

September 2022

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V. Future Traffic Conditions With Proposed Developments

Site-generated traffic was added to background traffic projections for Years 2023 and 2041 to develop total traffic projections. For analysis purposes, it was assumed that development construction would be completed by end of Year 2023.

Pursuant to area roadway improvement discussions provided in Section III, Year 2023 and Year 2041 total traffic conditions assume no roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

Projected Year 2023 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2041.



Not to Scale

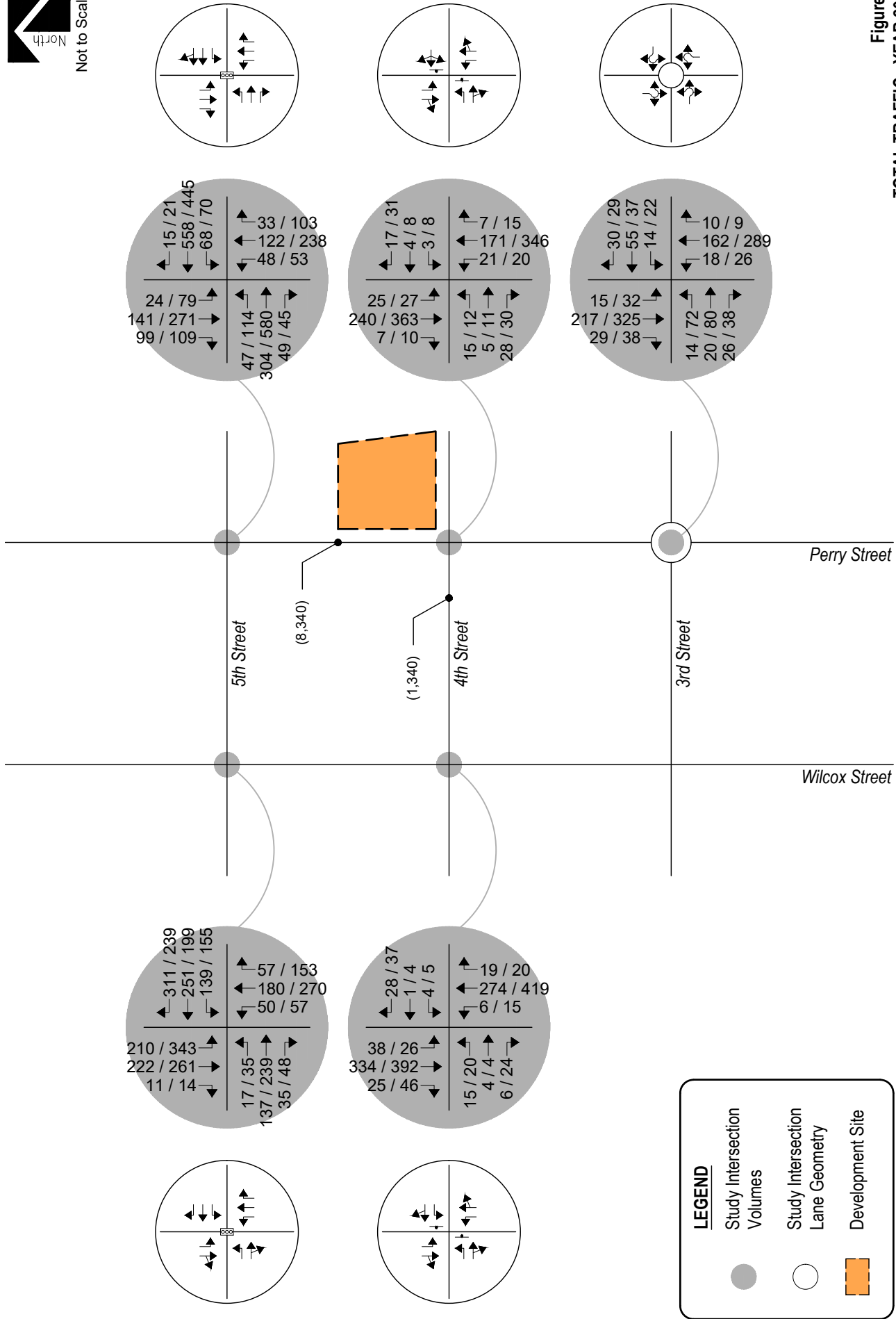
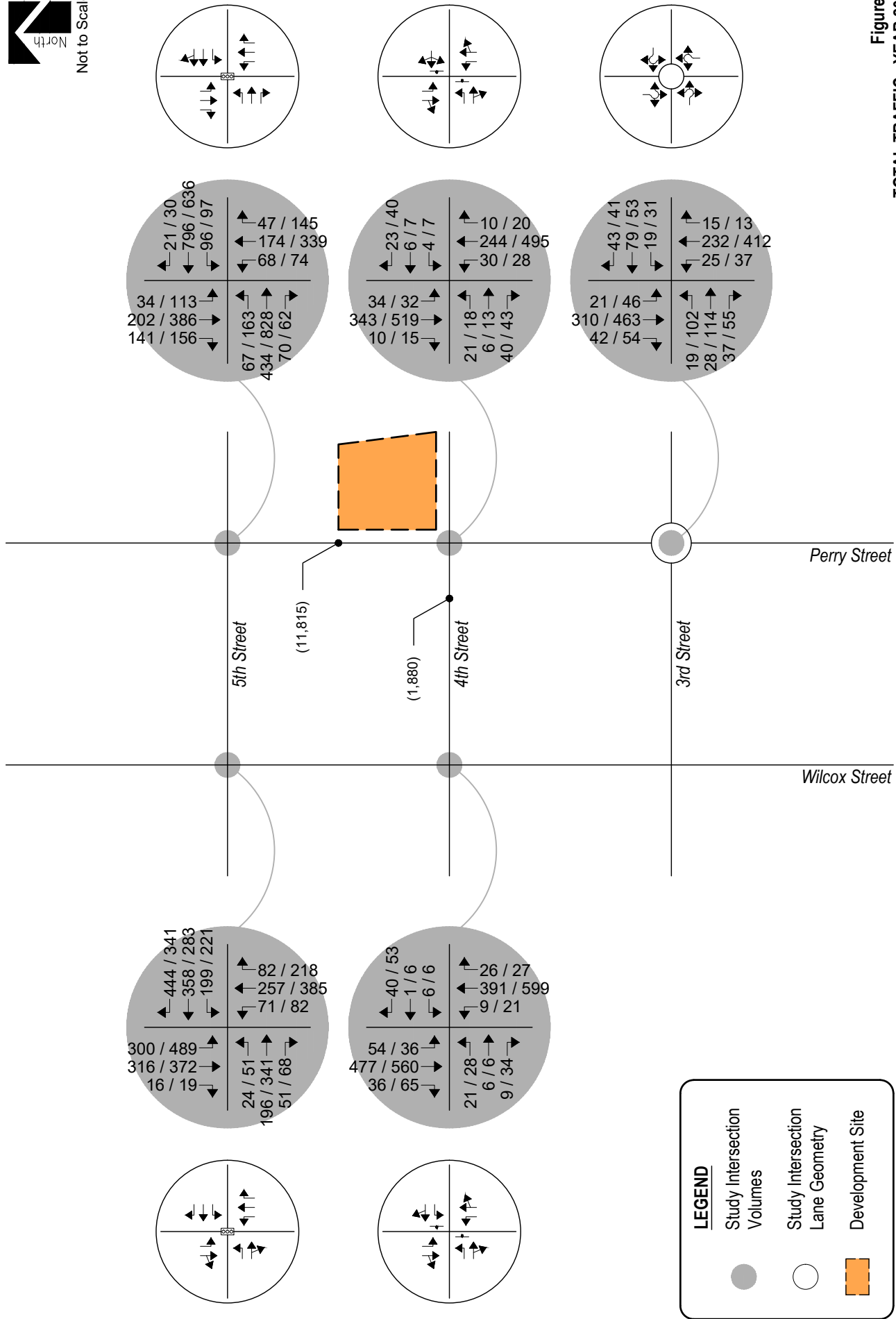


Figure 7
TOTAL TRAFFIC - YEAR 2023
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic





Not to Scale



LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

Figure 8
TOTAL TRAFFIC - YEAR 2041
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

PERRY STREET SOCIAL
Traffic Impact Study



SM ROCHA, LLC
Traffic and Transportation Consultants

VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the Highway Capacity Manual (HCM) and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Peak Hour Intersection Levels of Service

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Years 2023 and 2041 are summarized in Table 7 and Table 8, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2023

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
5th Street / Wilcox Street (Signalized)	B (17.6)	C (27.2)
Eastbound Left	B	B
Eastbound Through and Right	D	D
Westbound Left	B	D
Westbound Through	C	C
Westbound Right	A	B
Northbound Left	B	B
Northbound Through	C	C
Northbound Right	A	A
Southbound Left	B	C
Southbound Through and Right	B	C
5th Street / Perry Street (Signalized)	B (18.3)	C (25.8)
Eastbound Left	B	A
Eastbound Through	B	C
Eastbound Right	A	A
Westbound Left	A	B
Westbound Through and Right	B	B
Northbound Left	C	C
Northbound Through	D	D
Northbound Right	A	A
Southbound Left	C	C
Southbound Through	D	D
Southbound Right	A	A
4th Street / Wilcox Street (Stop-Controlled)		
Eastbound Left	C	D
Eastbound Through and Right	B	B
Westbound Left	C	C
Westbound Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
4th Street / Perry Street (Stop-Controlled)		
Eastbound Left	B	C
Eastbound Through and Right	A	B
Westbound Left, Through and Right	B	B
Northbound Left	A	A
Southbound Left	A	A
3rd Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)

Stop-Controlled Intersection: Level of Service

Roundabout Intersection: Level of Service

Table 8 – Intersection Capacity Analysis Summary – Total Traffic – Year 2041

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
5th Street / Wilcox Street (Signalized)	C (22.7)	E (57.9)
Eastbound Left	B	C
Eastbound Through and Right	D	F
Westbound Left	C	E
Westbound Through	C	C
Westbound Right	A	B
Northbound Left	B	B
Northbound Through	C	E
Northbound Right	A	A
Southbound Left	B	F
Southbound Through and Right	C	C
5th Street / Perry Street (Signalized)	C (22.0)	D (47.1)
Eastbound Left	B	A
Eastbound Through	C	E
Eastbound Right	A	A
Westbound Left	A	D
Westbound Through and Right	B	B
Northbound Left	C	D
Northbound Through	D	E
Northbound Right	A	A
Southbound Left	C	E
Southbound Through	D	E
Southbound Right	A	A
4th Street / Wilcox Street (Stop-Controlled)		
Eastbound Left	E	F
Eastbound Through and Right	C	C
Westbound Left	D	F
Westbound Through and Right	B	C
Northbound Left	A	A
Southbound Left	A	A
4th Street / Perry Street (Stop-Controlled)		
Eastbound Left	C	F
Eastbound Through and Right	B	C
Westbound Left, Through and Right	B	C
Northbound Left	A	A
Southbound Left	A	A
3rd Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	B
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 8 illustrates how, by Year 2041 and upon development build-out, the signalized intersection of 5th Street with Wilcox Street anticipates overall operations at LOS C during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. Compared to the background traffic analysis, the traffic generated by the proposed development is not expected to significantly change the operations of the study intersection. The LOS E operation anticipated during the afternoon peak traffic period is still attributed to westbound and southbound left turning movements as well as through movements in the eastbound and northbound directions. To mitigate the anticipated LOS E operation, it is recommended that Town Staff implement a Transportation Demand Management plan, as described within Section 7.3.10 of the Town of Castle Rock Transportation Design Criteria Manual³ and the Town of Castle Rock's DMMP, promoting alternate methods of transportation. These alternate transportation methods include, but are not limited to, walking, biking, and public transportation. Another potential mitigation may include improving alternate routes in the downtown area that would benefit I-25 commuters.

The signalized intersection of 5th Street with Perry Street projects overall operations at LOS C during the morning peak traffic hour and LOS D during the afternoon peak traffic hour.

The stop-controlled intersection of 4th Street with Wilcox Street experiences turn movement operations at or better than LOS D during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions would include the eastbound left turning movement during both peak traffic hours, and the westbound left turning movement during the afternoon peak traffic hour. The LOS E and LOS F operations are attributed to the through traffic volume along Wilcox Street and the stop-controlled nature of the intersection.

The stop-controlled intersection of 4th Street with Perry Street predicts turn movement operations at or better than LOS C during both the morning and afternoon peak traffic hours. The exception includes the eastbound left turning movement which operates at LOS F during the afternoon peak traffic hour. The LOS F operation is attributed to the through traffic volume along Perry Street and the stop-controlled nature of the intersection.

The roundabout intersection of 3rd Street with Perry Street expects turn movement operations at LOS A during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two Way Stop Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. Upstream signal controls along Wilcox Street and Perry Street will tend to create additional gaps in the traffic stream for turning movements at 4th Street and will most likely provide mitigation to the LOS E and F operations projected during both peak traffic hours.

These intersection operations are similar to background conditions.

³ Town of Castle Rock Transportation Design Criteria Manual, Town of Castle Rock, December 2018.

Multi-Modal Assessment

Due to location within the downtown area, an assessment to pedestrian connectivity was evaluated.

The proposed development would accommodate pedestrians and bicyclists by maintaining the existing pedestrian and bicycle facilities that already exist.

With the assumption that the conceptual site plan for the proposed development was designed per the Town's Standards and Specifications, and pursuant to the Federal Highway Administration's (FHWA) Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations⁴, traffic calming and pedestrian crossing treatments are not applicable, and traffic calming is not expected to be needed for the proposed conditions.

⁴ Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations, Federal Highway Administration, July 2018.

VII. Additional Analysis

Per Town review comments, roundabout-control was investigated for the 4th Street intersections of Wilcox Street and Perry Street.

Peak Hour Intersection Levels of Service

As with previous analysis performed, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for the 4th Street intersections, with applied roundabout-control conditions for Year 2041, are summarized in Table 9.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets for this additional analysis are provided in Appendix D.

Table 9 – Additional Intersection Capacity Analysis Summary – Total Traffic – Year 2041

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
4 th Street / Wilcox Street (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A
4 th Street / Perry Street (Roundabout)		
Eastbound Left, Through and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left, Through and Right	A	A
Southbound Left, Through and Right	A	A

Key: Roundabout Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out – Additional Analysis

Table 9 illustrates how, by Year 2041, upon development build-out, and with consideration of roundabout-controlled conditions, the intersection of 4th Street and Wilcox Street projects turning movement operations at LOS A during either peak traffic hour.

Under roundabout-controlled conditions, the 4th Street and Perry Street intersection anticipates turning movement operations at LOS A during both the morning and afternoon peak traffic hours.

VIII. Conclusion

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Perry Street Social. This proposed mixed-use development is understood to convert the existing downtown area into an entertainment district supporting a beer garden, games, and an outdoor events venue. The development is located on the northeast corner of 4th Street and Perry Street in Castle Rock, Colorado.

The study area examined in this analysis was coordinated with Town Staff and encompassed the Perry Street intersections with 3rd Street, 4th Street, and 5th Street, as well as the Wilcox Street intersections with 4th Street and 5th Street.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2023 and Year 2041 background traffic conditions, and Year 2023 and Year 2041 total traffic conditions.

Analysis of existing traffic conditions indicates that the signalized study intersections have operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour. All stop-controlled and roundabout-controlled intersections within the study area have turning movements at or better than LOS C during both the morning and afternoon peak traffic hours.

Without the proposed development, Year 2023 background operational analysis shows that both signalized intersections of 5th Street have overall operations at LOS B during the morning peak traffic hour and LOS C during the afternoon peak traffic hour. All stop-controlled and roundabout-controlled intersections experience turning movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

By Year 2041 and without the proposed development, the signalized intersection of 5th Street with Wilcox Street anticipates overall operations at LOS C during the morning peak traffic hour and LOS E during the afternoon peak traffic hour. The LOS E operation anticipated during the afternoon peak traffic period is attributed to westbound and southbound left turning movements as well as through movements in the eastbound and northbound directions. The signalized intersection of 5th Street with Perry Street projects overall operations at LOS C during the morning peak traffic hour and LOS D during the afternoon peak traffic hour. The stop-controlled intersection of 4th Street with Wilcox Street experiences turn movement operations at or better than LOS D during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the eastbound left turning movement during both peak traffic hours and the westbound left turning movement during the afternoon peak traffic hour, which operate at LOS E and LOS F during their respective peak traffic hours. The LOS E and LOS F operations are attributed to the through traffic volume along Wilcox Street and the stop-controlled nature of the intersection. The stop-controlled intersection of 4th Street with Perry Street predicts turn movement operations at or better than LOS C during both the morning and afternoon peak traffic hours. The exception would include the eastbound left turning movement which operates at LOS E during the afternoon peak traffic hour. The LOS E operation is attributed to the through traffic volume along Perry Street and the stop-controlled nature of the intersection. The roundabout intersection of 3rd Street with Perry Street expects turn movement operations at LOS A during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two Way Stop Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. Upstream signal controls along Wilcox Street and Perry Street will tend to create additional gaps in the traffic stream for turning movements at 4th Street and will most likely provide mitigation to the LOS E and F operations projected during both peak traffic hours.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2041 background traffic conditions.

APPENDIX A

**Traffic Count Data
Signal Timing Information**



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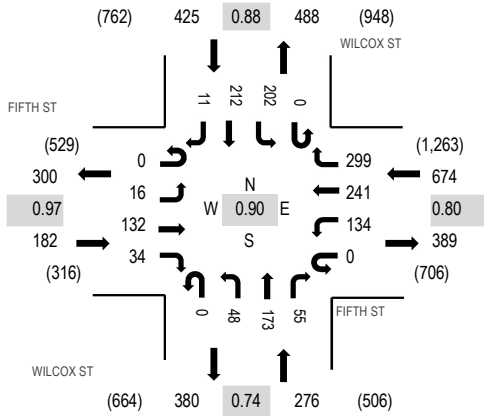
Location: 1 WILCOX ST & FIFTH ST AM

Date: Wednesday, July 28, 2021

Peak Hour: 07:45 AM - 08:45 AM

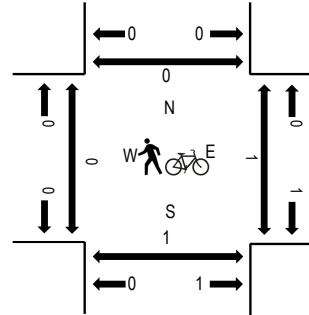
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				WILCOX ST Northbound				WILCOX ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	14	4	0	15	48	90	0	8	28	7	0	34	34	2	285	1,346	0	0	0	0
7:15 AM	0	3	22	6	0	20	41	74	0	10	17	11	0	35	32	3	274	1,437	0	1	0	0
7:30 AM	0	2	27	9	0	30	46	94	0	7	50	17	0	42	31	0	355	1,513	0	1	0	0
7:45 AM	0	3	32	6	0	36	94	84	0	13	38	14	0	56	54	2	432	1,557	0	0	0	0
8:00 AM	0	4	31	11	0	35	52	78	0	13	42	8	0	51	49	2	376	1,501	0	0	0	0
8:15 AM	0	4	34	10	0	27	44	66	0	6	34	12	0	51	57	5	350		0	0	1	0
8:30 AM	0	5	35	7	0	36	51	71	0	16	59	21	0	44	52	2	399		0	0	0	0
8:45 AM	0	7	32	7	0	31	44	56	0	14	38	23	0	53	65	6	376		0	0	0	0
Count Total	0	29	227	60	0	230	420	613	0	87	306	113	0	366	374	22	2,847		0	2	1	0
Peak Hour	0	16	132	34	0	134	241	299	0	48	173	55	0	202	212	11	1,557		0	0	1	0



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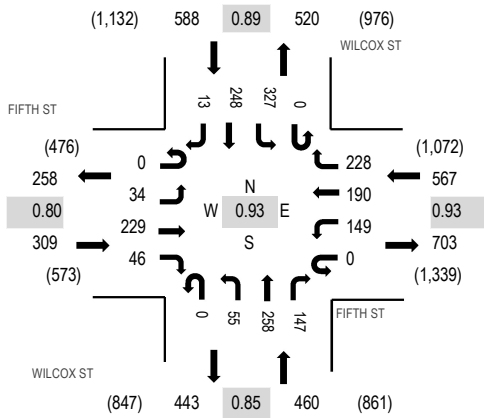
Location: 1 WILCOX ST & FIFTH ST PM

Date: Wednesday, July 28, 2021

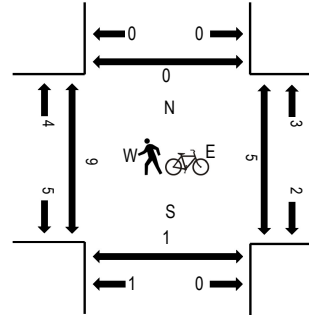
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				WILCOX ST Northbound				WILCOX ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	8	51	13	0	28	50	52	0	8	73	41	0	81	61	1	467	1,839	0	1	0	0
4:15 PM	0	7	39	13	0	26	42	52	0	9	57	35	0	76	55	1	412	1,892	3	1	0	0
4:30 PM	0	9	54	14	0	46	48	56	0	11	53	33	0	84	76	7	491	1,924	2	0	0	0
4:45 PM	0	7	55	13	0	36	50	57	0	13	62	35	0	86	52	3	469	1,858	3	3	0	0
5:00 PM	0	14	71	12	0	33	46	74	0	14	61	42	0	87	64	2	520	1,799	1	0	0	0
5:15 PM	0	4	49	7	0	34	46	41	0	17	82	37	0	70	56	1	444		3	1	1	0
5:30 PM	0	5	51	8	0	42	32	55	0	11	45	35	0	82	59	0	425		3	2	3	2
5:45 PM	0	6	52	11	0	32	43	51	0	15	45	27	0	66	56	6	410		3	0	0	0
Count Total	0	60	422	91	0	277	357	438	0	98	478	285	0	632	479	21	3,638		18	8	4	2
Peak Hour	0	34	229	46	0	149	190	228	0	55	258	147	0	327	248	13	1,924		9	4	1	0



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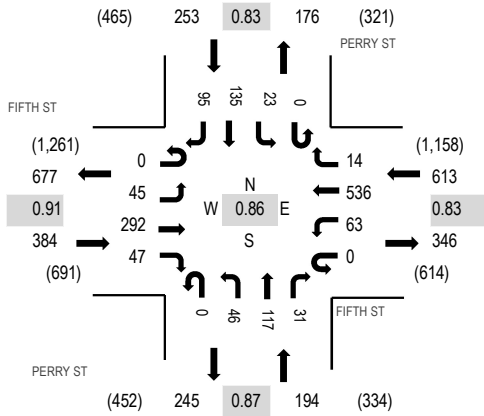
Location: 2 PERRY ST & FIFTH ST AM

Date: Wednesday, July 28, 2021

Peak Hour: 07:45 AM - 08:45 AM

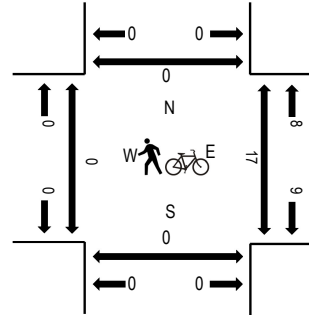
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				PERRY ST Northbound				PERRY ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	4	45	4	0	6	124	3	0	8	14	2	0	1	30	20	261	1,278	0	0	0	0
7:15 AM	0	11	52	7	0	9	113	4	0	11	21	3	0	3	28	16	278	1,364	0	0	0	0
7:30 AM	0	12	63	8	0	12	147	2	0	5	17	7	0	8	25	15	321	1,404	0	0	1	0
7:45 AM	0	10	76	10	0	17	171	2	0	16	29	11	0	8	34	34	418	1,444	0	2	0	0
8:00 AM	0	7	73	13	0	15	127	6	0	10	23	11	0	3	35	24	347	1,370	0	0	0	0
8:15 AM	0	9	62	17	0	19	109	2	0	9	33	4	0	4	35	15	318		0	8	0	0
8:30 AM	0	19	81	7	0	12	129	4	0	11	32	5	0	8	31	22	361		0	6	0	0
8:45 AM	0	21	69	11	0	19	102	4	0	10	32	10	0	5	48	13	344		0	3	0	0
Count Total	0	93	521	77	0	109	1,022	27	0	80	201	53	0	40	266	159	2,648		0	19	1	0
Peak Hour	0	45	292	47	0	63	536	14	0	46	117	31	0	23	135	95	1,444		0	16	0	0



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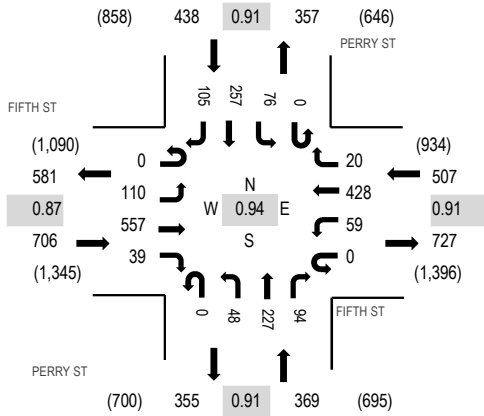
Location: 2 PERRY ST & FIFTH ST PM

Date: Wednesday, July 28, 2021

Peak Hour: 04:30 PM - 05:30 PM

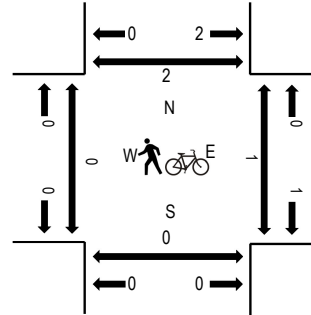
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FIFTH ST Eastbound				FIFTH ST Westbound				PERRY ST Northbound				PERRY ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	26	138	11	0	15	82	5	0	21	43	27	0	20	66	28	482	1,952	0	2	2	0
4:15 PM	0	18	125	12	0	21	89	3	0	12	48	23	0	19	62	18	450	2,007	1	0	1	0
4:30 PM	0	22	137	10	0	15	118	7	0	10	60	31	0	20	71	20	521	2,020	0	0	0	0
4:45 PM	0	24	135	15	0	13	104	4	0	11	50	20	0	20	68	35	499	1,941	0	0	0	0
5:00 PM	0	37	159	7	0	14	105	4	0	15	66	20	0	23	61	26	537	1,880	0	1	0	0
5:15 PM	0	27	126	7	0	17	101	5	0	12	51	23	0	13	57	24	463		0	0	0	0
5:30 PM	0	22	137	9	0	7	78	4	0	17	54	17	0	18	51	28	442		0	0	1	0
5:45 PM	0	21	114	6	0	18	98	7	0	12	38	14	0	17	67	26	438		0	0	0	0
Count Total	0	197	1,071	77	0	120	775	39	0	110	410	175	0	150	503	205	3,832		1	3	4	0
Peak Hour	0	110	557	39	0	59	428	20	0	48	227	94	0	76	257	105	2,020		0	1	0	0



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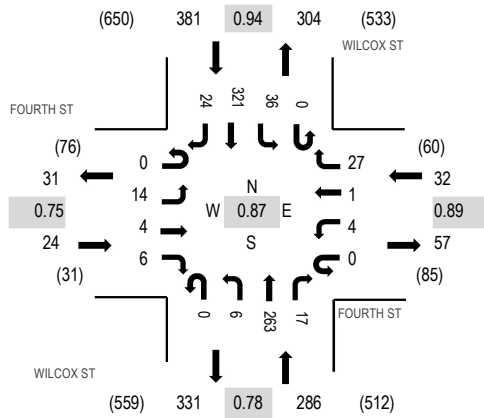
Location: 3 WILCOX ST & FOURTH ST AM

Date: Wednesday, July 28, 2021

Peak Hour: 08:00 AM - 09:00 AM

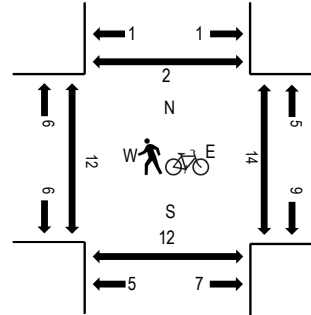
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FOURTH ST Eastbound				FOURTH ST Westbound				WILCOX ST Northbound				WILCOX ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	1	0	0	0	9	0	2	40	2	0	2	48	3	107	530	1	2	0	0
7:15 AM	0	1	1	1	0	0	0	3	0	5	34	1	0	3	52	0	101	587	2	0	1	1
7:30 AM	0	1	0	0	0	0	2	7	0	5	71	2	0	5	61	4	158	643	0	4	2	1
7:45 AM	0	1	0	1	0	0	1	6	0	4	56	4	0	8	64	19	164	680	3	0	3	0
8:00 AM	0	3	1	0	0	0	0	6	0	1	56	4	0	8	78	7	164	723	1	1	5	0
8:15 AM	0	3	2	1	0	1	0	8	0	0	45	5	0	10	74	8	157		4	4	0	0
8:30 AM	0	6	1	1	0	1	0	8	0	2	81	0	0	10	82	3	195		2	2	4	0
8:45 AM	0	2	0	4	0	2	1	5	0	3	81	8	0	8	87	6	207		5	7	3	2
Count Total	0	17	5	9	0	4	4	52	0	22	464	26	0	54	546	50	1,253		18	20	18	4
Peak Hour	0	14	4	6	0	4	1	27	0	6	263	17	0	36	321	24	723		12	14	12	2



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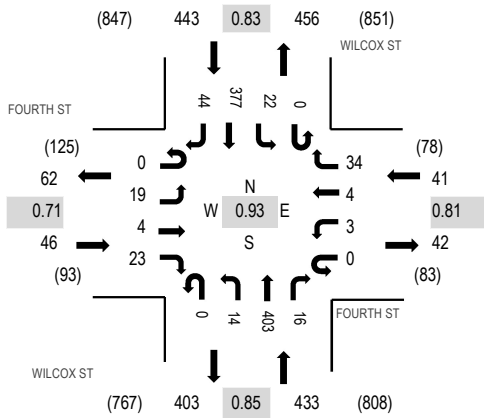
Location: 3 WILCOX ST & FOURTH ST PM

Date: Wednesday, July 28, 2021

Peak Hour: 04:30 PM - 05:30 PM

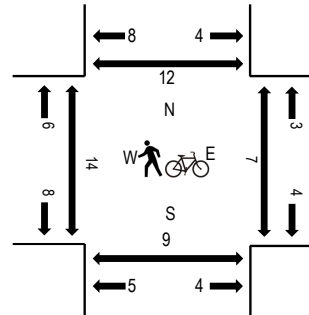
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FOURTH ST Eastbound				FOURTH ST Westbound				WILCOX ST Northbound				WILCOX ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	7	4	6	0	2	0	5	0	3	109	3	0	6	86	11	242	923	2	1	1	0
4:15 PM	0	2	4	5	0	0	0	9	0	7	87	3	0	5	82	8	212	940	2	1	1	1
4:30 PM	0	5	0	4	0	2	2	5	0	1	93	2	0	6	115	13	248	963	1	0	0	2
4:45 PM	0	6	0	5	0	0	1	10	0	4	90	3	0	5	85	12	221	931	6	3	5	5
5:00 PM	0	4	2	10	0	0	1	7	0	4	118	6	0	5	92	10	259	903	2	2	4	3
5:15 PM	0	4	2	4	0	1	0	12	0	5	102	5	0	6	85	9	235		4	1	0	2
5:30 PM	0	3	1	3	0	0	4	6	0	5	80	2	0	5	97	10	216		8	6	1	8
5:45 PM	0	6	3	3	0	1	1	9	0	2	72	2	0	3	79	12	193		6	3	0	4
Count Total	0	37	16	40	0	6	9	63	0	31	751	26	0	41	721	85	1,826		31	17	12	25
Peak Hour	0	19	4	23	0	3	4	34	0	14	403	16	0	22	377	44	963		13	6	9	12



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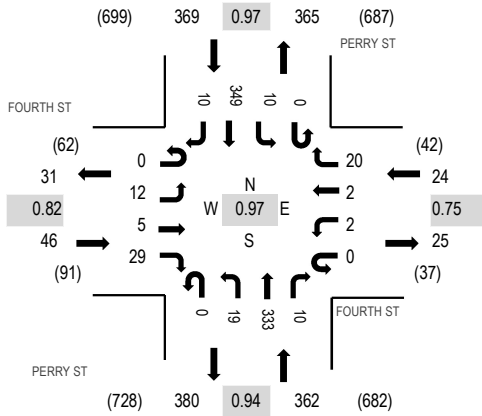
Location: 4 PERRY ST & FOURTH ST PM

Date: Wednesday, July 28, 2021

Peak Hour: 04:15 PM - 05:15 PM

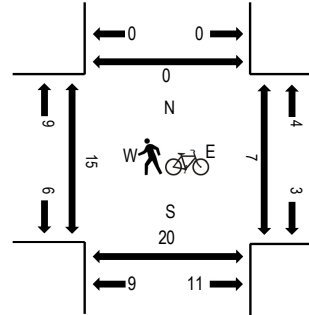
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	FOURTH ST Eastbound				FOURTH ST Westbound				PERRY ST Northbound				PERRY ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	4	2	5	0	0	2	4	0	5	76	1	1	0	89	1	190	788	5	0	1	0
4:15 PM	0	4	1	11	0	1	0	2	0	6	80	4	0	4	89	1	203	801	5	2	1	0
4:30 PM	0	1	2	4	0	0	0	7	0	5	88	2	0	4	90	3	206	786	7	0	4	0
4:45 PM	0	2	0	7	0	0	2	3	0	5	73	3	0	1	90	3	189	752	2	2	10	0
5:00 PM	0	5	2	7	0	1	0	8	0	3	92	1	0	1	80	3	203	726	1	3	5	0
5:15 PM	0	7	0	8	0	1	0	5	0	3	80	2	0	2	79	1	188		5	1	0	0
5:30 PM	0	1	0	10	0	0	0	2	0	8	82	1	0	2	65	1	172		2	1	3	0
5:45 PM	0	2	0	6	0	0	1	3	0	7	55	0	0	2	85	2	163		1	1	0	0
Count Total	0	26	7	58	0	3	5	34	0	42	626	14	1	16	667	15	1,514		28	10	24	0
Peak Hour	0	12	5	29	0	2	2	20	0	19	333	10	0	10	349	10	801		15	7	20	0



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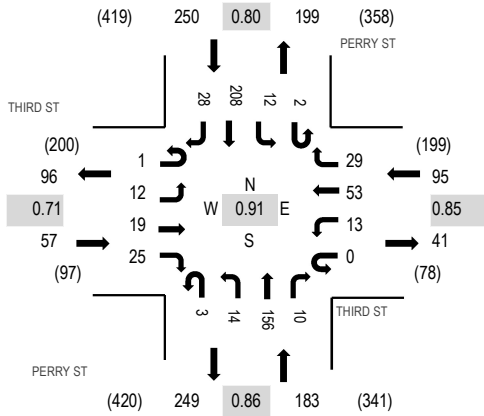
Location: 5 PERRY ST & THIRD ST AM

Date: Wednesday, July 28, 2021

Peak Hour: 08:00 AM - 09:00 AM

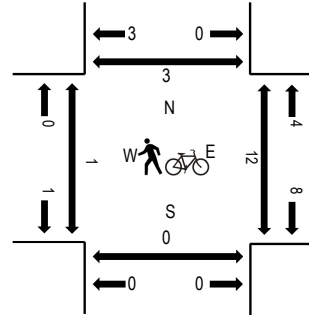
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	THIRD ST Eastbound				THIRD ST Westbound				PERRY ST Northbound				PERRY ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	4	5	0	2	13	7	1	10	18	2	1	0	31	2	97	471	0	1	0	0
7:15 AM	0	3	4	3	0	1	16	4	0	2	35	3	0	3	34	4	112	516	0	4	0	0
7:30 AM	0	2	4	2	0	3	19	7	0	2	24	3	0	2	35	5	108	537	0	0	0	0
7:45 AM	0	4	3	5	0	9	16	7	0	8	45	5	1	4	40	7	154	579	0	0	0	2
8:00 AM	0	3	4	7	0	7	13	7	0	5	37	2	2	3	48	4	142	585	0	1	0	1
8:15 AM	0	1	3	9	0	0	11	3	1	1	39	2	0	4	54	5	133		0	6	0	0
8:30 AM	0	3	3	4	0	3	21	10	2	4	45	3	0	2	43	7	150		1	5	0	2
8:45 AM	1	5	9	5	0	3	8	9	0	4	35	3	0	3	63	12	160		0	0	0	0
Count Total	1	22	34	40	0	28	117	54	4	36	278	23	4	21	348	46	1,056		1	17	0	5
Peak Hour	1	12	19	25	0	13	53	29	3	14	156	10	2	12	208	28	585		1	12	0	3



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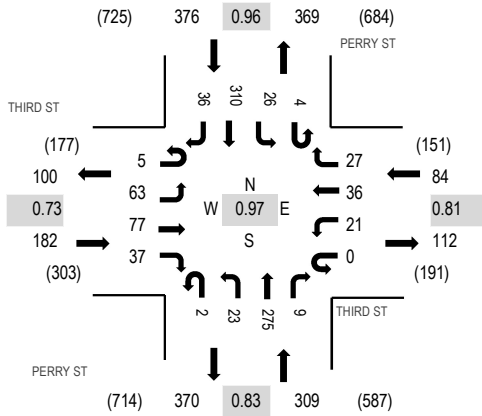
Location: 5 PERRY ST & THIRD ST PM

Date: Wednesday, July 28, 2021

Peak Hour: 04:15 PM - 05:15 PM

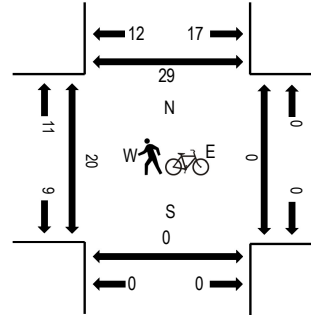
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	THIRD ST Eastbound				THIRD ST Westbound				PERRY ST Northbound				PERRY ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	2	7	9	5	0	8	5	7	0	4	66	2	0	4	81	9	209	916	1	0	0	0
4:15 PM	2	13	14	5	0	6	7	3	0	5	72	2	0	5	80	13	227	951	0	0	0	5
4:30 PM	0	9	19	11	0	7	6	9	0	7	81	6	0	7	77	7	246	927	2	0	0	11
4:45 PM	2	18	17	10	0	6	8	6	1	6	60	0	3	6	81	10	234	888	12	0	0	5
5:00 PM	1	23	27	11	0	2	15	9	1	5	62	1	1	8	72	6	244	850	5	0	0	8
5:15 PM	1	12	9	11	0	0	3	3	0	4	68	4	0	7	73	8	203		2	0	0	2
5:30 PM	0	10	15	8	0	7	6	11	0	2	68	4	1	5	57	13	207		9	0	0	5
5:45 PM	2	8	14	8	0	6	8	3	1	4	49	2	2	4	79	6	196		3	0	0	0
Count Total	10	100	124	69	0	42	58	51	3	37	526	21	7	46	600	72	1,766		34	0	0	36
Peak Hour	5	63	77	37	0	21	36	27	2	23	275	9	4	26	310	36	951		19	0	0	29

Date Start: 28-Jul-21
Site Code: 6
Station ID: 6
PERRY ST S.O. 5TH ST

Start Time	28-Jul-21 Wed	NB	SB	Total
12:00 AM		10	8	18
01:00		4	8	12
02:00		6	8	14
03:00		5	9	14
04:00		11	6	17
05:00		24	26	50
06:00		56	110	166
07:00		145	194	339
08:00		176	250	426
09:00		195	285	480
10:00		239	252	491
11:00		275	283	558
12:00 PM		304	318	622
01:00		295	292	587
02:00		278	283	561
03:00		277	322	599
04:00		367	403	770
05:00		329	295	624
06:00		240	278	518
07:00		208	181	389
08:00		125	136	261
09:00		80	74	154
10:00		48	38	86
11:00		16	19	35
Total		3713	4078	7791
Percent		47.7%	52.3%	
AM Peak	-	11:00	09:00	-
Vol.	-	275	285	-
PM Peak	-	16:00	16:00	-
Vol.	-	367	403	-
Grand Total		3713	4078	7791
Percent		47.7%	52.3%	
ADT		ADT 7,791	AADT 7,791	

Date Start: 28-Jul-21
Site Code: 7
Station ID: 7
4TH ST W.O. PERRY ST

Start Time	28-Jul-21 Wed	EB	WB	Total
12:00 AM		3	3	6
01:00		1	2	3
02:00		4	1	5
03:00		0	0	0
04:00		2	3	5
05:00		1	5	6
06:00		9	17	26
07:00		25	30	55
08:00		41	36	77
09:00		54	35	89
10:00		49	45	94
11:00		70	53	123
12:00 PM		86	52	138
01:00		52	35	87
02:00		39	29	68
03:00		42	35	77
04:00		45	36	81
05:00		50	31	81
06:00		34	18	52
07:00		36	22	58
08:00		30	16	46
09:00		12	4	16
10:00		9	5	14
11:00		6	0	6
Total		700	513	1213
Percent		57.7%	42.3%	
AM Peak	-	11:00	11:00	-
Vol.	-	70	53	-
PM Peak	-	12:00	12:00	-
Vol.	-	86	52	-
Grand Total		700	513	1213
Percent		57.7%	42.3%	
ADT		ADT 1,213	AADT 1,213	

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B	B	B											
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	W	E	S	N	E	W	N	S	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC

No

CRC (16 bit)

EFB7

Enable Automatic Backup to Datakey

No

Backup Prevent (MM) 1-1-3

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

Simultaneous Gap (MM) 1-1-4

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Must	8	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Gap	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disable		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	1	O				-	Auto			
10	2	O				-	Auto			
11	3	O				+	Auto			
12	4	O				+	Auto			
13	2	P				-	Auto	X		
14	4	P				+	Auto	X		X
15	6	P				-	Auto	X		
16	8	P				+	Auto	X		X

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Configuration Port 1 (SDLC)**Port 1 SDLC (MM) 1-4-1**

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack								

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

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

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Configuration Communications 1 (SDLC)**Ethernet Port Configuration (MM) 1-5-1**

DHCP Enable: No
 Controller IP: 10.50.60.53
 Subnet Mask: 255.255.255.0
 Default Gateway IP: 10.50.60.1
 Server IP: 10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec): 0
 NTCIP UDP Port: 501
 Ethernet Priority: 1
 Port 2 Priority (Port C50S for 2070): 4
 Port 3A Priority (Port C21S for 2070): 3
 Port 3B Priority (Port C22S for 2070): 2

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

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0
 Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector
-----------------	----------------

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
 Wireless Access Code: 327423274

Peer to Peer Setup (MM) 1-5-8

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name (Cobalt only)
1	503	10.50.60.52	1	5th/Wilcox
2	503	10.50.60.30	1	Virtual 3

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Configuration Logging / Display**Event Logging (MM) 1-6-1**

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: 5th Street & Perry Street
 Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
 OS (Boot) Version: 06.07.00

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

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

Logic #	Statement Control
1	E
2	E
21	D
22	D

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 21 - "PeerStpTim"

If:

	Peer	T/F	Assignment	#	State
IF	1	F	LP LOGIC FLAG	3	IS On
AND	--	F	VEH GREEN ON PH	2	IS On
AND	--	F	VEH GREEN ON PH	6	IS On

Then:

Assignment	#	State
CTR SET STIME ALL		On

Logic #: 22 - "Virt2StpTim"

If:

	Peer	T/F	Assignment	#	State
IF	2	F	LP LOGIC FLAG	3	IS On

Then:

Assignment	#	State
CTR SET STIME ALL		On

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

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
Direction	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Min Green	5	5	4	5	4	5	4	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	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	17	0	18	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	2.0	2.0	3.0	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
Max1	10	35	10	25	10	35	10	25	0	0	0	0	0	0	0	0
Max2	7	12	7	7	7	12	7	7	0	0	0	0	0	0	0	0
Max3	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 Step	0.0	0.0	0.0	0.0	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	1.0	2.0	1.0	2.0	1.0	2.0	1.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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
Direction	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Min Green	5	5	4	5	4	5	4	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	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	17	0	18	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	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0	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
Max1	10	35	10	25	10	35	10	25	35	35	35	35	35	35	35	35
Max2	7	12	7	7	7	12	7	7	40	40	40	40	40	40	40	40
Max3	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 Step	0.0	0.0	0.0	0.0	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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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
Direction	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Min Green	5	5	4	5	4	5	4	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	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	17	0	18	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	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0	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
Max1	10	30	30	25	10	30	10	25	35	35	35	35	35	35	35	35
Max2	7	12	7	7	7	12	7	7	40	40	40	40	40	40	40	40
Max3	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 Step	0.0	0.0	0.0	0.0	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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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
Direction	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Min Green	5	5	4	5	4	5	4	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk2	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	17	0	18	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	2.0	2.0	3.0	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
Max1	10	35	10	90	10	35	10	25	0	0	0	0	0	0	0	0
Max2	7	12	7	7	7	12	7	7	0	0	0	0	0	0	0	0
Max3	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 Step	0.0	0.0	0.0	0.0	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	1.0	2.0	1.0	2.0	1.0	2.0	1.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
E	1	Yes	No	No	No		No	No	
E	4	Yes	No	Yes	No		No	No	

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Isolate	9	0.0	0.0	1	No
B	3	4	Isolate	10	0.0	0.0	2	No
C	5	6	Isolate	11	0.0	0.0	3	No
D	7	8	Isolate	12	0.0	0.0	4	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Controller Pedestrian Overlaps**Vehicle / Pedestrian Overlaps (MM) 2-3**

Included	Pedestrian Overlaps
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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Controller Start / Flash Data (MM) 2-5**Start Up**

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

Overlap
A
B
C
D

Flash Thru Mon: No
 Flash Time: 0
 All Red: 6
 Power Start Seq: 1
 MUTCD Enabled: No
 Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
 Exit Flash: W
 Minimum Flash: 8
 Minimum Recall: No
 Cycle Through Phase: No

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X					X									
Non-Act II			X					X								
Dual Entry		X	X	X	X	X										
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

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

Phase Recall Options (MM) 2-8

Plan # 1

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

Plan # 2

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

Plan # 3

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

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Coordination Options**Options (MM) 3-1**

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reserve	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

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

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

Split Demand (MM) 3-5

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

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Coordination Pattern Data

Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	24s	Dwell/Add Time	31		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	12	44	12	22	12	44	12	22	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	80	Std (COS)	17	Offsets In	Seconds
Offset Value	56s	Dwell/Add Time	26		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	11	29	11	29	11	29	11	29	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80s	80s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	86s	Dwell/Add Time	33		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	13	44	10	33	13	44	10	33	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	120	Std (COS)	137	Offsets In	Seconds
Offset Value	56s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	16	44	16	44	16	44	16	44	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 12

Split Pattern	12	TS2 (Pat-Off)	3-3	Splits In	Seconds
Cycle	120	Std (COS)	145	Offsets In	Seconds
Offset Value	56s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	3		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Splits (Split Pat 12)	0	60	37	23	26	34	0	60	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Castle Rock, CO



Solutions that Move the World™

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Coordination Split Pattern
Split Pattern Data (MM) 3-3
Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Split (seconds)	12	44	12	22	12	44	12	22	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	90s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Split (seconds)	11	29	11	29	11	29	11	29	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	80s	80s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Split (seconds)	13	44	10	33	13	44	10	33	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Split (seconds)	16	44	16	44	16	44	16	44	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 12

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-T	S-L	N-T	E-L	W-T	N-L	S-T	N	N	N	N	N	N	N	N
Split (seconds)	0	60	37	23	26	34	0	60	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dwell Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dwell Ped	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	X	X	.	X	X	.	.	.	.	.	.	.	.
Cycling Ped	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.
Cycling Overlap	.	.	.	1-F1	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Exit Calls	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	23	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	5	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	18	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dwell Veh	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Calls	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4

Free During Pmt	No	No	No	No
-----------------	----	----	----	----

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	-	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	-	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off

Linked Pmt 0 FL Exit Color Red Exit Options Off
 Exit Timing Plan 0 Reservice 0 Fault Type Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out On Preempt Act Dwell No
 Other - Priority Preempt Off Non-Priority Pmt Off
 Inhibit Extension Time 0.0 Ped Priority Return Off
 Veh Priority Return Off Queue Delay Off
 Conditional Delay Off

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable Yes Preempt Override Yes Interlock Enable No
 Det Lock Yes Delay 0 Inhibit 0
 Override Flash Yes Duration 10 CLR > GRN No
 Term Ovlp Asap No PC Through Yel No Terminate Phase No
 Ped Dark No Track Clear Rsrv No Dwell Flash Off
 Linked Pmt 0 FL Exit Color Red Exit Options Off
 Exit Timing Plan 0 Reservice 0 Fault Type Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out On Preempt Act Dwell No
 Other - Priority Preempt Off Non-Priority Pmt Off
 Inhibit Extension Time 0.0 Ped Priority Return Off
 Veh Priority Return Off Queue Delay Off
 Conditional Delay Off

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

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

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP

Free Default Pattern: 120

Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Time Base Clock/Calendar**Clock/Calendar Data (MM) 5-1**

Manual Action Plan: 0
SYNC Reference Time: 00:00
SYNC Reference: Reference Time
Day Light Savings: No
Time Reset Input Set Time: 3:30:00
Standard Time From GMT: 0

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Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 4 - "2 NB omit"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit				X			X									

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 10 - "10"

Pattern	Auto	Override Sys	No
Timing Plan	4	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 11 - "11"

Pattern	11	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 12 - "12"

Pattern	12	Override Sys	No
Timing Plan	1	Sequence	3
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	1
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 22 - "steer drive"

Pattern	Free	Override Sys	No
Timing Plan	3	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit	X		X		X		X									
Spec Func (1-8)	X		X													
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3
Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	05:30
2	1	06:00
3	2	09:00
4	3	15:00
5	2	18:30
6	30	21:00
7	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	20	05:30
2	2	08:00
3	30	21:00
4	21	23:59

Day Plan #3 - "steer drive"

Event	Action Plan	Start Time
1	20	05:30
2	1	06:00
3	2	09:00
4	3	15:00
5	22	16:45
6	2	19:00
7	30	21:00
8	21	23:59

Day Plan #4 - "Star"

Event	Action Plan	Start Time
1	20	05:30
2	2	08:00
3	12	12:00
4	2	20:00
5	30	21:00
6	21	23:59
7	2	19:30

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Time Base Exceptions**Exception Day Program (MM) 5-5**

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FIXED	7	26	2019	3
2	FIXED	11	23	2019	4

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1	2	S
3	2		S
5	3	4	S
7	4		S
17	5	6	S
19	6		S
21	7	8	S
23	8		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S
23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S

23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S
23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	
2	S-STANDARD	Yes	
3	S-STANDARD	Yes	
4	C-CALLING	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	C-CALLING	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	G-GREEN EXT	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	G-GREEN EXT	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	C-CALLING	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	C-CALLING	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	G-GREEN EXT	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	G-GREEN EXT	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	

42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	3	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	7	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
23	8	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X

Castle Rock, CO



Solutions that Move the World™

051 - 5th St @ Perry St - Cobalt @ 10.50.60.53 - Econolite Type - Cobalt

Detectors**Detectors - Pg 2****Log - Speed Detector Setup (MM) 6-4**

NTCIP Log Period: 60

ECPI Log Period: 0

Length Unit: Inches

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) 6-5**Veh Diagnostic Plan Number - 1**

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
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Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
-----	--------	-----	------	------------	-------------	-------------------

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
-----	--------	-----	------	------------	-------------	-------------------

Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
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Pedestrian Detector Diagnostics (MM) 6-6**Ped Diagnostic Plan Number - 1**

Det	Counts	Act	Pres	Multiplier
2	0	0	60	1
4	0	0	60	1
6	0	0	60	1
8	0	0	60	1

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier
-----	--------	-----	------	------------

Ped Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier
-----	--------	-----	------	------------

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier
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Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B	B	B											
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	N	S	E	W	S	N	W	E	N	N	N	N	N	N	N	N
Movement	L	T	L	T	L	T	L	T								
Associated PED																
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC

No

CRC (16 bit)

E75C

Enable Automatic Backup to Datakey

No

Backup Prevent (MM) 1-1-3

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phases	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Simultaneous Gap (MM) 1-1-4

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Must	8	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Gap	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
With	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disable		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Configuration Port 1 (SDLC)**Port 1 SDLC (MM) 1-4-1**

BIU	1	2	3	4	5	6	7	8
Term & Facility								
Detector Rack								

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

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

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Configuration Communications 1 (SDLC)**Ethernet Port Configuration (MM) 1-5-1**

DHCP Enable: No
 Controller IP: 10.50.60.52
 Subnet Mask: 255.255.255.0
 Default Gateway IP: 10.50.60.1
 Server IP: 10.1.5.39

NTCIP (MM) 1-5-5

NTCIP Backup Time (Sec): 0
 NTCIP UDP Port: 501
 Ethernet Priority: 1
 Port 2 Priority (Port C50S for 2070): 4
 Port 3A Priority (Port C21S for 2070): 3
 Port 3B Priority (Port C22S for 2070): 2

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

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	NTCIP	NTCIP	NTCIP
Enable	No	No	No
Data Rate (BPS)	9600	9600	9600
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Half	Full	Full
Flow Control	No	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	0.0
RTS Turn Off Delay	n/a	n/a	0.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0
 Expanded System Detector Address: 0

System Detector Assignment

System Detector	Local Detector
-----------------	----------------

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1
 Wireless Access Code: 327423274

Peer to Peer Setup (MM) 1-5-8

Local Port: 503

Peer	Port	IP Address	Timeout	Peer Name (Cobalt only)
1	503	10.50.60.28	1	Virtual 1
2	503	10.50.60.53	1	5th/Perry

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Configuration Logging / Display**Event Logging (MM) 1-6-1**

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	Yes	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: 5th Street & Wilcox Street
 Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
 OS (Boot) Version: 06.07.00

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Solutions that Move the World™

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

Logic #	Statement Control
1	E
2	E
3	D
5	D
21	D

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - "Stop Time"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP COB CODE ON		520

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 2 - "CTL ST"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		424

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

Logic #: 3 - "Door Open"

If:

	Peer	T/F	Assignment	#	State
IF	--	F	LP CIB CODE ON		160

Then:

Assignment	#	State
CTR SET ALARM	1	On

Else:

Assignment	#	State
CTR SET ALARM	1	Off

Logic #: 5 - "TrainClr"

If:

	Peer	T/F	Assignment	#	State
IF	2	F	PMT PREEMPT ACTIVE	2	IS On

Then:

Assignment	#	State
PMT CALL PMT SEQ	6	On
LP DELAY FOR	23.0 Sec.	
PMT CALL PMT SEQ	6	Off

Logic #: 21 - "VirtStpTim"

If:

	Peer	T/F	Assignment	#	State
IF	1	F	CTR STOP TIME RING	1	IS On
OR	1	F	CTR STOP TIME RING	2	IS On

Then:

Assignment	#	State
CTR SET STIME ALL		On
LP SET LOGIC FLAG	3	On

Else:

Assignment	#	State
LP SET LOGIC FLAG	3	Off

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

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
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	10	3	10	3	10	3	10	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Walk2	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	13	0	17	0	18	0	18	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	1.5	0.0	1.5	3.0	1.5	0.0	1.5	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
Max1	15	30	15	30	25	30	12	30	0	0	0	0	0	0	0	0
Max2	12	12	7	7	12	12	7	7	0	0	0	0	0	0	0	0
Max3	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 Step	0.0	0.0	0.0	0.0	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	1.0	2.0	1.0	2.0	1.0	2.0	1.0	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	3	10	3	10	3	10	3	10	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	0.0	1.5	3.0	1.5	0.0	1.5	3.0	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
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	3	10	3	10	3	10	3	10	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	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	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	13	0	17	0	18	0	18	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	1.5	0.0	1.5	3.0	1.5	0.0	1.5	3.0	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
Max1	15	30	15	30	25	30	12	30	35	35	35	35	35	35	35	35
Max2	12	12	10	12	12	12	10	12	40	40	40	40	40	40	40	40
Max3	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 Step	0.0	0.0	0.0	0.0	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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0	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	3	10	3	10	3	10	3	10	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	1.5	0.0	1.5	3.0	1.5	0.0	1.5	3.0	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
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
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
Walk2	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
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	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 Step	0.0	0.0	0.0	0.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
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
Walk2	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
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	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 Step	0.0	0.0	0.0	0.0	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
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	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

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Controller Overlaps
Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
E	3	Yes	No	No	No		No	No	.
E	4	No	No	No	Yes		No	No	.
E	6	Yes	No	Yes	No		No	No	.
E	7	Yes	No	No	No		No	No	.
F	5	Yes	No	No	No		No	No	.
F	8	Yes	No	Yes	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
A	1	2	Green Overlap	13	0.0	0.0	0	No
B	3	4	Green Overlap	14	0.0	0.0	0	No
C	5	6	Green Overlap	15	0.0	0.0	0	No
D	7	8	Green Overlap	16	0.0	0.0	0	No

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	3	0	7	3.0	0.0	5
B02	3	0	7	3.0	0.0	5
C03	3	0	7	3.0	0.0	5
D04	3	0	7	3.0	0.0	5
E05	3	0	7	3.0	0.0	5
F06	3	0	7	3.0	0.0	5
G07	3	0	7	3.0	0.0	5
H08	3	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Controller Pedestrian Overlaps**Vehicle / Pedestrian Overlaps (MM) 2-3**

Included	Pedestrian Overlaps
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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Controller Start / Flash Data (MM) 2-5**Start Up**

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

Overlap
A
B
C
D

Flash Thru Mon: No
 Flash Time: 0
 All Red: 6
 Power Start Seq: 1
 MUTCD Enabled: No
 Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: No
 Exit Flash: W
 Minimum Flash: 8
 Minimum Recall: No
 Cycle Through Phase: No

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X					X									
Non-Act II			X					X								
Dual Entry		X	X	X	X	X										
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

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

Phase Recall Options (MM) 2-8

Plan # 1

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

Plan # 2

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

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Coordination Options**Options (MM) 3-1**

Manual Pattern	Auto	ECPI Coord	Yes
System Source	SYS	System Format	PTN
Splits In	Seconds	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Fixed
Offset Reference	Yellow	Use Ped Time	No
Ped Recall	No	Ped Reserve	No
Local Zero Override	Yes	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

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

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

Split Demand (MM) 3-5

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

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Coordination Pattern Data

Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	90	Std (COS)	9	Offsets In	Seconds
Offset Value	72s	Dwell/Add Time	30		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	12	31	12	35	12	31	12	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	90s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	80	Std (COS)	17	Offsets In	Seconds
Offset Value	16s	Dwell/Add Time	26		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	12	31	11	26	15	28	11	26	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80s	80s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	100	Std (COS)	25	Offsets In	Seconds
Offset Value	99s	Dwell/Add Time	33		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	12	38	17	33	26	24	11	39	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	100s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 10

Split Pattern	10	TS2 (Pat-Off)	3-1	Splits In	Seconds
Cycle	80	Std (COS)	105	Offsets In	Seconds
Offset Value	65s	Dwell/Add Time	26		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 10)	0	40	0	40	15	25	14	26	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80s	80s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	120	Std (COS)	137	Offsets In	Seconds
Offset Value	16s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	19	46	16	39	18	47	16	39	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Coordinator Pattern # 12

Split Pattern	12	TS2 (Pat-Off)	3-3	Splits In	Seconds
Cycle	120	Std (COS)	145	Offsets In	Seconds
Offset Value	69s	Dwell/Add Time	40		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	MAXINH	Force Off	Fixed		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Splits (Split Pat 12)	0	50	0	70	25	25	26	44	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	120s	120s	0s	0s

Misc. Data					
Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Function Outputs																

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Coordination Split Pattern
Split Pattern Data (MM) 3-3
Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	12	31	12	35	12	31	12	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	90s	0s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	12	31	11	26	15	28	11	26	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	80s	80s	0s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	12	38	17	33	26	24	11	39	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	100s	0s	0s

Split Pattern # 10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	0	40	0	40	15	25	14	26	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	80s	80s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	19	46	16	39	18	47	16	39	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Split Pattern # 12

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split (seconds)	0	50	0	70	25	25	26	44	0	0	0	0	0	0	0	0
Coord Phase				X				X								
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	120s	120s	0s	0s

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	-	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4

Free During Pmt	No	No	No	No
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Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	-	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trk Clr Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enable Trailing																
Dwell Veh	-	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-
Dwell Ped																
Dwell Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Veh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cycling Ped																
Cycling Overlap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrsv	No	Dwell Flash	Off

Linked Pmt 0 FL Exit Color Red Exit Options Off
 Exit Timing Plan 0 Reservice 0 Fault Type Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	120	3.0	1.0

Preemption Active Out On Preempt Act Dwell No
 Other - Priority Preempt Off Non-Priority Pmt Off
 Inhibit Extension Time 0.0 Ped Priority Return Off
 Veh Priority Return Off Queue Delay Off
 Conditional Delay Off

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

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

Input	Solid	Pulsing
1	...BYPASSED...	...BYPASSED...
2	...BYPASSED...	...BYPASSED...
3	PREEMPTION 3	PREEMPTION 7
4	PREEMPTION 4	PREEMPTION 8
5	PREEMPTION 5	PREEMPTION 9
6	PREEMPTION 6	PREEMPTION 10
7	...BYPASSED...	...BYPASSED...
8	...BYPASSED...	...BYPASSED...
9	...BYPASSED...	...BYPASSED...
10	...BYPASSED...	...BYPASSED...

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

TSP/SCP Plan	Enable Option	Signal Type	Det Lock	Delay Time	Max Presence	PMT Enables Reservice	No Delay in TSP	Action SF Inhibit	Reservice Cycles	Bus Heading
1	No	Solid	No	0	0	No	False	0	0	NB
2	No	Solid	No	0	0	No	False	0	0	SB
3	No	Solid	No	0	0	No	False	0	0	EB
4	No	Solid	No	0	0	No	False	0	0	WB
5	No	Solid	No	0	0	No	False	0	0	.
6	No	Solid	No	0	0	No	False	0	0	.

Mode: TSP

Free Default Pattern: 120

Headway Allowance: 0

TSP/SCP Plan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TSP / SCP Split Pattern (MM) 4-4

TSP/SCP Split Pattern	Max Type	Phase															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	Max Reduction	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

**Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1**

Manual Action Plan: 0
SYNC Reference Time: 00:00
SYNC Reference: Reference Time
Day Light Savings: No
Time Reset Input Set Time: 3:30:00
Standard Time From GMT: 0

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Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 4 - "2 NB omit"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit	X					X										

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 10 - "10"

Pattern	10	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit	X		X													

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 11 - "11"

Pattern	11	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 12 - "12"

Pattern	12	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 20 - "20"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 21 - "21"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	1	Ped Det Diag Plan	1
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X	X	X								
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 22 - "20 NB omit"

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit	X					X										

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Action Plan - 30 - "30"

Pattern	Free	Override Sys	No
Timing Plan	2	Sequence	1
Veh Detector Plan	1	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)																
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Aux Func (1-3)																
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 16-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 31-45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 46-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 61-75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 76-90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LP 91-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3
Day Plan #1 - "1"

Event	Action Plan	Start Time
1	20	05:30
2	1	06:00
3	2	09:00
4	3	15:00
5	2	18:30
6	30	21:00
7	21	23:59

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	20	05:30
2	2	08:00
3	30	21:00
4	21	23:59

Day Plan #3 - "I25 Nt Close"

Event	Action Plan	Start Time
1	21	05:00
2	20	05:30
3	1	06:00
4	2	09:00
5	3	15:00
6	2	18:30

Day Plan #4 - "start"

Event	Action Plan	Start Time
1	20	05:30
2	2	08:00
3	12	12:00
4	2	19:15
5	30	21:00
6	21	23:59
7	2	20:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Time Base Exceptions**Exception Day Program (MM) 5-5**

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FIXED	6	10	2019	3
2	FIXED	11	23	2019	4
3	FIXED	6	11	2019	3

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	5	6	S
2	6		S
5	7	8	S
6	4		S
17	1	2	S
18	2		S
21	3	4	S
22	8		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S
23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Plan Number - 3

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S

23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Plan Number - 4

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		C
5	5		S
6	6		S
7	7		S
8	8		C
9	2		S
10	2		S
11	4		G
12	4		S
13	6		S
14	6		S
15	8		G
16	8		S
17	1		S
18	2		S
19	3		S
20	4		C
21	5		S
22	6		S
23	7		S
24	8		C
25	2		S
26	4		S
27	6		G
28	8		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	
2	S-STANDARD	Yes	
3	S-STANDARD	Yes	
4	C-CALLING	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	C-CALLING	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	G-GREEN EXT	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	G-GREEN EXT	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	C-CALLING	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	C-CALLING	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	G-GREEN EXT	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	G-GREEN EXT	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	

42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	5	No	Yes	3.0	Passage	0.0	0	No	0	None	Yes	Yes	No
2	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	7	No	Yes	2.0	Passage	0.0	0	No	0	None	Yes	Yes	No
6	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	6.0	Passage	0.0	0	No	0	None	Yes	Yes	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	3.0	Passage	0.0	0	No	0	None	Yes	Yes	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	3	No	Yes	0.0	Passage	0.0	0	No	0	None	Yes	Yes	No
22	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	2.0	Passage	0.0	0	No	0	None	Yes	Yes	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
9	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	4	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No
25	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
11	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
12	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
13	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.

Ped Detector Number	Called Phase															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X

Castle Rock, CO



Solutions that Move the World™

050 - Wilcox St @ 5th St - Cobalt @ 10.50.60.52 - Econolite Type - Cobalt

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log Period: 60

ECPI Log Period: 0

Length Unit: Inches

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) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
1	0	0	22	15	255	0
5	0	0	22	15	255	0
14	0	0	22	15	255	0
17	0	0	22	15	255	0
21	0	0	22	15	255	0
30	0	0	22	15	255	0

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
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Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
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Veh Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay
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Pedestrian Detector Diagnostics (MM) 6-6

Ped Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier
2	0	0	60	1
4	0	0	60	1
6	0	0	60	1
8	0	0	60	1

Ped Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier
-----	--------	-----	------	------------

Ped Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier
-----	--------	-----	------	------------

Ped Diagnostic Plan Number - 4

Det	Counts	Act	Pres	Multiplier
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APPENDIX B

Level of Service Definitions

The following information can be found in the Highway Capacity Manual, Transportation Research Board, 2016: Chapter 19 – Signalized Intersections and Chapter 20 – Two-Way Stop Controlled Intersections.

Automobile Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A

Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B

Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C

Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D

Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E

Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F

Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Level of Service (LOS) for Unsignalized TWSC Intersections

Level of Service ($v/c \leq 1.0$)	Average Control Delay (s/veh)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

APPENDIX C

Capacity Worksheets

Timings
1: Wilcox Street & 5th Street

Existing Traffic Volumes
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	132	34	134	241	299	48	173	55	202	212	11
Future Volume (vph)	16	132	34	134	241	299	48	173	55	202	212	11
Satd. Flow (prot)	1770	1805	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.597			0.448			0.608			0.564		
Satd. Flow (perm)	1112	1805	0	835	1863	1583	1133	1863	1583	1051	1850	0
Satd. Flow (RTOR)		15				325			133		3	
Lane Group Flow (vph)	17	180	0	146	262	325	52	188	60	220	242	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	35.0		12.0	35.0	35.0	12.0	31.0	31.0	12.0	31.0	
Total Split (%)	13.3%	38.9%		13.3%	38.9%	38.9%	13.3%	34.4%	34.4%	13.3%	34.4%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	20.5	13.9		29.5	23.8	23.8	44.0	36.7	36.7	52.5	44.5	
Actuated g/C Ratio	0.23	0.15		0.33	0.26	0.26	0.49	0.41	0.41	0.58	0.49	
v/c Ratio	0.06	0.62		0.39	0.53	0.49	0.09	0.25	0.08	0.32	0.26	
Control Delay	18.8	41.5		17.8	23.7	3.7	10.9	21.5	0.2	11.6	16.9	
Queue Delay	0.0	0.0		0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.8	41.5		17.8	23.7	4.0	10.9	21.5	0.2	11.6	16.9	
LOS	B	D		B	C	A	B	C	A	B	B	
Approach Delay		39.5			13.8			15.4			14.4	
Approach LOS		D			B			B			B	
Queue Length 50th (ft)	6	89		31	60	0	12	69	0	56	82	
Queue Length 95th (ft)	18	146		45	79	7	33	148	0	113	162	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	353	591		378	600	730	645	764	727	694	916	
Starvation Cap Reductn	0	0		0	0	83	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	0.05	0.30		0.39	0.44	0.50	0.08	0.25	0.08	0.32	0.26	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Existing Traffic Volumes
AM Peak Hour

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	31 s	12 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	31 s	12 s	35 s

Timings
2: Perry Street & 5th Street

Existing Traffic Volumes
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	292	47	63	536	14	46	117	31	23	135	95
Future Volume (vph)	45	292	47	63	536	14	46	117	31	23	135	95
Satd. Flow (prot)	1770	1863	1583	1770	3525	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.415			0.520			0.531			0.676		
Satd. Flow (perm)	773	1863	1583	969	3525	0	989	1863	1583	1259	1863	1583
Satd. Flow (RTOR)			133		3				133			133
Lane Group Flow (vph)	49	317	51	68	598	0	50	127	34	25	147	103
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	12.0	44.0	44.0	12.0	44.0		12.0	22.0	22.0	12.0	22.0	22.0
Total Split (%)	13.3%	48.9%	48.9%	13.3%	48.9%		13.3%	24.4%	24.4%	13.3%	24.4%	24.4%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	58.2	51.6	51.6	59.6	53.7		19.3	14.1	14.1	17.0	11.4	11.4
Actuated g/C Ratio	0.65	0.57	0.57	0.66	0.60		0.21	0.16	0.16	0.19	0.13	0.13
v/c Ratio	0.09	0.30	0.05	0.10	0.28		0.19	0.43	0.09	0.09	0.63	0.33
Control Delay	10.7	17.1	2.4	7.3	12.0		25.4	37.9	0.5	23.5	48.4	6.2
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	17.4	2.4	7.3	12.0		25.4	37.9	0.5	23.5	48.4	6.2
LOS	B	B	A	A	B		C	D	A	C	D	A
Approach Delay		14.8			11.6			28.9			30.3	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	13	109	0	13	98		21	59	0	11	81	0
Queue Length 95th (ft)	34	181	7	34	162		44	115	0	27	134	27
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	603	1068	964	722	2102		283	363	415	300	331	390
Starvation Cap Reductn	0	295	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.41	0.05	0.09	0.28		0.18	0.35	0.08	0.08	0.44	0.26

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

Timings 2: Perry Street & 5th Street

Existing Traffic Volumes

AM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 18.0

Intersection LOS: B

Intersection Capacity Utilization 46.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	44 s	12 s	22 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	44 s	12 s	22 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Existing Traffic Volumes
AM Peak Hour

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	4	6	4	1	27	6	263	17	36	321	24
Future Vol, veh/h	14	4	6	4	1	27	6	263	17	36	321	24
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	50	-	-	50	-	-	80	-	-	105	-	-
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	4	7	4	1	29	7	286	18	39	349	26

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	764	758	362	755	762	295	375	0	0	304	0	0
Stage 1	440	440	-	309	309	-	-	-	-	-	-	-
Stage 2	324	318	-	446	453	-	-	-	-	-	-	-
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	349	349	*821	356	346	744	1214	-	-	1257	-	-
Stage 1	686	615	-	701	660	-	-	-	-	-	-	-
Stage 2	688	654	-	680	605	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	325	336	*821	340	333	744	1214	-	-	1257	-	-
Mov Cap-2 Maneuver	325	336	-	340	333	-	-	-	-	-	-	-
Stage 1	682	596	-	697	656	-	-	-	-	-	-	-
Stage 2	656	650	-	649	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	11	0.2	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1214	-	-	325	520	340	713	1257	-	-
HCM Lane V/C Ratio	0.005	-	-	0.047	0.021	0.013	0.043	0.031	-	-
HCM Control Delay (s)	8	-	-	16.6	12.1	15.7	10.3	8	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	0.1	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Existing Traffic Volumes
AM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	3	27	2	4	15	20	164	7	21	231	7
Future Vol, veh/h	14	3	27	2	4	15	20	164	7	21	231	7
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	55	-	-	-	-	-	80	-	-	90	-	-
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	3	29	2	4	16	22	178	8	23	251	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	537	531	255	543	531	182	259	0	0	186	0	0
Stage 1	301	301	-	226	226	-	-	-	-	-	-	-
Stage 2	236	230	-	317	305	-	-	-	-	-	-	-
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	513	489	*892	507	489	861	*1335	-	-	1388	-	-
Stage 1	799	706	-	777	717	-	-	-	-	-	-	-
Stage 2	767	714	-	781	703	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	487	473	*892	476	473	861	*1335	-	-	1388	-	-
Mov Cap-2 Maneuver	487	473	-	476	473	-	-	-	-	-	-	-
Stage 1	786	694	-	765	706	-	-	-	-	-	-	-
Stage 2	736	703	-	739	691	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		10.3		0.8		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1335	-	-	487	819	698	1388	-	-
HCM Lane V/C Ratio	0.016	-	-	0.031	0.04	0.033	0.016	-	-
HCM Control Delay (s)	7.7	-	-	12.6	9.6	10.3	7.6	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Existing Traffic Volumes
AM Peak Hour

Intersection				
Intersection Delay, s/veh	4.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	62	104	199	271
Demand Flow Rate, veh/h	63	106	202	277
Vehicles Circulating, veh/h	260	205	50	91
Vehicles Exiting, veh/h	108	47	273	220
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	4.1	4.1	4.8
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	63	106	202	277
Cap Entry Lane, veh/h	1058	1120	1311	1258
Entry HV Adj Factor	0.978	0.980	0.983	0.980
Flow Entry, veh/h	62	104	199	271
Cap Entry, veh/h	1035	1097	1289	1232
V/C Ratio	0.060	0.095	0.154	0.220
Control Delay, s/veh	4.0	4.1	4.1	4.8
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Timings
1: Wilcox Street & 5th Street

Existing Traffic Volumes
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	229	46	149	190	228	55	258	147	327	248	13
Future Volume (vph)	34	229	46	149	190	228	55	258	147	327	248	13
Satd. Flow (prot)	1770	1816	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.628			0.291			0.586			0.423		
Satd. Flow (perm)	1170	1816	0	542	1863	1583	1092	1863	1583	788	1850	0
Satd. Flow (RTOR)		11				248			164		3	
Lane Group Flow (vph)	37	299	0	162	207	248	60	280	160	355	284	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	39.0		11.0	33.0	33.0	12.0	24.0	24.0	26.0	38.0	
Total Split (%)	12.0%	39.0%		11.0%	33.0%	33.0%	12.0%	24.0%	24.0%	26.0%	38.0%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	28.7	21.3		34.2	27.5	27.5	42.1	34.5	34.5	56.4	46.4	
Actuated g/C Ratio	0.29	0.21		0.34	0.28	0.28	0.42	0.34	0.34	0.56	0.46	
v/c Ratio	0.10	0.76		0.57	0.40	0.40	0.12	0.44	0.25	0.59	0.33	
Control Delay	20.1	47.4		34.4	35.5	17.2	13.7	31.5	6.0	17.4	20.3	
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0	0.0	1.2	0.0	
Total Delay	20.1	47.4		34.4	35.5	17.4	13.7	31.5	6.0	18.6	20.3	
LOS	C	D		C	D	B	B	C	A	B	C	
Approach Delay		44.4			27.9			21.2			19.4	
Approach LOS		D			C			C			B	
Queue Length 50th (ft)	15	173		90	127	65	17	139	0	121	117	
Queue Length 95th (ft)	33	244		141	193	132	40	#289	51	203	204	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	414	606		286	599	677	540	642	653	665	859	
Starvation Cap Reductn	0	0		0	0	59	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	18	139	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.49		0.57	0.35	0.40	0.11	0.44	0.25	0.67	0.33	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings

1: Wilcox Street & 5th Street

Existing Traffic Volumes

PM Peak Hour

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	38 s	12 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
26 s	24 s	11 s	39 s

Timings
2: Perry Street & 5th Street

Existing Traffic Volumes
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	557	39	59	428	20	48	227	94	76	257	105
Future Volume (vph)	110	557	39	59	428	20	48	227	94	76	257	105
Satd. Flow (prot)	1770	1863	1583	1770	3514	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.430			0.284			0.330			0.375		
Satd. Flow (perm)	801	1863	1583	529	3514	0	615	1863	1583	699	1863	1583
Satd. Flow (RTOR)			120		5				120			120
Lane Group Flow (vph)	120	605	42	64	487	0	52	247	102	83	279	114
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0		3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	13.0	44.0	44.0	13.0	44.0		10.0	33.0	33.0	10.0	33.0	33.0
Total Split (%)	13.0%	44.0%	44.0%	13.0%	44.0%		10.0%	33.0%	33.0%	10.0%	33.0%	33.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	60.7	52.3	52.3	57.3	49.2		25.7	18.9	18.9	26.6	19.3	19.3
Actuated g/C Ratio	0.61	0.52	0.52	0.57	0.49		0.26	0.19	0.19	0.27	0.19	0.19
v/c Ratio	0.22	0.62	0.05	0.17	0.28		0.23	0.70	0.26	0.33	0.78	0.28
Control Delay	7.5	21.3	0.4	10.7	17.3		24.9	48.3	5.8	27.0	52.8	7.1
Queue Delay	0.0	0.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	22.2	0.4	10.7	17.3		24.9	48.3	5.8	27.0	52.8	7.1
LOS	A	C	A	B	B		C	D	A	C	D	A
Approach Delay		18.7			16.6			34.4			37.3	
Approach LOS		B			B			C			D	
Queue Length 50th (ft)	30	339	0	16	96		23	150	0	38	170	0
Queue Length 95th (ft)	56	#528	m1	39	157		46	213	31	67	241	38
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	583	974	884	429	1732		229	503	515	254	503	515
Starvation Cap Reductn	0	147	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.73	0.05	0.15	0.28		0.23	0.49	0.20	0.33	0.55	0.22

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Existing Traffic Volumes
PM Peak Hour

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 25.1

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

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: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	44 s	10 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	44 s	10 s	33 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Existing Traffic Volumes
PM Peak Hour

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	19	4	23	3	4	34	14	403	16	22	377	44
Future Vol, veh/h	19	4	23	3	4	34	14	403	16	22	377	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	50	-	-	50	-	-	80	-	-	105	-	-
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	4	25	3	4	37	15	438	17	24	410	48

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	979	967	434	974	983	447	458	0	0	455	0	0
Stage 1	482	482	-	477	477	-	-	-	-	-	-	-
Stage 2	497	485	-	497	506	-	-	-	-	-	-	-
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	227	242	761	229	235	612	1117	-	-	1106	-	-
Stage 1	663	593	-	569	556	-	-	-	-	-	-	-
Stage 2	555	552	-	646	573	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	204	233	761	212	226	612	1117	-	-	1106	-	-
Mov Cap-2 Maneuver	204	233	-	212	226	-	-	-	-	-	-	-
Stage 1	654	580	-	562	549	-	-	-	-	-	-	-
Stage 2	510	545	-	607	561	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17	13.2	0.3	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1117	-	-	204	570	212	519	1106	-	-
HCM Lane V/C Ratio	0.014	-	-	0.101	0.051	0.015	0.08	0.022	-	-
HCM Control Delay (s)	8.3	-	-	24.6	11.7	22.2	12.5	8.3	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	0.3	0.1	-	-

HCM 6th TWSC
4: Perry Street & 4th Street

Existing Traffic Volumes
PM Peak Hour

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	12	5	29	2	2	20	19	333	10	10	349	10
Future Vol, veh/h	12	5	29	2	2	20	19	333	10	10	349	10
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	55	-	-	-	-	-	80	-	-	90	-	-
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	5	32	2	2	22	21	362	11	11	379	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	829	822	385	835	822	368	390	0	0	373	0	0
Stage 1	407	407	-	410	410	-	-	-	-	-	-	-
Stage 2	422	415	-	425	412	-	-	-	-	-	-	-
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	*312	*315	*782	308	*315	677	*1171	-	-	1185	-	-
Stage 1	*738	*646	-	619	*595	-	-	-	-	-	-	-
Stage 2	*609	*592	-	729	*646	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	*294	*307	*782	286	*307	677	*1171	-	-	1185	-	-
Mov Cap-2 Maneuver	*294	*307	-	286	*307	-	-	-	-	-	-	-
Stage 1	*724	*640	-	608	*584	-	-	-	-	-	-	-
Stage 2	*577	*581	-	687	*640	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		11.8		0.4		0.2	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1171	-	-	294	637	557	1185	-	-
HCM Lane V/C Ratio	0.018	-	-	0.044	0.058	0.047	0.009	-	-
HCM Control Delay (s)	8.1	-	-	17.8	11	11.8	8.1	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0.1	0	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Existing Traffic Volumes
PM Peak Hour

Intersection				
Intersection Delay, s/veh	6.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	198	91	336	409
Demand Flow Rate, veh/h	202	93	343	418
Vehicles Circulating, veh/h	401	408	195	91
Vehicles Exiting, veh/h	108	130	408	410
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.2	5.0	6.2	6.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	202	93	343	418
Cap Entry Lane, veh/h	917	910	1131	1258
Entry HV Adj Factor	0.982	0.981	0.980	0.979
Flow Entry, veh/h	198	91	336	409
Cap Entry, veh/h	900	893	1108	1231
V/C Ratio	0.220	0.102	0.303	0.332
Control Delay, s/veh	6.2	5.0	6.2	6.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	1

Timings
1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2023 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	137	35	139	251	311	50	180	57	210	221	11
Future Volume (vph)	17	137	35	139	251	311	50	180	57	210	221	11
Satd. Flow (prot)	1770	1807	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.591			0.438			0.603			0.552		
Satd. Flow (perm)	1101	1807	0	816	1863	1583	1123	1863	1583	1028	1850	0
Satd. Flow (RTOR)		15				338			133		3	
Lane Group Flow (vph)	18	187	0	151	273	338	54	196	62	228	252	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	35.0		12.0	35.0	35.0	12.0	31.0	31.0	12.0	31.0	
Total Split (%)	13.3%	38.9%		13.3%	38.9%	38.9%	13.3%	34.4%	34.4%	13.3%	34.4%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	20.8	14.2		30.0	24.3	24.3	43.3	36.0	36.0	51.9	42.3	
Actuated g/C Ratio	0.23	0.16		0.33	0.27	0.27	0.48	0.40	0.40	0.58	0.47	
v/c Ratio	0.06	0.63		0.40	0.54	0.50	0.09	0.26	0.09	0.34	0.29	
Control Delay	18.5	41.7		17.7	23.5	3.7	11.2	22.4	0.2	12.0	18.2	
Queue Delay	0.0	0.0		0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.5	41.7		17.7	23.8	3.9	11.2	22.4	0.2	12.0	18.2	
LOS	B	D		B	C	A	B	C	A	B	B	
Approach Delay		39.6			13.8			16.0			15.3	
Approach LOS		D			B			B			B	
Queue Length 50th (ft)	7	93		33	64	0	13	73	0	59	87	
Queue Length 95th (ft)	19	150		46	81	7	35	156	0	119	171	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	355	592		379	600	739	631	753	719	679	871	
Starvation Cap Reductn	0	0		0	65	83	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	0.05	0.32		0.40	0.51	0.52	0.09	0.26	0.09	0.34	0.29	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2023 - AM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 17.6

Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	31 s	12 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	31 s	12 s	35 s

Timings

2: Perry Street & 5th Street

Background Traffic Volumes

Year 2023 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	304	49	66	558	15	48	122	32	24	140	99
Future Volume (vph)	47	304	49	66	558	15	48	122	32	24	140	99
Satd. Flow (prot)	1770	1863	1583	1770	3525	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.400			0.507			0.517			0.672		
Satd. Flow (perm)	745	1863	1583	944	3525	0	963	1863	1583	1252	1863	1583
Satd. Flow (RTOR)			133		4				133			133
Lane Group Flow (vph)	51	330	53	72	623	0	52	133	35	26	152	108
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	12.0	44.0	44.0	12.0	44.0		12.0	22.0	22.0	12.0	22.0	22.0
Total Split (%)	13.3%	48.9%	48.9%	13.3%	48.9%		13.3%	24.4%	24.4%	13.3%	24.4%	24.4%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	57.8	51.2	51.2	59.3	53.3		19.7	14.5	14.5	17.3	11.7	11.7
Actuated g/C Ratio	0.64	0.57	0.57	0.66	0.59		0.22	0.16	0.16	0.19	0.13	0.13
v/c Ratio	0.09	0.31	0.06	0.11	0.30		0.19	0.44	0.10	0.10	0.63	0.34
Control Delay	11.0	17.5	2.6	7.5	12.4		25.1	37.8	0.5	23.3	48.3	6.9
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	17.8	2.6	7.5	12.4		25.1	37.8	0.5	23.3	48.3	6.9
LOS	B	B	A	A	B		C	D	A	C	D	A
Approach Delay		15.2			11.9			28.9			30.4	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	14	117	0	14	104		22	61	0	11	83	0
Queue Length 95th (ft)	35	188	8	36	171		45	119	0	27	137	30
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	584	1062	959	703	2089		284	367	418	302	333	391
Starvation Cap Reductn	0	279	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.42	0.06	0.10	0.30		0.18	0.36	0.08	0.09	0.46	0.28

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Timings 2: Perry Street & 5th Street

Background Traffic Volumes

Year 2023 - AM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 47.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	44 s	12 s	22 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	44 s	12 s	22 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2023 - AM Peak Hour

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	15	4	6	4	1	28	6	274	18	37	334	25
Future Vol, veh/h	15	4	6	4	1	28	6	274	18	37	334	25
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	50	-	-	50	-	-	80	-	-	105	-	-
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	16	4	7	4	1	30	7	298	20	40	363	27

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	795	789	377	784	792	308	390	0	0	318	0	0
Stage 1	457	457	-	322	322	-	-	-	-	-	-	-
Stage 2	338	332	-	462	470	-	-	-	-	-	-	-
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	328	330	804	335	329	732	1195	-	-	1242	-	-
Stage 1	668	602	-	690	651	-	-	-	-	-	-	-
Stage 2	676	644	-	662	591	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	304	318	804	320	316	732	1195	-	-	1242	-	-
Mov Cap-2 Maneuver	304	318	-	320	316	-	-	-	-	-	-	-
Stage 1	664	583	-	686	647	-	-	-	-	-	-	-
Stage 2	643	640	-	631	572	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.5		11.1		0.2		0.7	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	304	499	320	700	1242	-	-
HCM Lane V/C Ratio	0.005	-	-	0.054	0.022	0.014	0.045	0.032	-	-
HCM Control Delay (s)	8	-	-	17.5	12.4	16.4	10.4	8	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	0.1	0.1	-	-

HCM 6th TWSC
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2023 - AM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	3	28	2	4	16	21	171	7	22	240	7
Future Vol, veh/h	15	3	28	2	4	16	21	171	7	22	240	7
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	55	-	-	-	-	-	80	-	-	90	-	-
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	16	3	30	2	4	17	23	186	8	24	261	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	560	553	265	566	553	190	269	0	0	194	0	0
Stage 1	313	313	-	236	236	-	-	-	-	-	-	-
Stage 2	247	240	-	330	317	-	-	-	-	-	-	-
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	492	473	*892	487	473	852	1331	-	-	1379	-	-
Stage 1	785	697	-	767	710	-	-	-	-	-	-	-
Stage 2	757	707	-	766	693	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	465	457	*892	455	457	852	1331	-	-	1379	-	-
Mov Cap-2 Maneuver	465	457	-	455	457	-	-	-	-	-	-	-
Stage 1	771	685	-	754	698	-	-	-	-	-	-	-
Stage 2	724	695	-	723	681	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.7		10.4		0.8		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1331	-	-	465	817	689	1379	-	-
HCM Lane V/C Ratio	0.017	-	-	0.035	0.041	0.035	0.017	-	-
HCM Control Delay (s)	7.8	-	-	13	9.6	10.4	7.7	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Background Traffic Volumes
Year 2023 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	4.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	65	108	207	283
Demand Flow Rate, veh/h	66	110	211	289
Vehicles Circulating, veh/h	271	215	53	96
Vehicles Exiting, veh/h	114	49	284	229
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.2	4.1	5.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	66	110	211	289
Cap Entry Lane, veh/h	1047	1108	1307	1251
Entry HV Adj Factor	0.978	0.980	0.983	0.980
Flow Entry, veh/h	65	108	207	283
Cap Entry, veh/h	1024	1086	1285	1226
V/C Ratio	0.063	0.099	0.161	0.231
Control Delay, s/veh	4.1	4.2	4.1	5.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Timings
1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2023 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	238	48	155	198	237	57	268	153	340	258	14
Future Volume (vph)	35	238	48	155	198	237	57	268	153	340	258	14
Satd. Flow (prot)	1770	1816	0	1770	1863	1583	1770	1863	1583	1770	1848	0
Flt Permitted	0.624			0.281			0.580			0.396		
Satd. Flow (perm)	1162	1816	0	523	1863	1583	1080	1863	1583	738	1848	0
Satd. Flow (RTOR)		11				258			164		3	
Lane Group Flow (vph)	38	311	0	168	215	258	62	291	166	370	295	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	39.0		11.0	33.0	33.0	12.0	24.0	24.0	26.0	38.0	
Total Split (%)	12.0%	39.0%		11.0%	33.0%	33.0%	12.0%	24.0%	24.0%	26.0%	38.0%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	29.4	22.0		34.4	27.9	27.9	40.6	32.9	32.9	56.0	45.9	
Actuated g/C Ratio	0.29	0.22		0.34	0.28	0.28	0.41	0.33	0.33	0.56	0.46	
v/c Ratio	0.10	0.76		0.60	0.41	0.41	0.13	0.47	0.26	0.63	0.35	
Control Delay	19.8	47.3		35.1	34.8	17.0	14.2	33.8	6.9	18.6	20.9	
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0	0.0	2.2	0.0	
Total Delay	19.8	47.3		35.1	34.8	17.1	14.2	33.8	6.9	20.8	20.9	
LOS	B	D		D	C	B	B	C	A	C	C	
Approach Delay		44.3			27.8			22.8			20.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	16	181		92	134	70	17	145	1	125	120	
Queue Length 95th (ft)	34	251		145	200	136	42	#327	56	217	217	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	420	606		280	601	686	518	613	631	647	849	
Starvation Cap Reductn	0	0		0	0	58	0	0	0	0	0	
Spillback Cap Reductn	0	1		0	0	0	0	0	33	158	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.51		0.60	0.36	0.41	0.12	0.47	0.28	0.76	0.35	
Intersection Summary												
Cycle Length: 100												
Actuated Cycle Length: 100												
Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green												
Natural Cycle: 60												
Control Type: Actuated-Coordinated												

Timings

1: Wilcox Street & 5th Street

Background Traffic Volumes

Year 2023 - PM Peak Hour

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 27.1

Intersection LOS: C

Intersection Capacity Utilization 73.6%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	38 s	12 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
26 s	24 s	11 s	39 s

Timings

2: Perry Street & 5th Street

Background Traffic Volumes

Year 2023 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	580	41	61	445	21	50	236	98	79	267	109
Future Volume (vph)	114	580	41	61	445	21	50	236	98	79	267	109
Satd. Flow (prot)	1770	1863	1583	1770	3514	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.416			0.259			0.312			0.368		
Satd. Flow (perm)	775	1863	1583	482	3514	0	581	1863	1583	685	1863	1583
Satd. Flow (RTOR)			120		5				120			120
Lane Group Flow (vph)	124	630	45	66	507	0	54	257	107	86	290	118
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0		3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	13.0	44.0	44.0	13.0	44.0		10.0	33.0	33.0	10.0	33.0	33.0
Total Split (%)	13.0%	44.0%	44.0%	13.0%	44.0%		10.0%	33.0%	33.0%	10.0%	33.0%	33.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	60.0	51.6	51.6	56.8	48.7		26.4	19.5	19.5	27.1	19.9	19.9
Actuated g/C Ratio	0.60	0.52	0.52	0.57	0.49		0.26	0.20	0.20	0.27	0.20	0.20
v/c Ratio	0.23	0.66	0.05	0.19	0.30		0.24	0.71	0.26	0.34	0.78	0.29
Control Delay	7.9	22.9	0.4	11.2	17.8		24.7	47.8	6.3	26.8	52.6	7.4
Queue Delay	0.0	1.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	24.0	0.4	11.2	17.8		24.7	47.8	6.3	26.8	52.6	7.4
LOS	A	C	A	B	B		C	D	A	C	D	A
Approach Delay		20.2			17.0			34.2			37.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	34	361	0	17	103		24	155	0	39	177	0
Queue Length 95th (ft)	57	#576	m1	40	163		47	219	33	68	248	41
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	562	961	875	403	1712		226	503	515	255	503	515
Starvation Cap Reductn	0	146	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.77	0.05	0.16	0.30		0.24	0.51	0.21	0.34	0.58	0.23

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Background Traffic Volumes
Year 2023 - PM Peak Hour

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 25.7

Intersection LOS: C

Intersection Capacity Utilization 68.0%

ICU Level of Service C

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: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	44 s	10 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	44 s	10 s	33 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2023 - PM Peak Hour

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	4	24	3	4	35	15	419	17	23	392	46
Future Vol, veh/h	20	4	24	3	4	35	15	419	17	23	392	46
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	50	-	-	50	-	-	80	-	-	105	-	-
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	22	4	26	3	4	38	16	455	18	25	426	50

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1018	1006	451	1012	1022	464	476	0	0	473	0	0
Stage 1	501	501	-	496	496	-	-	-	-	-	-	-
Stage 2	517	505	-	516	526	-	-	-	-	-	-	-
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	208	224	*750	212	217	598	1104	-	-	1089	-	-
Stage 1	662	587	-	556	545	-	-	-	-	-	-	-
Stage 2	541	540	-	644	566	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	186	216	*750	196	209	598	1104	-	-	1089	-	-
Mov Cap-2 Maneuver	186	216	-	196	209	-	-	-	-	-	-	-
Stage 1	652	573	-	548	537	-	-	-	-	-	-	-
Stage 2	495	532	-	603	553	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.2		13.6		0.3		0.4	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1104	-	-	186	554	196	502	1089	-	-
HCM Lane V/C Ratio	0.015	-	-	0.117	0.055	0.017	0.084	0.023	-	-
HCM Control Delay (s)	8.3	-	-	26.9	11.9	23.7	12.8	8.4	-	-
HCM Lane LOS	A	-	-	D	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	0.3	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2023 - PM Peak Hour

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	12	5	30	2	2	21	20	346	10	10	363	10
Future Vol, veh/h	12	5	30	2	2	21	20	346	10	10	363	10
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	55	-	-	-	-	-	80	-	-	90	-	-
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	5	33	2	2	23	22	376	11	11	395	11
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	861	854	401	868	854	382	406	0	0	387	0	0
Stage 1	423	423	-	426	426	-	-	-	-	-	-	-
Stage 2	438	431	-	442	428	-	-	-	-	-	-	-
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	292	297	*782	287	297	665	*1171	-	-	1171	-	-
Stage 1	732	642	-	606	586	-	-	-	-	-	-	-
Stage 2	597	583	-	709	637	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	274	289	*782	265	289	665	*1171	-	-	1171	-	-
Mov Cap-2 Maneuver	274	289	-	265	289	-	-	-	-	-	-	-
Stage 1	718	636	-	594	575	-	-	-	-	-	-	-
Stage 2	564	572	-	667	632	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.1			12			0.4			0.2		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	* 1171	-	-	274	629	543	1171	-	-			
HCM Lane V/C Ratio	0.019	-	-	0.048	0.06	0.05	0.009	-	-			
HCM Control Delay (s)	8.1	-	-	18.8	11.1	12	8.1	-	-			
HCM Lane LOS	A	-	-	C	B	B	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.2	0.2	0	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

HCM 6th Roundabout
5: Perry Street & 3rd Street

Background Traffic Volumes
Year 2023 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	6.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	205	94	349	425
Demand Flow Rate, veh/h	210	96	356	434
Vehicles Circulating, veh/h	417	425	203	94
Vehicles Exiting, veh/h	111	134	424	427
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	5.1	6.4	6.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	210	96	356	434
Cap Entry Lane, veh/h	902	895	1122	1254
Entry HV Adj Factor	0.977	0.981	0.980	0.979
Flow Entry, veh/h	205	94	349	425
Cap Entry, veh/h	881	878	1099	1228
V/C Ratio	0.233	0.107	0.317	0.346
Control Delay, s/veh	6.5	5.1	6.4	6.2
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	2

Timings
1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	196	51	199	358	444	71	257	82	300	315	16
Future Volume (vph)	24	196	51	199	358	444	71	257	82	300	315	16
Satd. Flow (prot)	1770	1805	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.500			0.334			0.547			0.397		
Satd. Flow (perm)	931	1805	0	622	1863	1583	1019	1863	1583	740	1850	0
Satd. Flow (RTOR)		13				483			230		3	
Lane Group Flow (vph)	26	268	0	216	389	483	77	279	89	326	359	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	7.0	27.0		15.0	35.0	35.0	7.0	28.0	28.0	20.0	41.0	
Total Split (%)	7.8%	30.0%		16.7%	38.9%	38.9%	7.8%	31.1%	31.1%	22.2%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	23.5	17.3		34.4	29.2	29.2	35.0	28.3	28.3	47.6	38.5	
Actuated g/C Ratio	0.26	0.19		0.38	0.32	0.32	0.39	0.31	0.31	0.53	0.43	
v/c Ratio	0.09	0.75		0.57	0.64	0.58	0.18	0.48	0.14	0.60	0.45	
Control Delay	17.0	45.9		26.5	26.8	7.3	15.6	30.9	0.4	18.6	22.4	
Queue Delay	0.0	0.5		0.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.0	46.3		26.5	27.7	7.5	15.6	30.9	0.4	18.6	22.4	
LOS	B	D		C	C	A	B	C	A	B	C	
Approach Delay		43.7			18.5			22.2			20.6	
Approach LOS		D			B			C			C	
Queue Length 50th (ft)	9	137		43	84	1	22	134	0	108	156	
Queue Length 95th (ft)	24	213		144	222	117	46	225	0	174	232	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	283	431		387	629	854	435	597	663	576	815	
Starvation Cap Reductn	0	0		0	73	57	0	0	0	0	0	
Spillback Cap Reductn	0	24		0	0	0	0	0	3	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.66		0.56	0.70	0.61	0.18	0.47	0.13	0.57	0.44	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 22.7

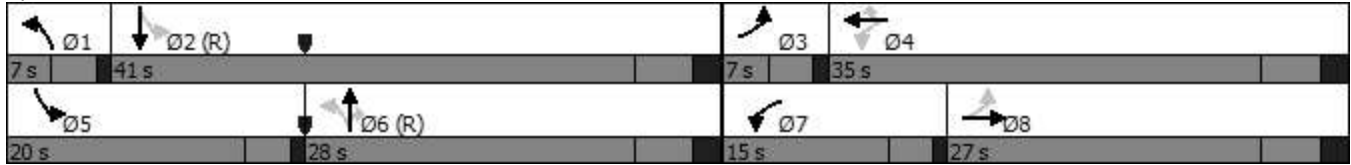
Intersection LOS: C

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Wilcox Street & 5th Street



Timings

2: Perry Street & 5th Street

Background Traffic Volumes

Year 2041 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	434	70	94	796	21	68	174	46	34	201	141
Future Volume (vph)	67	434	70	94	796	21	68	174	46	34	201	141
Satd. Flow (prot)	1770	1863	1583	1770	3525	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.249			0.371			0.391			0.626		
Satd. Flow (perm)	464	1863	1583	691	3525	0	728	1863	1583	1166	1863	1583
Satd. Flow (RTOR)			133		4				133			153
Lane Group Flow (vph)	73	472	76	102	888	0	74	189	50	37	218	153
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	9.0	47.0	47.0	9.0	47.0		9.0	26.0	26.0	8.0	25.0	25.0
Total Split (%)	10.0%	52.2%	52.2%	10.0%	52.2%		10.0%	28.9%	28.9%	8.9%	27.8%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	52.6	46.0	46.0	53.4	46.4		24.2	17.5	17.5	21.4	14.5	14.5
Actuated g/C Ratio	0.58	0.51	0.51	0.59	0.52		0.27	0.19	0.19	0.24	0.16	0.16
v/c Ratio	0.21	0.50	0.09	0.21	0.49		0.27	0.52	0.12	0.12	0.73	0.40
Control Delay	14.7	23.7	4.7	9.8	17.6		23.3	37.6	0.6	20.9	49.6	8.7
Queue Delay	0.0	0.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	24.2	4.7	9.8	17.6		23.3	37.6	0.6	20.9	49.6	8.7
LOS	B	C	A	A	B		C	D	A	C	D	A
Approach Delay		20.7			16.8			28.3			31.7	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	22	183	3	23	182		30	99	0	15	119	0
Queue Length 95th (ft)	m43	277	m11	51	262		57	158	0	33	184	49
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	352	982	897	482	1870		278	426	465	317	393	454
Starvation Cap Reductn	0	194	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.60	0.08	0.21	0.47		0.27	0.44	0.11	0.12	0.55	0.34

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Background Traffic Volumes

Year 2041 - AM Peak Hour

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 22.0

Intersection LOS: C

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
9 s	47 s	8 s	26 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
9 s	47 s	9 s	25 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

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	21	6	9	6	1	40	9	391	25	53	477	36
Future Vol, veh/h	21	6	9	6	1	40	9	391	25	53	477	36
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	50	-	-	50	-	-	80	-	-	105	-	-
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	23	7	10	7	1	43	10	425	27	58	518	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1135	1126	538	1121	1132	439	557	0	0	452	0	0
Stage 1	654	654	-	459	459	-	-	-	-	-	-	-
Stage 2	481	472	-	662	673	-	-	-	-	-	-	-
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	158	174	*677	164	171	618	*1013	-	-	1109	-	-
Stage 1	535	485	-	582	566	-	-	-	-	-	-	-
Stage 2	566	559	-	527	470	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	139	163	*677	149	161	618	*1013	-	-	1109	-	-
Mov Cap-2 Maneuver	139	163	-	149	161	-	-	-	-	-	-	-
Stage 1	530	460	-	576	560	-	-	-	-	-	-	-
Stage 2	520	553	-	485	446	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.3		14.1		0.2		0.8	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 1013	-	-	139	299	149	578	1109	-	-
HCM Lane V/C Ratio	0.01	-	-	0.164	0.055	0.044	0.077	0.052	-	-
HCM Control Delay (s)	8.6	-	-	35.9	17.7	30.3	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0.1	0.2	0.2	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

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	21	4	40	3	6	22	30	244	10	31	343	10
Future Vol, veh/h	21	4	40	3	6	22	30	244	10	31	343	10
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	55	-	-	-	-	-	80	-	-	90	-	-
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	23	4	43	3	7	24	33	265	11	34	373	11
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	799	789	379	807	789	271	384	0	0	276	0	0
Stage 1	447	447	-	337	337	-	-	-	-	-	-	-
Stage 2	352	342	-	470	452	-	-	-	-	-	-	-
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	332	334	*785	327	334	768	*1174	-	-	1287	-	-
Stage 1	701	620	-	677	641	-	-	-	-	-	-	-
Stage 2	665	638	-	675	616	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	303	317	*785	293	317	768	*1174	-	-	1287	-	-
Mov Cap-2 Maneuver	303	317	-	293	317	-	-	-	-	-	-	-
Stage 1	681	604	-	658	623	-	-	-	-	-	-	-
Stage 2	620	620	-	616	600	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12.9		12.2			0.9			0.6			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	* 1174	-	-	303	692	536	1287	-	-			
HCM Lane V/C Ratio	0.028	-	-	0.075	0.069	0.063	0.026	-	-			
HCM Control Delay (s)	8.2	-	-	17.8	10.6	12.2	7.9	-	-			
HCM Lane LOS	A	-	-	C	B	B	A	-	-			
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0.2	0.1	-	-			
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 6th Roundabout
5: Perry Street & 3rd Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	5.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	91	154	295	405
Demand Flow Rate, veh/h	93	157	301	413
Vehicles Circulating, veh/h	387	306	75	137
Vehicles Exiting, veh/h	163	70	405	326
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.9	5.1	4.9	6.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	93	157	301	413
Cap Entry Lane, veh/h	930	1010	1278	1200
Entry HV Adj Factor	0.983	0.983	0.980	0.981
Flow Entry, veh/h	91	154	295	405
Cap Entry, veh/h	914	992	1253	1177
V/C Ratio	0.100	0.155	0.235	0.344
Control Delay, s/veh	4.9	5.1	4.9	6.4
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	2

Timings
1: Wilcox Street & 5th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	340	68	221	282	339	82	383	218	486	369	19
Future Volume (vph)	51	340	68	221	282	339	82	383	218	486	369	19
Satd. Flow (prot)	1770	1816	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.573			0.144			0.516			0.152		
Satd. Flow (perm)	1067	1816	0	268	1863	1583	961	1863	1583	283	1850	0
Satd. Flow (RTOR)		9				368			207		3	
Lane Group Flow (vph)	55	444	0	240	307	368	89	416	237	528	422	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	7.0	29.0		14.0	36.0	36.0	9.0	30.0	30.0	27.0	48.0	
Total Split (%)	7.0%	29.0%		14.0%	36.0%	36.0%	9.0%	30.0%	30.0%	27.0%	48.0%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	28.2	23.0		39.8	32.2	32.2	30.1	23.2	23.2	52.2	43.0	
Actuated g/C Ratio	0.28	0.23		0.40	0.32	0.32	0.30	0.23	0.23	0.52	0.43	
v/c Ratio	0.17	1.05		0.90	0.51	0.49	0.27	0.96	0.45	1.08	0.53	
Control Delay	22.2	94.3		59.5	33.0	16.4	16.7	73.7	9.6	90.6	24.2	
Queue Delay	0.0	8.0		0.0	1.1	0.4	0.0	0.0	0.1	12.9	0.0	
Total Delay	22.2	102.3		59.5	34.1	16.8	16.7	73.7	9.7	103.5	24.2	
LOS	C	F		E	C	B	B	E	A	F	C	
Approach Delay		93.5			33.8			46.4			68.3	
Approach LOS		F			C			D			E	
Queue Length 50th (ft)	22	~305		136	189	111	27	260	15	~318	196	
Queue Length 95th (ft)	47	#500		#253	269	173	51	#442	78	#525	291	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	323	424		268	599	758	330	447	537	490	797	
Starvation Cap Reductn	0	0		0	123	111	0	0	0	0	0	
Spillback Cap Reductn	0	9		0	0	0	0	0	23	174	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	1.07		0.90	0.64	0.57	0.27	0.93	0.46	1.67	0.53	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Timings

1: Wilcox Street & 5th Street

Background Traffic Volumes

Year 2041 - PM Peak Hour

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 57.0

Intersection LOS: E

Intersection Capacity Utilization 98.0%

ICU Level of Service F

Analysis Period (min) 15

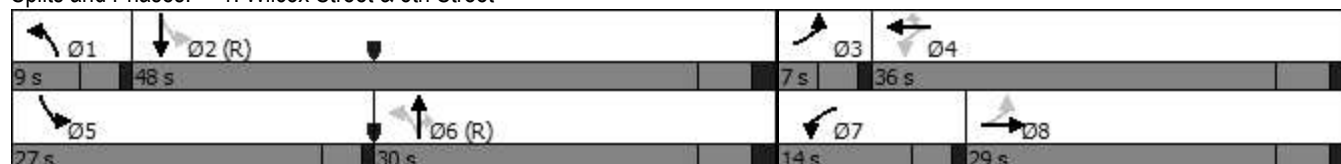
~ Volume exceeds capacity, queue is theoretically infinite.

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: 1: Wilcox Street & 5th Street



Timings

2: Perry Street & 5th Street

Background Traffic Volumes

Year 2041 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	828	58	88	636	30	71	337	140	113	382	156
Future Volume (vph)	163	828	58	88	636	30	71	337	140	113	382	156
Satd. Flow (prot)	1770	1863	1583	1770	3514	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.279			0.089			0.176			0.207		
Satd. Flow (perm)	520	1863	1583	166	3514	0	328	1863	1583	386	1863	1583
Satd. Flow (RTOR)			120		6				164			164
Lane Group Flow (vph)	177	900	63	96	724	0	77	366	152	123	415	170
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0		3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	13.0	55.0	55.0	8.0	50.0		8.0	29.0	29.0	8.0	29.0	29.0
Total Split (%)	13.0%	55.0%	55.0%	8.0%	50.0%		8.0%	29.0%	29.0%	8.0%	29.0%	29.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	59.4	49.8	49.8	52.1	45.9		27.9	21.9	21.9	28.7	23.5	23.5
Actuated g/C Ratio	0.59	0.50	0.50	0.52	0.46		0.28	0.22	0.22	0.29	0.24	0.24
v/c Ratio	0.43	0.97	0.07	0.62	0.45		0.52	0.90	0.32	0.74	0.95	0.34
Control Delay	6.5	35.0	1.0	30.9	19.8		37.6	63.7	6.3	54.8	71.0	7.8
Queue Delay	0.0	41.3	0.0	0.0	0.0		0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	76.3	1.0	30.9	19.8		37.8	63.7	6.3	54.8	71.0	7.8
LOS	A	E	A	C	B		D	E	A	D	E	A
Approach Delay		61.3			21.1			45.7			53.0	
Approach LOS		E			C			D			D	
Queue Length 50th (ft)	39	599	0	25	165		34	225	0	56	263	3
Queue Length 95th (ft)	m39	m596	m0	#65	216		69	#381	43	#130	#453	56
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	424	927	848	154	1616		149	428	490	166	438	498
Starvation Cap Reductn	0	192	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		2	0	0	0	0	8
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.42	1.22	0.07	0.62	0.45		0.52	0.86	0.31	0.74	0.95	0.35

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 46.6

Intersection LOS: D

Intersection Capacity Utilization 89.2%

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: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
8 s	55 s	8 s	29 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	50 s	8 s	29 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	6	34	4	6	51	21	599	24	33	560	65
Future Vol, veh/h	28	6	34	4	6	51	21	599	24	33	560	65
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	50	-	-	50	-	-	80	-	-	105	-	-
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	30	7	37	4	7	55	23	651	26	36	609	71

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1458	1440	645	1449	1462	664	680	0	0	677	0	0
Stage 1	717	717	-	710	710	-	-	-	-	-	-	-
Stage 2	741	723	-	739	752	-	-	-	-	-	-	-
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	62	77	*589	64	73	461	*881	-	-	915	-	-
Stage 1	518	460	-	424	437	-	-	-	-	-	-	-
Stage 2	408	431	-	493	431	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	48	72	*589	53	69	461	*881	-	-	915	-	-
Mov Cap-2 Maneuver	48	72	-	53	69	-	-	-	-	-	-	-
Stage 1	505	442	-	413	426	-	-	-	-	-	-	-
Stage 2	344	420	-	437	414	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	79.9		24.7		0.3		0.5	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 881	-	-	48	284	53	288	915	-	-
HCM Lane V/C Ratio	0.026	-	-	0.634	0.153	0.082	0.215	0.039	-	-
HCM Control Delay (s)	9.2	-	-	165.5	20	78.9	20.9	9.1	-	-
HCM Lane LOS	A	-	-	F	C	F	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.5	0.5	0.3	0.8	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

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	18	7	43	3	3	30	28	495	15	15	519	15
Future Vol, veh/h	18	7	43	3	3	30	28	495	15	15	519	15
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	55	-	-	-	-	-	80	-	-	90	-	-
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	20	8	47	3	3	33	30	538	16	16	564	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1228	1218	572	1238	1218	546	580	0	0	554	0	0
Stage 1	604	604	-	606	606	-	-	-	-	-	-	-
Stage 2	624	614	-	632	612	-	-	-	-	-	-	-
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	124	140	*653	121	140	538	*977	-	-	1016	-	-
Stage 1	607	533	-	484	487	-	-	-	-	-	-	-
Stage 2	473	483	-	574	526	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	110	134	*653	103	134	538	*977	-	-	1016	-	-
Mov Cap-2 Maneuver	110	134	-	103	134	-	-	-	-	-	-	-
Stage 1	588	525	-	469	472	-	-	-	-	-	-	-
Stage 2	428	468	-	517	518	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.7		17.1		0.5		0.2	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	*977	-	-	110	423	336	1016	-	-
HCM Lane V/C Ratio	0.031	-	-	0.178	0.128	0.116	0.016	-	-
HCM Control Delay (s)	8.8	-	-	44.7	14.8	17.1	8.6	-	-
HCM Lane LOS	A	-	-	E	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.4	0.4	0	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	9.1			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	294	135	499	608
Demand Flow Rate, veh/h	299	138	509	620
Vehicles Circulating, veh/h	596	607	288	135
Vehicles Exiting, veh/h	159	190	607	610
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.1	7.0	9.5	8.8
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	299	138	509	620
Cap Entry Lane, veh/h	751	743	1029	1202
Entry HV Adj Factor	0.982	0.977	0.981	0.981
Flow Entry, veh/h	294	135	499	608
Cap Entry, veh/h	738	726	1009	1179
V/C Ratio	0.398	0.186	0.495	0.516
Control Delay, s/veh	10.1	7.0	9.5	8.8
LOS	B	A	A	A
95th %tile Queue, veh	2	1	3	3

Timings
1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	137	35	139	251	311	50	180	57	210	222	11
Future Volume (vph)	17	137	35	139	251	311	50	180	57	210	222	11
Satd. Flow (prot)	1770	1807	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.591			0.438			0.602			0.552		
Satd. Flow (perm)	1101	1807	0	816	1863	1583	1121	1863	1583	1028	1850	0
Satd. Flow (RTOR)		15				338			133		3	
Lane Group Flow (vph)	18	187	0	151	273	338	54	196	62	228	253	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	35.0		12.0	35.0	35.0	12.0	31.0	31.0	12.0	31.0	
Total Split (%)	13.3%	38.9%		13.3%	38.9%	38.9%	13.3%	34.4%	34.4%	13.3%	34.4%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	20.8	14.2		30.0	24.3	24.3	43.3	36.0	36.0	51.9	42.3	
Actuated g/C Ratio	0.23	0.16		0.33	0.27	0.27	0.48	0.40	0.40	0.58	0.47	
v/c Ratio	0.06	0.63		0.40	0.54	0.50	0.09	0.26	0.09	0.34	0.29	
Control Delay	18.5	41.7		17.7	23.5	3.7	11.2	22.4	0.2	12.0	18.2	
Queue Delay	0.0	0.0		0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.5	41.7		17.7	23.8	3.9	11.2	22.4	0.2	12.0	18.2	
LOS	B	D		B	C	A	B	C	A	B	B	
Approach Delay		39.6			13.8			16.0			15.3	
Approach LOS		D			B			B			B	
Queue Length 50th (ft)	7	93		33	64	0	13	73	0	59	88	
Queue Length 95th (ft)	19	150		46	81	7	35	156	0	119	172	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	355	592		379	600	739	630	753	719	679	871	
Starvation Cap Reductn	0	0		0	65	83	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	0.05	0.32		0.40	0.51	0.52	0.09	0.26	0.09	0.34	0.29	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 17.6

Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	31 s	12 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	31 s	12 s	35 s

Timings

2: Perry Street & 5th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	304	49	68	558	15	48	122	33	24	141	99
Future Volume (vph)	47	304	49	68	558	15	48	122	33	24	141	99
Satd. Flow (prot)	1770	1863	1583	1770	3525	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.401			0.506			0.514			0.672		
Satd. Flow (perm)	747	1863	1583	943	3525	0	957	1863	1583	1252	1863	1583
Satd. Flow (RTOR)			133		4				133			133
Lane Group Flow (vph)	51	330	53	74	623	0	52	133	36	26	153	108
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	12.0	44.0	44.0	12.0	44.0		12.0	22.0	22.0	12.0	22.0	22.0
Total Split (%)	13.3%	48.9%	48.9%	13.3%	48.9%		13.3%	24.4%	24.4%	13.3%	24.4%	24.4%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	57.7	51.0	51.0	59.3	53.2		19.7	14.5	14.5	17.4	11.7	11.7
Actuated g/C Ratio	0.64	0.57	0.57	0.66	0.59		0.22	0.16	0.16	0.19	0.13	0.13
v/c Ratio	0.09	0.31	0.06	0.11	0.30		0.19	0.44	0.10	0.10	0.63	0.34
Control Delay	11.0	17.6	2.6	7.5	12.4		25.1	37.8	0.5	23.3	48.3	6.8
Queue Delay	0.0	0.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	17.9	2.6	7.5	12.4		25.1	37.8	0.5	23.3	48.3	6.8
LOS	B	B	A	A	B		C	D	A	C	D	A
Approach Delay		15.2			11.9			28.7			30.4	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	14	118	0	14	104		22	61	0	11	84	0
Queue Length 95th (ft)	35	188	8	37	171		45	119	0	27	138	30
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	584	1060	958	702	2086		284	367	418	303	333	391
Starvation Cap Reductn	0	277	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.42	0.06	0.11	0.30		0.18	0.36	0.09	0.09	0.46	0.28

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Timings 2: Perry Street & 5th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	44 s	12 s	22 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	44 s	12 s	22 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

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	15	4	6	4	1	28	6	274	19	38	334	25
Future Vol, veh/h	15	4	6	4	1	28	6	274	19	38	334	25
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	50	-	-	50	-	-	80	-	-	105	-	-
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	16	4	7	4	1	30	7	298	21	41	363	27

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	797	792	377	787	795	309	390	0
Stage 1	459	459	-	323	323	-	-	-
Stage 2	338	333	-	464	472	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-
Pot Cap-1 Maneuver	326	329	804	333	327	731	1195	-
Stage 1	666	600	-	689	650	-	-	-
Stage 2	676	644	-	660	590	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-
Mov Cap-1 Maneuver	303	316	804	317	314	731	1195	-
Mov Cap-2 Maneuver	303	316	-	317	314	-	-	-
Stage 1	662	580	-	685	646	-	-	-
Stage 2	643	640	-	628	570	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	11.1	0.2	0.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	303	497	317	699	1241	-	-
HCM Lane V/C Ratio	0.005	-	-	0.054	0.022	0.014	0.045	0.033	-	-
HCM Control Delay (s)	8	-	-	17.6	12.4	16.5	10.4	8	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	0.1	0.1	-	-

HCM 6th TWSC
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

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	15	4	28	3	4	17	21	171	7	25	240	7
Future Vol, veh/h	15	4	28	3	4	17	21	171	7	25	240	7
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	55	-	-	-	-	-	80	-	-	90	-	-
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	16	4	30	3	4	18	23	186	8	27	261	8

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	566	559	265	572	559	190	269	0
Stage 1	319	319	-	236	236	-	-	-
Stage 2	247	240	-	336	323	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-
Pot Cap-1 Maneuver	487	468	*892	481	468	852	1331	-
Stage 1	778	692	-	767	710	-	-	-
Stage 2	757	707	-	759	688	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-
Mov Cap-1 Maneuver	459	451	*892	448	451	852	1331	-
Mov Cap-2 Maneuver	459	451	-	448	451	-	-	-
Stage 1	765	678	-	754	698	-	-	-
Stage 2	723	695	-	714	675	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.5	0.8	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1331	-	-	459	795	676	1379	-	-
HCM Lane V/C Ratio	0.017	-	-	0.036	0.044	0.039	0.02	-	-
HCM Control Delay (s)	7.8	-	-	13.1	9.7	10.5	7.7	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Roundabout
5: Perry Street & 3rd Street

Total Traffic Volumes
Year 2023 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	4.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	65	108	207	284
Demand Flow Rate, veh/h	66	110	211	290
Vehicles Circulating, veh/h	272	215	53	96
Vehicles Exiting, veh/h	114	49	285	229
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.2	4.1	5.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	66	110	211	290
Cap Entry Lane, veh/h	1046	1108	1307	1251
Entry HV Adj Factor	0.978	0.980	0.983	0.980
Flow Entry, veh/h	65	108	207	284
Cap Entry, veh/h	1023	1086	1285	1226
V/C Ratio	0.063	0.099	0.161	0.232
Control Delay, s/veh	4.1	4.2	4.1	5.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Timings
1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	239	48	155	199	239	57	270	153	343	261	14
Future Volume (vph)	35	239	48	155	199	239	57	270	153	343	261	14
Satd. Flow (prot)	1770	1816	0	1770	1863	1583	1770	1863	1583	1770	1848	0
Flt Permitted	0.623			0.281			0.578			0.392		
Satd. Flow (perm)	1160	1816	0	523	1863	1583	1077	1863	1583	730	1848	0
Satd. Flow (RTOR)		11				260			164		3	
Lane Group Flow (vph)	38	312	0	168	216	260	62	293	166	373	299	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	12.0	39.0		11.0	33.0	33.0	12.0	24.0	24.0	26.0	38.0	
Total Split (%)	12.0%	39.0%		11.0%	33.0%	33.0%	12.0%	24.0%	24.0%	26.0%	38.0%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	29.4	22.0		34.3	27.9	27.9	40.4	32.7	32.7	56.0	45.9	
Actuated g/C Ratio	0.29	0.22		0.34	0.28	0.28	0.40	0.33	0.33	0.56	0.46	
v/c Ratio	0.10	0.77		0.60	0.42	0.41	0.13	0.48	0.26	0.63	0.35	
Control Delay	19.8	47.3		35.1	34.6	16.9	14.2	34.1	6.9	18.7	21.0	
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0	0.0	2.4	0.0	
Total Delay	19.8	47.3		35.1	34.6	17.0	14.2	34.1	6.9	21.1	21.0	
LOS	B	D		D	C	B	B	C	A	C	C	
Approach Delay		44.4			27.6			23.1			21.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	16	181		92	134	70	17	146	1	125	122	
Queue Length 95th (ft)	34	251		144	199	135	42	#331	56	219	219	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	420	606		279	602	687	515	609	628	645	849	
Starvation Cap Reductn	0	0		0	0	59	0	0	0	0	0	
Spillback Cap Reductn	0	1		0	0	0	0	0	37	160	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.52		0.60	0.36	0.41	0.12	0.48	0.28	0.77	0.35	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 27.2

Intersection LOS: C

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	38 s	12 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
26 s	24 s	11 s	39 s

Timings

2: Perry Street & 5th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	580	45	70	445	21	53	238	103	79	271	109
Future Volume (vph)	114	580	45	70	445	21	53	238	103	79	271	109
Satd. Flow (prot)	1770	1863	1583	1770	3514	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.419			0.252			0.308			0.369		
Satd. Flow (perm)	780	1863	1583	469	3514	0	574	1863	1583	687	1863	1583
Satd. Flow (RTOR)			120		5				120			120
Lane Group Flow (vph)	124	630	49	76	507	0	58	259	112	86	295	118
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0		3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	13.0	44.0	44.0	13.0	44.0		10.0	33.0	33.0	10.0	33.0	33.0
Total Split (%)	13.0%	44.0%	44.0%	13.0%	44.0%		10.0%	33.0%	33.0%	10.0%	33.0%	33.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	59.4	51.0	51.0	56.8	48.4		26.8	19.9	19.9	27.3	20.1	20.1
Actuated g/C Ratio	0.59	0.51	0.51	0.57	0.48		0.27	0.20	0.20	0.27	0.20	0.20
v/c Ratio	0.23	0.66	0.06	0.22	0.30		0.26	0.70	0.27	0.34	0.79	0.29
Control Delay	8.1	23.6	0.6	11.5	17.9		24.8	46.9	6.6	26.6	52.6	7.3
Queue Delay	0.0	1.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	24.8	0.6	11.5	17.9		24.8	46.9	6.6	26.6	52.6	7.3
LOS	A	C	A	B	B		C	D	A	C	D	A
Approach Delay		20.7			17.1			33.4			37.4	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	35	364	0	19	103		25	155	0	38	180	0
Queue Length 95th (ft)	57	#587	m2	45	163		49	219	36	67	252	41
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	559	950	866	395	1703		228	503	515	256	503	515
Starvation Cap Reductn	0	143	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.78	0.06	0.19	0.30		0.25	0.51	0.22	0.34	0.59	0.23

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 25.8

Intersection LOS: C

Intersection Capacity Utilization 68.7%

ICU Level of Service C

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: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	44 s	10 s	33 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	44 s	10 s	33 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	4	24	5	4	37	15	419	20	26	392	46
Future Vol, veh/h	20	4	24	5	4	37	15	419	20	26	392	46
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	50	-	-	50	-	-	80	-	-	105	-	-
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	22	4	26	5	4	40	16	455	22	28	426	50

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1027	1016	451	1020	1030	466	476	0	0	477	0	0
Stage 1	507	507	-	498	498	-	-	-	-	-	-	-
Stage 2	520	509	-	522	532	-	-	-	-	-	-	-
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	204	220	*750	208	214	597	1104	-	-	1085	-	-
Stage 1	655	582	-	554	544	-	-	-	-	-	-	-
Stage 2	539	538	-	637	561	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	182	211	*750	191	205	597	1104	-	-	1085	-	-
Mov Cap-2 Maneuver	182	211	-	191	205	-	-	-	-	-	-	-
Stage 1	645	567	-	546	536	-	-	-	-	-	-	-
Stage 2	491	530	-	595	547	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.4		14.2		0.3		0.5	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1104	-	-	182	549	191	503	1085	-	-
HCM Lane V/C Ratio	0.015	-	-	0.119	0.055	0.028	0.089	0.026	-	-
HCM Control Delay (s)	8.3	-	-	27.4	11.9	24.4	12.9	8.4	-	-
HCM Lane LOS	A	-	-	D	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	0.3	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

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	12	11	30	8	8	31	20	346	15	27	363	10
Future Vol, veh/h	12	11	30	8	8	31	20	346	15	27	363	10
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	55	-	-	-	-	-	80	-	-	90	-	-
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	12	33	9	9	34	22	376	16	29	395	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	909	895	401	909	892	384	406	0	0	392	0	0
Stage 1	459	459	-	428	428	-	-	-	-	-	-	-
Stage 2	450	436	-	481	464	-	-	-	-	-	-	-
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	263	276	*782	263	277	664	*1171	-	-	1167	-	-
Stage 1	689	611	-	605	585	-	-	-	-	-	-	-
Stage 2	589	580	-	663	607	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	235	264	*782	235	265	664	*1171	-	-	1167	-	-
Mov Cap-2 Maneuver	235	264	-	235	265	-	-	-	-	-	-	-
Stage 1	676	596	-	594	574	-	-	-	-	-	-	-
Stage 2	540	569	-	607	592	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.6			14.7			0.4			0.6		
HCM LOS	B			B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1171	-	-	235	512	424	1167	-	-
HCM Lane V/C Ratio	0.019	-	-	0.056	0.087	0.12	0.025	-	-
HCM Control Delay (s)	8.1	-	-	21.2	12.7	14.7	8.2	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.3	0.4	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Total Traffic Volumes
Year 2023 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	6.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	206	96	352	429
Demand Flow Rate, veh/h	211	98	359	438
Vehicles Circulating, veh/h	420	429	205	94
Vehicles Exiting, veh/h	112	135	426	433
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	5.2	6.4	6.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	211	98	359	438
Cap Entry Lane, veh/h	899	891	1120	1254
Entry HV Adj Factor	0.978	0.982	0.980	0.979
Flow Entry, veh/h	206	96	352	429
Cap Entry, veh/h	879	874	1097	1228
V/C Ratio	0.235	0.110	0.321	0.349
Control Delay, s/veh	6.5	5.2	6.4	6.2
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	2

Timings
1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	196	51	199	358	444	71	257	82	300	316	16
Future Volume (vph)	24	196	51	199	358	444	71	257	82	300	316	16
Satd. Flow (prot)	1770	1805	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.500			0.334			0.546			0.397		
Satd. Flow (perm)	931	1805	0	622	1863	1583	1017	1863	1583	740	1850	0
Satd. Flow (RTOR)		13				483			230		3	
Lane Group Flow (vph)	26	268	0	216	389	483	77	279	89	326	360	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	7.0	27.0		15.0	35.0	35.0	7.0	28.0	28.0	20.0	41.0	
Total Split (%)	7.8%	30.0%		16.7%	38.9%	38.9%	7.8%	31.1%	31.1%	22.2%	45.6%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	23.5	17.3		34.4	29.2	29.2	35.0	28.3	28.3	47.6	38.5	
Actuated g/C Ratio	0.26	0.19		0.38	0.32	0.32	0.39	0.31	0.31	0.53	0.43	
v/c Ratio	0.09	0.75		0.57	0.64	0.58	0.18	0.48	0.14	0.60	0.45	
Control Delay	17.0	45.9		26.6	26.9	7.3	15.6	30.9	0.4	18.6	22.4	
Queue Delay	0.0	0.5		0.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.0	46.3		26.6	27.7	7.6	15.6	30.9	0.4	18.6	22.4	
LOS	B	D		C	C	A	B	C	A	B	C	
Approach Delay		43.7			18.6			22.2			20.6	
Approach LOS		D			B			C			C	
Queue Length 50th (ft)	9	137		43	84	1	22	134	0	108	156	
Queue Length 95th (ft)	24	213		144	222	117	46	225	0	174	232	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	283	431		387	629	854	434	597	663	576	815	
Starvation Cap Reductn	0	0		0	73	57	0	0	0	0	0	
Spillback Cap Reductn	0	24		0	0	0	0	0	3	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.66		0.56	0.70	0.61	0.18	0.47	0.13	0.57	0.44	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings 1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 22.7

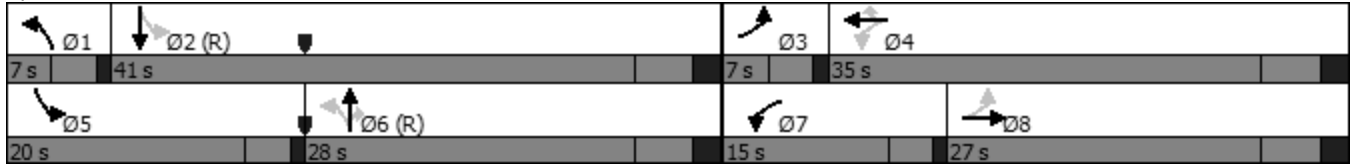
Intersection LOS: C

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Wilcox Street & 5th Street



Timings
2: Perry Street & 5th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	434	70	96	796	21	68	174	47	34	202	141
Future Volume (vph)	67	434	70	96	796	21	68	174	47	34	202	141
Satd. Flow (prot)	1770	1863	1583	1770	3525	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.249			0.369			0.387			0.626		
Satd. Flow (perm)	464	1863	1583	687	3525	0	721	1863	1583	1166	1863	1583
Satd. Flow (RTOR)			133		4				133			153
Lane Group Flow (vph)	73	472	76	104	888	0	74	189	51	37	220	153
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	9.0	47.0	47.0	9.0	47.0		9.0	26.0	26.0	8.0	25.0	25.0
Total Split (%)	10.0%	52.2%	52.2%	10.0%	52.2%		10.0%	28.9%	28.9%	8.9%	27.8%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	52.5	45.9	45.9	53.4	46.3		24.3	17.5	17.5	21.5	14.6	14.6
Actuated g/C Ratio	0.58	0.51	0.51	0.59	0.51		0.27	0.19	0.19	0.24	0.16	0.16
v/c Ratio	0.21	0.50	0.09	0.22	0.49		0.27	0.52	0.12	0.12	0.73	0.40
Control Delay	14.8	23.8	4.7	9.9	17.6		23.3	37.4	0.6	20.9	49.7	8.6
Queue Delay	0.0	0.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	24.3	4.7	9.9	17.6		23.3	37.4	0.6	20.9	49.7	8.6
LOS	B	C	A	A	B		C	D	A	C	D	A
Approach Delay		20.8			16.8			28.1			31.8	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	22	183	3	23	182		30	99	0	15	120	0
Queue Length 95th (ft)	m43	277	m11	52	262		57	158	0	33	186	49
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	352	981	896	480	1867		277	427	465	318	393	454
Starvation Cap Reductn	0	193	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.60	0.08	0.22	0.48		0.27	0.44	0.11	0.12	0.56	0.34

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Timings 2: Perry Street & 5th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 22.0

Intersection LOS: C

Intersection Capacity Utilization 59.2%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
9 s	47 s	8 s	26 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
9 s	47 s	9 s	25 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

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	21	6	9	6	1	40	9	391	26	54	477	36
Future Vol, veh/h	21	6	9	6	1	40	9	391	26	54	477	36
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	50	-	-	50	-	-	80	-	-	105	-	-
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	23	7	10	7	1	43	10	425	28	59	518	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1137	1129	538	1123	1134	439	557	0	0	453	0	0
Stage 1	656	656	-	459	459	-	-	-	-	-	-	-
Stage 2	481	473	-	664	675	-	-	-	-	-	-	-
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	157	172	*677	163	171	618	*1013	-	-	1108	-	-
Stage 1	533	483	-	582	566	-	-	-	-	-	-	-
Stage 2	566	558	-	525	469	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	139	162	*677	148	160	618	*1013	-	-	1108	-	-
Mov Cap-2 Maneuver	139	162	-	148	160	-	-	-	-	-	-	-
Stage 1	528	458	-	576	560	-	-	-	-	-	-	-
Stage 2	520	552	-	483	444	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	28.4		14.1		0.2		0.8	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 1013	-	-	139	298	148	578	1108	-	-
HCM Lane V/C Ratio	0.01	-	-	0.164	0.055	0.044	0.077	0.053	-	-
HCM Control Delay (s)	8.6	-	-	35.9	17.8	30.4	11.7	8.4	-	-
HCM Lane LOS	A	-	-	E	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0.1	0.2	0.2	-	-

Notes										
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon				

HCM 6th TWSC
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

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	21	6	40	4	6	23	30	244	10	34	343	10
Future Vol, veh/h	21	6	40	4	6	23	30	244	10	34	343	10
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	55	-	-	-	-	-	80	-	-	90	-	-
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	23	7	43	4	7	25	33	265	11	37	373	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	806	795	379	815	795	271	384	0	0	276	0	0
Stage 1	453	453	-	337	337	-	-	-	-	-	-	-
Stage 2	353	342	-	478	458	-	-	-	-	-	-	-
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	327	331	*785	321	331	768	*1174	-	-	1287	-	-
Stage 1	694	615	-	677	641	-	-	-	-	-	-	-
Stage 2	664	638	-	665	611	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	298	312	*785	285	312	768	*1174	-	-	1287	-	-
Mov Cap-2 Maneuver	298	312	-	285	312	-	-	-	-	-	-	-
Stage 1	675	598	-	658	623	-	-	-	-	-	-	-
Stage 2	618	620	-	604	593	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.2		12.4		0.9		0.7	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1174	-	-	298	655	522	1287	-	-
HCM Lane V/C Ratio	0.028	-	-	0.077	0.076	0.069	0.029	-	-
HCM Control Delay (s)	8.2	-	-	18.1	11	12.4	7.9	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0.2	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	5.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	91	154	295	406
Demand Flow Rate, veh/h	93	157	301	414
Vehicles Circulating, veh/h	388	306	75	137
Vehicles Exiting, veh/h	163	70	406	326
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.9	5.1	4.9	6.4
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	93	157	301	414
Cap Entry Lane, veh/h	929	1010	1278	1200
Entry HV Adj Factor	0.983	0.983	0.980	0.981
Flow Entry, veh/h	91	154	295	406
Cap Entry, veh/h	913	992	1253	1177
V/C Ratio	0.100	0.155	0.235	0.345
Control Delay, s/veh	4.9	5.1	4.9	6.4
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	2

Timings
1: Wilcox Street & 5th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	341	68	221	283	341	82	385	218	489	372	19
Future Volume (vph)	51	341	68	221	283	341	82	385	218	489	372	19
Satd. Flow (prot)	1770	1816	0	1770	1863	1583	1770	1863	1583	1770	1850	0
Flt Permitted	0.573			0.144			0.515			0.151		
Satd. Flow (perm)	1067	1816	0	222	1863	1583	959	1863	1583	281	1850	0
Satd. Flow (RTOR)		9				371			207		3	
Lane Group Flow (vph)	55	445	0	240	308	371	89	418	237	532	425	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	3	8		7	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	3.0	10.0		3.0	10.0	10.0	3.0	10.0	10.0	3.0	10.0	
Minimum Split (s)	7.0	16.0		7.0	16.0	16.0	7.0	16.0	16.0	7.0	16.0	
Total Split (s)	7.0	29.0		14.0	36.0	36.0	9.0	30.0	30.0	27.0	48.0	
Total Split (%)	7.0%	29.0%		14.0%	36.0%	36.0%	9.0%	30.0%	30.0%	27.0%	48.0%	
Yellow Time (s)	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0	
All-Red Time (s)	1.0	2.0		1.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Min	C-Min	None	C-Min	
Act Effct Green (s)	28.2	23.0		39.7	32.1	32.1	30.1	23.3	23.3	52.3	43.1	
Actuated g/C Ratio	0.28	0.23		0.40	0.32	0.32	0.30	0.23	0.23	0.52	0.43	
v/c Ratio	0.17	1.05		0.94	0.52	0.49	0.27	0.97	0.45	1.09	0.53	
Control Delay	22.2	95.3		69.8	33.0	16.3	16.7	74.3	9.6	93.9	24.3	
Queue Delay	0.0	8.1		0.0	1.1	0.4	0.0	0.0	0.1	9.0	0.0	
Total Delay	22.2	103.3		69.8	34.1	16.8	16.7	74.3	9.7	102.8	24.3	
LOS	C	F		E	C	B	B	E	A	F	C	
Approach Delay		94.4			36.4			46.8			67.9	
Approach LOS		F			D			D			E	
Queue Length 50th (ft)	22	~306		135	189	112	27	262	15	~325	198	
Queue Length 95th (ft)	47	#501		#272	271	174	51	#446	78	#531	292	
Internal Link Dist (ft)		238			297			294			247	
Turn Bay Length (ft)	100			115		85	75		50	95		
Base Capacity (vph)	323	424		254	598	760	330	447	537	489	798	
Starvation Cap Reductn	0	0		0	123	111	0	0	0	0	0	
Spillback Cap Reductn	0	9		0	0	0	0	0	23	173	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.17	1.07		0.94	0.65	0.57	0.27	0.94	0.46	1.68	0.53	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Timings

1: Wilcox Street & 5th Street

Total Traffic Volumes

Year 2041 - PM Peak Hour

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 57.9

Intersection LOS: E

Intersection Capacity Utilization 98.3%

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: 1: Wilcox Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
9 s	48 s	7 s	36 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
27 s	30 s	14 s	29 s

Timings
2: Perry Street & 5th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	828	62	97	636	30	74	339	145	113	386	156
Future Volume (vph)	163	828	62	97	636	30	74	339	145	113	386	156
Satd. Flow (prot)	1770	1863	1583	1770	3514	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.279			0.089			0.176			0.204		
Satd. Flow (perm)	520	1863	1583	166	3514	0	328	1863	1583	380	1863	1583
Satd. Flow (RTOR)			120		6				164			164
Lane Group Flow (vph)	177	900	67	105	724	0	80	368	158	123	420	170
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0		3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	11.0	11.0	8.0	11.0		8.0	11.0	11.0	8.0	11.0	11.0
Total Split (s)	13.0	55.0	55.0	8.0	50.0		8.0	29.0	29.0	8.0	29.0	29.0
Total Split (%)	13.0%	55.0%	55.0%	8.0%	50.0%		8.0%	29.0%	29.0%	8.0%	29.0%	29.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0		3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.0	2.0	1.0	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	0.0	0.0
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	6.0	6.0	4.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	None
Act Effct Green (s)	59.3	49.8	49.8	52.2	45.9		27.9	21.9	21.9	28.7	23.5	23.5
Actuated g/C Ratio	0.59	0.50	0.50	0.52	0.46		0.28	0.22	0.22	0.29	0.24	0.24
v/c Ratio	0.43	0.97	0.08	0.68	0.45		0.54	0.90	0.33	0.75	0.96	0.34
Control Delay	6.4	34.9	1.1	35.8	19.8		38.9	64.4	6.8	56.2	73.5	7.8
Queue Delay	0.0	41.3	0.0	0.0	0.0		0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	76.2	1.1	35.8	19.8		39.1	64.4	6.8	56.2	73.5	7.8
LOS	A	E	A	D	B		D	E	A	E	E	A
Approach Delay		61.0			21.8			46.1			54.9	
Approach LOS		E			C			D			D	
Queue Length 50th (ft)	39	599	0	27	165		35	226	0	56	268	3
Queue Length 95th (ft)	m39	m592	m0	#75	216		70	#383	47	#132	#461	56
Internal Link Dist (ft)		297			149			293			280	
Turn Bay Length (ft)	115		85	100			130		130	150		150
Base Capacity (vph)	424	927	847	155	1616		149	428	490	164	438	497
Starvation Cap Reductn	0	194	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		2	0	0	0	0	8
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.42	1.23	0.08	0.68	0.45		0.54	0.86	0.32	0.75	0.96	0.35

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 86 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Timings

2: Perry Street & 5th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 47.1

Intersection LOS: D

Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Perry Street & 5th Street

 Ø1	 Ø2 (R)	 Ø3	 Ø4
8 s	55 s	8 s	29 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	50 s	8 s	29 s

HCM 6th TWSC
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	6	34	6	6	53	21	599	27	36	560	65
Future Vol, veh/h	28	6	34	6	6	53	21	599	27	36	560	65
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	50	-	-	50	-	-	80	-	-	105	-	-
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	30	7	37	7	7	58	23	651	29	39	609	71

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1467	1449	645	1457	1470	666	680	0	0	680	0	0
Stage 1	723	723	-	712	712	-	-	-	-	-	-	-
Stage 2	744	726	-	745	758	-	-	-	-	-	-	-
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	60	75	*589	62	72	459	*881	-	-	912	-	-
Stage 1	511	454	-	423	436	-	-	-	-	-	-	-
Stage 2	407	430	-	487	427	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	46	70	*589	51	67	459	*881	-	-	912	-	-
Mov Cap-2 Maneuver	46	70	-	51	67	-	-	-	-	-	-	-
Stage 1	498	435	-	412	425	-	-	-	-	-	-	-
Stage 2	341	419	-	430	408	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	85.1		27		0.3		0.5	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 881	-	-	46	279	51	288	912	-	-
HCM Lane V/C Ratio	0.026	-	-	0.662	0.156	0.128	0.223	0.043	-	-
HCM Control Delay (s)	9.2	-	-	177.7	20.3	85.7	21	9.1	-	-
HCM Lane LOS	A	-	-	F	C	F	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.5	0.5	0.4	0.8	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th TWSC
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	13	43	7	7	40	28	495	20	32	519	15
Future Vol, veh/h	18	13	43	7	7	40	28	495	20	32	519	15
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	55	-	-	-	-	-	80	-	-	90	-	-
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	20	14	47	8	8	43	30	538	22	35	564	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1277	1262	572	1282	1259	549	580	0	0	560	0	0
Stage 1	642	642	-	609	609	-	-	-	-	-	-	-
Stage 2	635	620	-	673	650	-	-	-	-	-	-	-
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	109	127	*653	108	128	535	*977	-	-	1011	-	-
Stage 1	562	501	-	482	485	-	-	-	-	-	-	-
Stage 2	467	480	-	528	495	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	-	-	-	-	-	-
Mov Cap-1 Maneuver	91	119	*653	87	119	535	*977	-	-	1011	-	-
Mov Cap-2 Maneuver	91	119	-	87	119	-	-	-	-	-	-	-
Stage 1	545	484	-	467	470	-	-	-	-	-	-	-
Stage 2	409	465	-	459	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.7	23.6	0.5	0.5
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	*977	-	-	91	320	252	1011	-	-
HCM Lane V/C Ratio	0.031	-	-	0.215	0.19	0.233	0.034	-	-
HCM Control Delay (s)	8.8	-	-	55.1	18.9	23.6	8.7	-	-
HCM Lane LOS	A	-	-	F	C	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.7	0.9	0.1	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

HCM 6th Roundabout
5: Perry Street & 3rd Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	9.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	295	137	502	612
Demand Flow Rate, veh/h	300	140	512	624
Vehicles Circulating, veh/h	599	611	290	135
Vehicles Exiting, veh/h	160	191	609	616
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.1	7.1	9.6	8.9
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	300	140	512	624
Cap Entry Lane, veh/h	749	740	1027	1202
Entry HV Adj Factor	0.982	0.977	0.981	0.981
Flow Entry, veh/h	295	137	502	612
Cap Entry, veh/h	735	723	1007	1179
V/C Ratio	0.400	0.189	0.499	0.519
Control Delay, s/veh	10.1	7.1	9.6	8.9
LOS	B	A	A	A
95th %tile Queue, veh	2	1	3	3

APPENDIX D

Capacity Worksheets – 4th Street Roundabouts

HCM 6th Roundabout
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	6.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	40	51	462	615
Demand Flow Rate, veh/h	40	52	472	627
Vehicles Circulating, veh/h	594	466	89	18
Vehicles Exiting, veh/h	51	94	545	500
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.3	4.9	6.5	7.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	40	52	472	627
Cap Entry Lane, veh/h	753	858	1260	1355
Entry HV Adj Factor	0.997	0.980	0.980	0.980
Flow Entry, veh/h	40	51	462	615
Cap Entry, veh/h	750	841	1235	1328
V/C Ratio	0.053	0.061	0.375	0.463
Control Delay, s/veh	5.3	4.9	6.5	7.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	3

HCM 6th Roundabout
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	5.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	70	34	309	418
Demand Flow Rate, veh/h	71	34	315	426
Vehicles Circulating, veh/h	418	327	62	44
Vehicles Exiting, veh/h	52	50	427	317
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	4.0	5.0	5.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	71	34	315	426
Cap Entry Lane, veh/h	901	989	1295	1319
Entry HV Adj Factor	0.985	0.996	0.980	0.980
Flow Entry, veh/h	70	34	309	418
Cap Entry, veh/h	887	985	1269	1293
V/C Ratio	0.079	0.034	0.243	0.323
Control Delay, s/veh	4.8	4.0	5.0	5.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

HCM 6th Roundabout
3: Wilcox Street & 4th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	8.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	74	66	700	716
Demand Flow Rate, veh/h	76	67	714	730
Vehicles Circulating, veh/h	662	718	75	34
Vehicles Exiting, veh/h	102	71	663	751
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	6.6	9.2	8.8
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	67	714	730
Cap Entry Lane, veh/h	702	663	1278	1333
Entry HV Adj Factor	0.972	0.983	0.980	0.981
Flow Entry, veh/h	74	66	700	716
Cap Entry, veh/h	683	652	1253	1307
V/C Ratio	0.108	0.101	0.559	0.548
Control Delay, s/veh	6.5	6.6	9.2	8.8
LOS	A	A	A	A
95th %tile Queue, veh	0	0	4	3

HCM 6th Roundabout
4: Perry Street & 4th Street

Background Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	7.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	75	39	584	596
Demand Flow Rate, veh/h	76	40	596	607
Vehicles Circulating, veh/h	594	600	44	37
Vehicles Exiting, veh/h	50	40	626	603
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.9	5.5	7.3	7.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	40	596	607
Cap Entry Lane, veh/h	753	748	1319	1329
Entry HV Adj Factor	0.985	0.974	0.980	0.981
Flow Entry, veh/h	75	39	584	596
Cap Entry, veh/h	741	728	1293	1304
V/C Ratio	0.101	0.053	0.452	0.457
Control Delay, s/veh	5.9	5.5	7.3	7.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	2

HCM 6th Roundabout
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	6.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	40	51	463	616
Demand Flow Rate, veh/h	40	52	473	628
Vehicles Circulating, veh/h	595	466	90	18
Vehicles Exiting, veh/h	51	96	545	500
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.3	4.9	6.5	7.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	40	52	473	628
Cap Entry Lane, veh/h	752	858	1259	1355
Entry HV Adj Factor	0.997	0.980	0.980	0.980
Flow Entry, veh/h	40	51	463	616
Cap Entry, veh/h	750	841	1234	1328
V/C Ratio	0.053	0.061	0.376	0.464
Control Delay, s/veh	5.3	4.9	6.5	7.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	2	3

HCM 6th Roundabout
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2041 - AM Peak Hour

Intersection				
Intersection Delay, s/veh	5.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	73	36	309	421
Demand Flow Rate, veh/h	74	37	315	429
Vehicles Circulating, veh/h	422	327	68	45
Vehicles Exiting, veh/h	52	56	428	318
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.9	4.1	5.0	5.8
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	74	37	315	429
Cap Entry Lane, veh/h	897	989	1287	1318
Entry HV Adj Factor	0.985	0.969	0.980	0.980
Flow Entry, veh/h	73	36	309	421
Cap Entry, veh/h	883	958	1262	1292
V/C Ratio	0.082	0.037	0.245	0.326
Control Delay, s/veh	4.9	4.1	5.0	5.8
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

HCM 6th Roundabout
3: Wilcox Street & 4th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	8.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	74	72	703	719
Demand Flow Rate, veh/h	76	73	717	733
Vehicles Circulating, veh/h	668	718	78	37
Vehicles Exiting, veh/h	102	77	666	754
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	6.7	9.3	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	76	73	717	733
Cap Entry Lane, veh/h	698	663	1274	1329
Entry HV Adj Factor	0.972	0.984	0.980	0.981
Flow Entry, veh/h	74	72	703	719
Cap Entry, veh/h	679	653	1249	1303
V/C Ratio	0.109	0.110	0.563	0.552
Control Delay, s/veh	6.5	6.7	9.3	8.9
LOS	A	A	A	A
95th %tile Queue, veh	0	0	4	4

HCM 6th Roundabout
4: Perry Street & 4th Street

Total Traffic Volumes
Year 2041 - PM Peak Hour

Intersection				
Intersection Delay, s/veh	7.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	81	59	590	615
Demand Flow Rate, veh/h	82	60	602	627
Vehicles Circulating, veh/h	619	600	70	47
Vehicles Exiting, veh/h	55	72	631	613
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.2	5.7	7.7	7.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	82	60	602	627
Cap Entry Lane, veh/h	734	748	1285	1315
Entry HV Adj Factor	0.984	0.981	0.980	0.980
Flow Entry, veh/h	81	59	590	615
Cap Entry, veh/h	723	734	1260	1290
V/C Ratio	0.112	0.080	0.469	0.477
Control Delay, s/veh	6.2	5.7	7.7	7.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	3	3