STAHL SHEAFFER ENGINEERING

REPORT

GC&P Bethany Pike (WV 88) Mixed-Use Village Development Traffic Impact Study

Wheeling, Ohio County, West Virginia

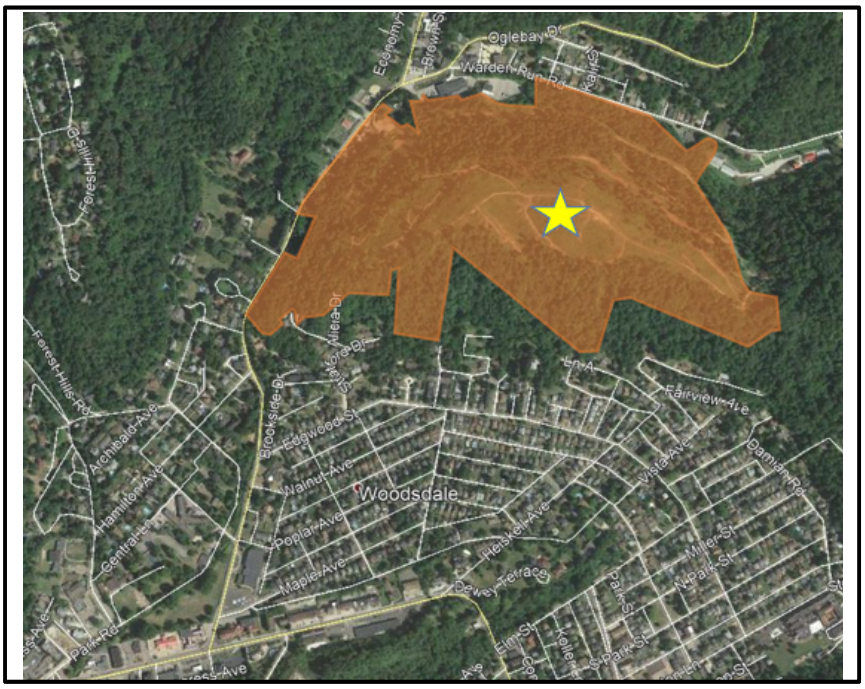

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Table of Contents

List of Tables

List of Figures

List of Appendices

A. Executive Summary

General Overview of the Project

GC&P Development LLC is currently planning a proposed community-scaled mixed-use development, called the GC&P Bethany Pike (WV 88) Mixed-Use Village, located north of the Woodsdale neighborhood, east of WV 88 (Bethany Pike) and south of Warden Run Road (CR 15), in the City of Wheeling, Ohio County, West Virginia. As part of the planning process, a traffic study has been prepared to identify potential traffic impacts resulting from the preliminary development program within the transportation study area, as in accordance to standard traffic engineering practices.

The preliminary development program for the site will include 997,900 square feet and will encompass a blend of residential, hotel, commercial, office, and entertainment components.

Access to the site is proposed via one (1) full-access driveway on Bethany Pike (WV 88) and one (1) full-access driveway on Warden Run Road (CR 15).

List of Study Intersections

- US Route 40 (National Road) and WV 88 (Bethany Pike) (Existing Signalized)
- WV 88 (Bethany Pike) and GC&P Road (CR 7) (Existing Unsignalized)
- US Route 40 (National Road) and Park Road / Leatherwood Lane (Existing Signalized)
- US Route 40 (National Road) and Mt. DeChantal Road / I-70 Off-Ramps (Existing Signalized)
- Mt. DeChantal Road and I-70 EB On-Ramp/Kroger's Driveway (Existing Unsignalized)
- Mt. DeChantal Road and Kroger's Driveway (Existing Signalized)
- US Route 40 (National Road) and I-70 WB On-Ramp (Existing Unsignalized)
- WV 88 (Bethany Pike) and Warden Run Road (CR 15) (Existing Unsignalized)
- WV 88 (Bethany Pike) and Proposed Site Driveway (Proposed Signalized)
- Warden Run Road and Proposed Site Driveway (Proposed Unsignalized)

General Trip Generation and Distribution

In order to forecast vehicle trips associated with this community-scale mixed-use village, a comparison of local Wheeling trip generation data from The Highlands development was compared to national trip generation standards, Institute of Transportation Engineers (ITE) *Trip Generation 10th Edition Supplement*.

The Highlands is an existing 2.77 million square foot mixed-use development located in Triadelphia, West Virginia, approximately 5 miles east of the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development. The location and development type provide a representative regional Wheeling market mixed-use development trip generator. Based on data contained in a reported completed by HDR Engineering Inc., dated June 19, 2018, for The Highlands, a regional Wheeling market mixed-use development weekday daily trip generation rate of 8.4858 trips per 1,000 SF, was determined. This trip generation rate was compared to the rate for Land Use 820, Shopping Center, presented in ITE *Trip Generation 10th Edition Supplement*. The data provided by ITE for Land Use 820, Shopping Center, reports a national

average weekday daily trip rate of 37.75 trips per 1,000 SF of GLA, which is approximately 4.4 times greater than the regional Wheeling market mixed-use development weekday daily trip generation rate determined from The Highlands data.

Additionally, The Highlands regional Wheeling trip rate was also compared to the forecasted weekday daily trip rate for the GC&P Mixed-Use Village Development utilizing ITE's *Trip Generation 10th Edition Supplement*. ITE estimates that the 997,900 SF GC&P Mixed-Use Village Development would generate 24,381 trips per day during a typical weekday, which results in a weekday daily site generated trip rate of 24.4323 trips per 1,000 SF of development. The proposed development, which is approximately one-third the size of The Highlands, was forecasted to generated approximately 3 times more weekday daily trips per 1,000 SF when compared to The Highlands regional trip rate.

A comparison of The Highlands regional Wheeling market mixed-use development data to ITE's national data utilized to forecast GC&P's site generated trips shows that GC&P's Mixed-Use Village preliminary development plan, which is approximately one-third the size of The Highlands, is forecasted to generate approximately 3 times more weekday daily trips per 1,000 SF. This comparison shows that the ITE national trip generation data is not an accurate representation of a local regional Wheeling market mixed-use development; therefore, the regional Wheeling market mixed-use development trip rate derived from The Highlands data was utilized and applied to the proposed 997,900 square foot GC&P Bethany Pike (WV 88) Mixed-Use Village Development.

The purpose of a traffic impact study is to provide the most accurate traffic forecast possible for a proposed development. In the absence of specific market derived data, ITE assumptions can be a useful substitute. However, the data derived from the Wheeling market was elected as the most accurate predictor of potential traffic generated by the proposed development.

Even though The Highlands trip generation data was selected as a more accurate trip generation predictor than ITE data, it is anticipated that the forecasted trip results will overstate the proposed project traffic impacts to the study area because of the lack of a local data source to make adjustments to the trips to reflect the limitations posed to the potential supply of vehicle trips due to community scale development type and community scale location.

The resultant anticipated trip generation of the proposed 997,900 square foot GC&P Bethany Pike (WV 88) Mixed-Use Village Development utilizing The Highlands data is presented in Table 3 and summarized below.

Trip Generation Summary GC&P Mixed-Use Village Development, 997,990 SF				
Weekday Daily Traffic	**Saturday Daily Traffic**	**Peak Hour Traffic**		
8,468	9,525	**AM Peak Hour**		
		Enter	**Exit**	**Total**
		261	109	370
		PM Peak Hour		
		Enter	**Exit**	**Total**
		337	447	784
		Saturday Peak Hour		
		Enter	**Exit**	**Total**
		404	351	755

The primary distribution of the forecasted site trips is based on a population gravity model utilizing data obtained from the United States Census Bureau's OnTheMap Version 6. OnTheMap is a web-based mapping and reporting application that shows where workers are employed and where they live. The OnTheMap data was used to determine where population live within a 15-minute travel radius of who works in the City of Wheeling. The gravity model is weighted based on an estimated maximum travel time distance, not to exceed a 15-minute travel time radius.

Mitigation Measures to be Completed Concurrent with Development

The results of the traffic analysis detailed in this study indicates that following mitigation measures should be completed concurrent with the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development.

On-Site Mitigation:

- WV 88 (Bethany Pike) and Proposed Site Driveway
    - Construct a full-access driveway providing two (2) lanes ingress and two (2) lanes egress. The proposed site driveway egress should accommodate an exclusive left turn lane and an exclusive right turn lane.
    - Widen the southbound WV 88 approach at the proposed site driveway access to accommodate an exclusive left turn lane and an exclusive through lane. The southbound left turn lane should provide a minimum of 275 feet of storage, exclusive of taper.
    - Widen the northbound WV 88 approach at the proposed site driveway access to provide an exclusive northbound right turn lane and an exclusive through lane. The northbound right turn lane should provide a minimum of 450 feet, exclusive of taper.
    - Install a fully actuated, uncoordinated, traffic signal at the WV 88 and proposed site driveway intersection. The signal should provide three (3) phases, a protected/permitted left turn phase for the southbound WV 88 approach with a westbound right turn overlap phase, a permissive northbound/southbound phase for WV 88, and a protected westbound phase for the proposed site driveway.
- Warden Run Road (CR 15) and Proposed Site Driveway
    - Construct a full-access driveway provided one (1) lane ingress and one (1) lane egress. The proposed site driveway northbound egress approach should accommodate both left and right turns.
    - Install a stop sign on the northbound site driveway approach.

Off-Site Mitigations:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.
    - Lengthen the existing southbound right turn lane to provide a minimum of 475 feet of storage, exclusive of taper.
    - Install pedestrian push-button actuation at all existing pedestrian crossing locations.
- US Route 40 (National Road) and Park Avenue / Leatherwood Lane
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.

  - Install pedestrian push-button actuation at all existing pedestrian crossing locations.
- US Route 40 (National Road) and Mt. DeChantal Road / I-70 Off-Ramps
  - Optimize signal timing splits and offsets.
- Mt. DeChantal Road and Kroger's Driveway
  - Optimize signal timing splits and offsets.

Summary Conclusion

As detailed in the study results of capacity analysis show that the study intersections can maintain or even improve pre-development (no-build) conditions with implementation of the proposed on-site and off-site mitigation, except at the intersection of US Route 40 and WV 88/Altenheim Avenue. The intersection of US Route 40 and WV 88 (Bethany Pike)/Altenheim Avenue experiences the greatest impacts due to the proposed development. Implementation of the recommended timing optimizations are anticipated to improve operations and maintain pre-development (no-build) conditions for the weekday AM and Saturday peak hours; however, the weekday PM peak hour is anticipated to experience marginal increases in delay.

It can be anticipated that projected traffic volumes will be overstated at the intersection of US Route 40 and WV 88 (Bethany Pike)/Altenheim Avenue due to the proposed development. The proposed community-scaled mixed-use development is anticipated to attract existing local residents. Currently, local residents utilize the US Route 40 corridor and I-70 to access their household needs. However, the proposed community-scaled mixed-use development will provide the household needs for these local residents, thus reducing the volume of traffic originally destined outside the study area via US Route 40 and I-70. Therefore, this change in land use on the WV 88 (Bethany Pike) corridor would benefit from a more balance mix of land uses, rather than the residential only pattern which has evolved in this corridor over time and assist in the mitigation of traffic in the WV 88 (Bethany Pike) and US Route 40 corridors.

In addition, utilization of The Highlands regional Wheeling market mixed-use development data does allow the traffic model developed for this study to reflect the Wheeling market, but on a much larger super-regional commercial scale. The Highlands is reflective of a regional retail power center, meaning that the center contains category-dominant anchors and is adjacent to a highly visible roadway, Interstate 70. The proposed GC&P WV 88 (Bethany Pike) Mixed-Use Village Development is community-scaled, accommodating community scale needs, and is adjacent to WV 88 (Bethany Pike), a principal arterial roadway. It is anticipated that the site generated traffic for the proposed development would be furthered reduced based on the location and community-scaled services are proposed to be provided. Even though The Highlands trip generation data was selected as a more accurate trip generation predictor than ITE data, it is anticipated that the forecasted trip results will overstate the proposed project traffic impacts to the study area because of the lack of a local data source to make adjustments to the trips to reflect the limitations posed to the potential supply of vehicle trips due to community scale development type and community scale location.

Lastly, it is anticipated that traffic volumes will increase throughout the study area due to events at Oglebay Resort and Conference Center. For instance, Oglebay Resort and Conference Center holds an annual event during the holiday season, the Festival of Lights, which occurs from mid-November through mid-January. The Festival of Lights attracts over one million visitors each year. Additional major events at Oglebay Resort and Conference Center includes the Spring Flower and Garden Show, Fourth of July Celebrations, and Octoberfest. However, at the time the traffic counts were completed, no major events were scheduled to occur.

Therefore, based on the information detailed above, it is anticipated that the analysis results presented in the study are highly conservative and implementation of the proposed mitigation measures would accommodate site traffic generated by the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development.

B. Introduction

Stahl Sheaffer Engineering, LLC (Stahl Sheaffer) has completed a transportation impact study (TIS) for the GC&P Bethany Pike (WV 88) Mixed-Use Village Development, located north of the Woodsdale neighborhood, bounded by WV 88 (Bethany Pike) to the west and Warden Run Road to the north in the City of Wheeling, Ohio County, West Virginia. The purpose of this report is to identify potential traffic impacts resulting from the preliminary development program within the transportation study area.

C. Project Description

Preliminary Development Program

As shown in Figure 1, the site is located north of the Woodsdale neighborhood, east of WV 88 (Bethany Pike) and south of Warden Run Road (CR 15), in the City of Wheeling, Ohio County, West Virginia. The preliminary development program for the site will encompass a blend of residential, hotel, commercial, office, and entertainment components .

For purposes of this study, the preliminary development program is anticipated to be fully built out by year 2030 and is proposed to include a total of 997,900 square feet (SF) of community-scaled mixed-use development space. A breakdown of the preliminary development program is summarized below.

GC&P Mixed-Use Village Preliminary Development Program		
Development Component Category	**Size**	**Potential Component(s) Per Category**
Residential	132,000 SF	Townhomes
Hotel	62,400 SF	Hotel
Entertainment/Recreational	88,500 SF	Fitness Center, Bowling Alley, Movie Theater
Office	490,000 SF	Office Space, Institutional Space
Retail	225,000 SF	Specialty Retail, Restaurant(s), Coffee Shop, Grocery Store, Pharmacy Store
TOTAL GC&P MIXED-USE VILLAGE	997,900 SF	--

Access to the site is proposed via one (1) full-access driveway on Bethany Pike (WV 88) and one (1) full-access driveway on Warden Run Road (CR 15).

The preliminary development program conceptual plan for the GC&P Bethany Pike (WV 88) Mixed-Use Village is presented in Figure 2.

Study Intersections

A scope of study was developed through discussions with representatives of the West Virginia Division of Highways (WVDOH) Traffic Engineering Department held on Thursday, January 16, 2020. Based on these discussions, the following intersections were selected for study per direction received from WVDOH:

- US Route 40 (National Road) and WV 88 (Bethany Pike) (Existing Signalized)

- WV 88 (Bethany Pike) and GC&P Road (CR 7) (Existing Unsignalized)
- US Route 40 (National Road) and Park Road / Leatherwood Drive (Existing Signalized)
- US Route 40 (National Road) and Mt. DeChantal Road / I-70 Off-Ramp (Existing Signalized)
- Mt. DeChantal Road and I-70 EB On-Ramp/Kroger's Driveway (Existing Unsignalized)
- Mt. DeChantal Road and Kroger's Driveway (Existing Signalized)
- US Route 40 (National Road) and I-70 WB On-Ramp (Existing Unsignalized)
- WV 88 (Bethany Pike) and Warden Run Road (CR 15) (Existing Unsignalized)
- WV 88 (Bethany Pike) and Proposed Site Driveway (Proposed Signalized)
- Warden Run Road and Proposed Site Driveway (Proposed Unsignalized)

The study intersections and existing roadway configurations are illustrated in Figure 3. A copy of the TIS Scope of Study approved by WDOH is included in the Appendix to this report.

D. Data Collection

Existing Roadway System

In order to better understand the study intersections and roadways, a field reconnaissance of the study area was conducted. Information obtained at each study intersections during from this field review included information on roadway widths, roadway grades, lane configurations, traffic control and posted speed limits.

The transportation study area is serviced by public transit from the Ohio Valley/Eastern Ohio Regional Transportation Authority (OVRTA and EORTA). A total of two (2) public transit routes are serviced by OVRTA within the study area; the Elm Grove/Highlands Route and the Mt. DeChantal Route. Both routes traverses US Route 40 and or WV 88, within the transportation study area.

The transportation study area encompasses the following roadways:

- **Interstate 70 (I-70) -** I-70 is a major east-west Interstate that is part of the US Interstate system spanning over 2,100 miles from Utah to Maryland. Access to I-70 occurs along Mt. DeChantal Road and US Route 40 within the study area.
- **US Route 40 (National Road) –** US Route 40 is a major east-west route that is part of the US Highway system, which stretches just over 2,200 miles, between Utah and New Jersey. US Route 40 is classified as a principal arterial west of WV 88 and a minor arterial east of WV 88. Within the vicinity of the study area, US Route 40 provides two-lanes of travel in both the east-west direction with a two-way center left turn lane. .
- **WV 88 (Bethany Pike) -** WV 88 is a West Virginia State Route providing one-lane of travel in both the north-south directions and is classified as a principal arterial within the study area.
- **GC&P Road (CR 7) -** GC&P Road is a County Route providing one-lane of travel in both the north-south directions and is classified as a major collector within the study area.

- **Mt. DeChantal Road -** Mt. DeChantal Road is a principal arterial that provides a north-south connection between I-70 and US Route 40.
- **Warden Run Road (CR 15) -** Warden Run Road is a County Route providing one lane of travel in both the east-west directions and is classified as a major collector within the study area.

The following provides a description of the intersections selected for study within the transportation study area.

US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue – At the intersection of US Route 40 and WV 88/Altenheim Avenue, the eastbound US Route 40 approach provides two (2) lanes, an exclusive left turn lane and a shared through/right turn lane. The westbound US Route 40 approach provides two (2) lanes, a shared left turn/through lane and a shared through/right turn lane. The northbound Altenheim Avenue approach provides a single lane of travel for all left turn, through and right turn movements. The southbound WV 88 approach provides two (2) lanes, a shared left turn/through lane and an exclusive right turn lane. This intersection is controlled by an actuated-coordinated signal within the coordinated US Route 40 signal system. The signal operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours. The posted speed limit on US Route 40 is 35 miles per hour (mph), the posted speed limit on WV 88 is 30 mph, and the posted speed limit on Altenheim Avenue is 25 mph.

WV 88 (Bethany Pike) and GC&P Road (CR 7)/Church Driveway – At the intersection of WV 88 and GC&P Road, the eastbound WV 88 approach provides two (2) lanes, a left turn lane and a shared through/right turn lane. The exclusive eastbound left turn lane provides 130-feet of vehicular storage. The westbound WV 88 approach provides one (1) lane for all applicable movements. The southbound GC&P Road approach provides one (1) lane for all applicable movements. The northbound Church Driveway approach provides one (1) lane for all applicable movements. This intersection operates as two-way stop controlled, with a stop sign on the northbound and southbound approaches. The posted speed limit on WV 88 is 30 mph, the posted speed limit on GC&P Road is 25 mph and there is no posted speed limit in the Church Driveway.

US Route 40 (National Road) and Park Road/TJ's Driveway - At the intersection of US Route 40 and Park Road/TJ's Driveway, the eastbound US Route 40 approach provides three (3) lanes, an exclusive left turn lane, an exclusive through lane, and a shared through/right turn lane. The exclusive left turn lane provides 150-feet of vehicular storage. The westbound US Route 40 approach provides three (3) lanes, an exclusive left turn lane, which is part of the two-way center left turning lane, an exclusive through lane, and a shared through/right turn lane. The exclusive left turn lane provides approximately 60-feet of storage. The southbound Park Road approach has two (2) lanes, a shared left turn and through lane and an exclusive channelized right turn lane. The TJ's Driveway northbound approach has one (1) lane for all applicable movements. The intersection of US Route 40 and Park Road/TJ's Driveway is controlled through an actuated-coordinated traffic signal and is the master controller within the coordinated US Route 40 signal system. This intersection traffic signal also controls the signal at the intersection of US Route 40 and Leatherwood Lane/gas station driveway, operating as a clustered intersection traffic signal control. The intersection operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours. The posted speed limit on US Route 40 is 35 mph, the posted speed limit on Park Road is 25 mph, and there is no posted speed limit on TJ's driveway.

US Route 40 (National Road) and Leatherwood Lane/Gas Station Driveway – At the intersection of US Route 40 and Leatherwood Lane/Gas Station Driveway, the eastbound US Route 40 approach provides two (2) lanes, one (1) shared left turn/through lane and one (1) shared through/right turn lane. The westbound US Route 40 approach provides three (3) lanes, one (1) exclusive left turn lane, one (1) exclusive through lane and one (1) shared through/right turn lane. The exclusive left turn lane provides 105-feet of vehicle storage. The northbound Leatherwood Lane approach provides one (1) lane for all applicable movements. The southbound Gas Station Driveway approach provides one (1) lane for applicable movements. The intersection is controlled by the actuated-coordinated traffic signal controller at the intersection US Route 40 and Park Road. The intersection operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours. The posted speed limit on US Route 40 is 35 mph, the posted speed limit on Leatherwood Lane is 25 mph, and there is no posted speed limit for the Gas Station Driveway.

US Route 40 (National Road) and Mt. DeChantal Road – At the intersection of US Route 40 and Mt. DeChantal Road, the eastbound US Route 40 approach provides two (2) lanes, one exclusive through lane and one shared through/right turn lane. The westbound US Route 40 approach provides three (3) lanes, one exclusive left turn lane and dual through lanes. The northbound Mt. DeChantal Road approach provides dual left turn lanes and dual channelized right turn lanes. The intersection of US Route 40 and Mt. DeChantal Road is controlled through an actuated-coordinated traffic signal within the coordinated US Route 40 signal system. This intersections traffic signal also controls the signal at the intersection of Mt. DeChantal Road and I-70 EB Off-Ramps, operating as a clustered intersection traffic signal control. The intersection operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours . The posted speed limit on US Route 40 is 35 mph and the posted speed limit on Mt. DeChantal Road is 25 mph.

Mt. DeChantal Road and I-70 EB Off-Ramp – At the intersection of Mt. DeChantal Road and the I-70 EB Off-Ramp, the northbound Mt. DeChantal approach provides two (2) lanes, an exclusive through lane and a shared through/right turn lane. The southbound Mt. DeChantal approach provides one (1) exclusive through lane. The eastbound I-70 EB Off-Ramp approach provides two (2) lanes, a shared left turn/through lane and a shared through/right turn lane. The intersection is controlled by the actuated-coordinated traffic signal controller at the intersection of US Route 40 and Mt. DeChantal Road. The intersection operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours. The posted speed limit on Mt. DeChantal Road is 25 mph and the posted speed limit on the I-70 EB Off-Ramp is 35 mph.

Mt. DeChantal Road and I-70 EB On-Ramp /Kroger's Driveway – At the intersection of Mt. DeChantal Road and I-70 EB On-Ramp/Kroger's Driveway the westbound Kroger's Driveway approach has two (2) lanes, one exclusive left turn lane and one exclusive channelized right turn lane. The two lanes are separated by a median with the left turn lane operating as stop controlled and the right turn lane operating as yield controlled. The northbound Mt. DeChantal Road approach provides two (2) lanes, one (1) exclusive left turn lane and one (1) exclusive through lane. The exclusive left turn lane provides 170-feet of vehicular storage. The southbound Mt. DeChantal Road approach provides one (1) lane for the through and right turn movements. The intersection operates as two-way stop controlled, with a stop sign on the westbound Kroger's Driveway approach. The posted speed limit on Mt. DeChantal Road is 25 mph and there is no posted speed limit on the Kroger's Driveway.

Mt. DeChantal Road and Kroger's Driveway – At the intersection of Mt. DeChantal Road and Kroger's Driveway the westbound Kroger's Driveway approach provides two (2) lanes, one (1) exclusive left turn lane and one (1) exclusive right turn lane. The exclusive right turn lane provides 80-feet of vehicular storage. The northbound Mt. DeChantal Road approach provides two (2) lanes, one (1) exclusive through lane and one (1) exclusive right turn lane. The exclusive right turn lane provides 120-feet of vehicular storage. The southbound Mt. DeChantal Road approach provides two (2) lanes, one (1) exclusive left turn lane and one (1) exclusive through lane. The exclusive left turn lane provides 210-feet of vehicular storage. The intersection operates as an actuated-coordinated signal as part of the coordinated US Route 40 signal system. The intersection operates at a 95 second cycle length during the AM peak hour and a 115 second cycle length during the PM and Saturday peak hours. The posted speed limit on Mt. DeChantal Road is 25 mph and there is no posted speed limit on Kroger's Driveway.

US Route 40 (National Road) and I-70 WB On-Ramp – At the intersection of US Route 40 and the I-70 WB On-Ramp, the eastbound US Route 40 approach provides two (2) lanes, one (1) exclusive through lane and one (1) shared through and right turn lane. The westbound US Route 40 approach provides two (2) lanes, one (1) shared left turn/through lane and one (1) exclusive through lane. There is no traffic control at this intersection; however, all westbound left turns onto the I-70 ramp must yield to oncoming traffic. The posted speed limit on US Route 40 is 35 mph.

WV 88 (Bethany Pike/Oglebay Drive) and Warden Run Road (CR 15) – At the intersection of WV 88 and Warden Run Road the north eastbound WV 88 approach provides one (1) lane for the shared through/right turn movements. The westbound Warden Run Road approach provides one (1) lane for the shared left turn/right turn movements. The south westbound Oglebay Drive approach provides one (1) lane for the shared left turn/ through movements. The intersection operates as two-way stop controlled, with a stop sign at the westbound Warden Run Road approach. The posted speed limit on WV 88 is 30 mph and the posted speed limit on Warden Run Road is 30 mph.

Photographs of the study roadways and intersections, along with copies of the traffic signal permit drawings for the signalized study intersection and sketches of the unsignalized intersection have been included in the Appendix to this report.

Turning Movement Counts

Manual turning movement counts were performed by Tri-State Traffic Data, a traffic data collection firm, at each existing study intersection from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM on Friday, January 24, 2020 and from 11:00 AM to 2:00 PM on Saturday, January 25, 2020. The turning movement counts were performed while local schools and universities were in session and were completed prior to the I-70 construction project. In addition, no major events were scheduled to occur at Oglebay Resort and Conference Center at the time the turning movement counts were completed. The turning movement counts include tabulations of typical vehicles (passenger vehicles), heavy vehicles (trucks and buses), bicycles and pedestrians crossing each approach to the study intersections. The 2020 existing peak hour traffic volumes determined form these counts utilized the peak hour of each intersection for the weekday AM peak hour, weekday PM peak hour and Saturday peak hour.

Upon review of the turning movement counts, illegal movements were recorded at the intersection of Mt. DeChantal Road and the I-70 EB On-Ramp/Kroger's Driveway on the westbound approach. The westbound Kroger's Driveway approach only permits left turns and right turns onto Mt. DeChantal Road and prohibits the through movement onto the I-70 eastbound on-ramp. However, this westbound through movement was observed to occur, resulting in 9 illegal

through movements during the weekday AM peak hour, 21 illegal through movements during the weekday PM peak hour, and 26 illegal through movements during the Saturday peak hour. These illegal westbound through movements were rerouted to turn right onto Mt. DeChantal at Kroger's Driveway signalized intersection and then turn left from Mt. DeChantal Road onto the I-70 eastbound on-ramp. In addition, utilization of the peak hour traffic volumes per intersection resulted in peak hour traffic volumes between various intersections to not balance. Therefore, existing traffic volumes were balanced between intersections where applicable.

The resultant 2020 existing conditions peak hour traffic volumes determined from the turning movement counts with the adjustments detailed are presented in Figure 4. In addition, the 2020 existing conditions peak hour pedestrian volumes determined from the turning movement counts are presented in Figure 5.

Summaries of the data collected during the turning movement counts at each of the study intersections, as well as the existing peak hour traffic volume development are included in the Appendix to this report.

Automatic Traffic Recorder Count Data

Automatic traffic recorder (ATR) count data was obtained from the most recent available West Virginia Division of Highways (WVDOH) data within the study area. WVDOH ATR data included approaches to the east and to the north of US Route 40 (National Road) and WV 88 (Bethany Pike) intersection. The WVDOH ATR counts conducted on WV 88, north of US Route 40, were completed from Monday, July 21, 2014 through Wednesday, July 23, 2014. The WVDOH ATR counts conducted on US Route 40, east of WV 88, were completed from Tuesday, July 11, 2017 through Wednesday, July 12th, 2017. A summary of the WVDOH ATR data is as follows:

Roadway	Direction of Travel	Traffic Volumes (vpd)
US Route 40	Eastbound	5,885
	Westbound	5,239
	Combined	11,124
WV 88	Northbound	6,807
	Southbound	6,900
	Combined	13,707

ATR count data and spreadsheets are provided in Appendix to this report.

E. 2020 Existing Conditions

2020 Existing Conditions Capacity Analysis

Capacity analyses were performed for each study intersection using the existing 2020 traffic volumes, as shown in Figure 4, and existing intersection operations for the weekday AM, weekday PM, and Saturday peak hours. The analysis was performed using Synchro Signal Timing and Analysis Software (Version 10.3, Build 122, Revision 0). The capacity/level of service (LOS) analysis results reported in this study were based on methodologies published in the *Highway Capacity Manual 6th Edition*, by the Transportation Research Board (HCM 6th Edition), where applicable. Signalized intersections

that do not adhere to the standard NEMA phasing, such as two (2) intersections operating under one controller (clustered intersections), or intersections with exclusive pedestrian phases, utilized Synchro percentile delay results to determine the level of service results. Both capacity analysis methodology determines how well an intersection, approach to an intersection, or movement at an intersection operates, and assigns to it a level of service (LOS) A through F, with LOS A representing the best operating conditions and LOS F, the worst. Detailed definitions of LOS have been included in the Appendix to this report.

The results of the capacity calculations performed for the existing conditions of the transportation study area are summarized in Table 1.

The 2020 existing conditions capacity analyses revealed that all movements, approaches and overall intersection operate at a LOS D or better, except for the following:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - Northbound Altenheim Avenue approach operates at a LOS F (156.8 seconds of delay) during the weekday AM peak hour and at a LOS F (100.3 seconds of delay) during the weekday PM peak hour.
    - Southbound WV 88 through and left turn movements operate at a LOS E (58.5 seconds of delay) during the Saturday peak hour.
- WV 88 (Bethany Pike) and GC&P Road (CR 7)/Church Driveway
    - Northbound Church Driveway approach operates at a LOS E (43.4 seconds of delay) during the weekday PM peak hour.
- US Route 40 (National Road) and Leatherwood Lane/Gas Station Driveway
    - Northbound Leatherwood Lane approach operates at a LOS E (58.9 seconds of delay) during the Saturday peak hour.
- US Route 40 (National Road) and Mt. DeChantal Road
    - Westbound US Route 40 left turn lane operates at a LOS E (65.6 seconds of delay) during the weekday PM peak hour.
- Mt. DeChantal Road and I-70 EB Off-Ramp
    - Eastbound I-70 EB Off-Ramp approach operates at a LOS E (56.4 seconds of delay) during the weekday PM peak hour.
- Mt. DeChantal Road and Kroger's Driveway
    - Westbound Kroger's Driveway right turn lane operates at a LOS E (62.6 seconds of delay) during the weekday AM peak hour, at a LOS E (69.9 seconds of delay) during the weekday PM peak hour and at a LOS E (68.9 seconds of delay) during the Saturday peak hour.

- Westbound Kroger's Driveway approach operates at a LOS E (61.0 seconds of delay) during the weekday AM peak hour, at a LOS E (68.3 seconds of delay) during the weekday PM peak hour and at a LOS E (67.8 seconds of delay) during the Saturday peak hour.

The 2020 existing conditions weekday AM, weekday PM, and Saturday peak hour levels of service are summarized on Figures 6, 7, and 8, respectively.

The Synchro printouts are included in the Appendix to this report.

2020 Existing Conditions Queue Analysis

Traffic volumes at the study intersections were used to perform queuing analyses for each approach/lane group for the weekday AM, weekday PM, and Saturday peak hour for the 2020 existing conditions. Synchro was utilized for the queue analyses and the 95th percentile queue length results are reported in Table 2. Based on the results of the analysis, the following queues are anticipated to extend beyond their available storage:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
  - The northbound Altenheim Avenue shared left turn/through/right turn movement is forecasted to queue beyond its available queue capacity during the weekday AM and weekday PM peak hours.

All other queues are contained within their available storage. Copies of the queuing analyses performed for the 2020 existing conditions are included in the Appendix to this report.

F. Site Traffic Generation and Distribution

Vehicular Trip Generation

The GC&P Bethany Pike (WV 88) Mixed-Use Village preliminary development program concept plan entails a blend of residential, hotel, commercial, office, and entertainment components. In order to forecast vehicle trips associated with this community-scale mixed-use village, a comparison of local Wheeling trip generation data from The Highlands development was compared to national trip generation standards, Institute of Transportation Engineers (ITE) *Trip Generation 10th Edition Supplement*.

The Highlands is an existing mixed-use development located in Triadelphia, West Virginia, approximately 5 miles east of the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development. The location and development type provide a representative regional Wheeling market mixed-use development trip generator. The Highlands includes approximately 2.77 million square feet of mixed-use development space, which includes major retailers, such as Cabela's, Target, Wal-Mart, and Kohl's, numerous restaurants, a movie theater, office space, and various other services. A report completed by HDR Engineering, Inc., dated June 19, 2018, documented traffic data collected at The Highlands along Cabela Drive in March 2018 and April 2018. This report indicates that 23,500 vehicles per day were observed on Cabela Drive at The Highlands entrance. Based on the existing daily traffic volume and size of The Highlands, a regional Wheeling market mixed-use development weekday daily trip generation rate, trips per 1,000 SF, was determined. The

Highlands was estimated to generate approximately 8.4858 weekday daily trips per 1,000 SF of development. A summary of The Highlands data is presented below.

Development	Size (Sq. Ft.)	Weekday Daily Site Generated Traffic (Trips Per Day)[1]	Weekday Daily Site Generated Trip Rate (Trips Per 1,000 SF)
The Highlands	2,769,331	23,500	8.4858

(1) Daily site generated traffic obtained from daily count data summarized in *The Highlands Multiple Project Agreement; Task Order #6, Traffic Data Collection Letter Report* prepared by HDR Engineering, Inc., dated June 19, 2018.

The Highlands weekday daily site generated trip rate of 8.4858 trips per 1,000 SF of development was compared to the rate for Land Use 820, Shopping Center, presented in ITE *Trip Generation 10th Edition Supplement*. The data provided by ITE for Land Use 820, Shopping Center, reports a national average weekday daily trip rate of 37.75 trips per 1,000 SF of GLA, which is approximately 4.4 times greater than the regional Wheeling market mixed-use development weekday daily trip generation rate determined from The Highlands data.

The weekday daily site generated trip rate for The Highlands was then compared to the forecasted weekday daily trip rate for the GC&P Mixed-Use Village Development utilizing ITE's *Trip Generation 10th Edition Supplement*. ITE forecasts that the 997,900 SF GC&P Mixed-Use Village Development would generate 24,381 trips per day during a typical weekday. This results in a weekday daily site generated trip rate of 24.4323 trips per 1,000 SF of development.

A comparison of The Highlands regional Wheeling market mixed-use development data to ITE's national data utilized to forecast GC&P's site generated trips shows that GC&P's Mixed-Use Village preliminary development plan, which is approximately one-third the size of The Highlands, is forecasted to generate approximately 3 times more weekday daily trips per 1,000 SF. A comparison summary The Highlands data and GC&P data utilizing ITE, is presented below.

Development	Source	Size (Sq. Ft.)	Weekday Daily Site Generated Traffic (Trips Per Day)[1]	Weekday Daily Site Generated Trip Rate (Trips Per 1,000 SF)
The Highlands	Locally Collected Data[1]	2,769,331	23,500	8.4858
GC&P	ITE[2]	997,900	24,381	24.4323
Percent Difference (Between GC&P and The Highlands)		**-64.0%**	**3.7%**	**187.9%**

This comparison shows that the ITE national trip generation data is not an accurate representation of a local regional Wheeling market mixed-use development; therefore, the regional Wheeling market mixed-use development trip rate derived from The Highlands data was utilized and applied to the proposed 997,900 square foot GC&P Bethany Pike (WV 88) Mixed-Use Village Development.

The purpose of a traffic impact study is to provide the most accurate traffic forecast possible for a proposed development. In the absence of specific market derived data, ITE assumptions can be a useful substitute. However, the data derived from the Wheeling market was elected as the most accurate predictor of potential traffic generated by the proposed development.

Even though The Highlands trip generation data was selected as a more accurate trip generation predictor than ITE data, it is anticipated that the forecasted trip results will overstate the proposed project traffic impacts to the study

area because of the lack of a local data source to make adjustments to the trips to reflect the limitations posed to the potential supply of vehicle trips due to community scale development type and community scale location.

The resultant anticipated trip generation of the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development utilizing The Highlands data is presented in Table 3 and summarized below.

Trip Generation Summary GC&P Mixed-Use Village Development, 997,990 SF				
Weekday Daily Traffic	**Saturday Daily Traffic**	**Peak Hour Traffic**		
8,468	9,525	**AM Peak Hour**		
		Enter	**Exit**	**Total**
		261	109	370
		PM Peak Hour		
		Enter	**Exit**	**Total**
		337	447	784
		Saturday Peak Hour		
		Enter	**Exit**	**Total**
		404	351	755

Detailed trip generation calculations are included in the Appendix to this report.

Vehicular Trip Distribution

The primary trip distribution is based on a population gravity model utilizing data obtained from the United States Census Bureau's OnTheMap Version 6. OnTheMap is a web-based mapping and reporting application that shows where workers are employed and where they live. The City of Wheeling was selected as the centroid for the OnTheMap data to determine where population live within a 15-minute travel radius of who works in the City of Wheeling, for determination of the forecasted primary trip distribution.

The 15-minute travel radius encompassed all census tracts within Ohio County, West Virginia and various census tracks within Marshall County, West Virginia and Belmont County, Ohio. Each census tract identified was assigned a primary travel route into the study area, based on the study area roadways. The gravity model was then applied to the census tract population results from OnTheMap and the average travel time from each census tract to the proposed development. The results the gravity model distribution identified the following primary distributions:

Travel Route (To/From)	Commercial/Office/Entertainment Primary Distribution
I -70 West	20%
I-70 East	5%
US Route 40 West	9%
US Route 40 East	48%
Mt. DeChantal Road	6%
GC&P Road North	3%
Warden Run Road East	5%
Bethany Pike East	4%
Total	100%

The primary trip distribution based on the gravity model for the proposed development is shown in Figure 9.

The primary distribution was applied to the forecasted site generated traffic summarized Table 3. The resultant forecasted GC&P Bethany Pike (WV 88) Mixed-Use Development site generated trips are shown in Figure 10. Detailed trip distribution calculations are included in the Appendix to this report.

G. 2030 Without Development (No Build) Conditions

Construction of the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development is anticipated to reach full build-out in approximately 10 years, year 2030, and the build-out is anticipated to occur over multiple phases. However, for purposes of this study, only the full build-out of the development, year 2030, has been evaluated. Therefore, traffic volumes were projected for the study intersections for year of full build-out 2030 conditions.

2030 Without Development (No Build) Traffic Volumes Projections

The forecasted year 2030 without development (no build) traffic volumes for the weekday AM, weekday PM and Saturday peak hours were determined by applying a 1.337% per year background traffic growth rate to the 2020 existing peak hour traffic volumes. The background traffic growth rate was obtained from WVDOH Planning Division. The resultant 2030 without development (no build) traffic volumes for the weekday AM, weekday PM and Saturday peak hours are presented in Figure 11.

2030 Without Development (No Build) Capacity Analysis

Capacity calculations were performed for the existing study intersections for the 2030 without development (no build) traffic volumes for the weekday AM, weekday PM and Saturday peak hours. The 2030 without development capacity analysis utilized the existing operating conditions, as previously detailed, at the existing study intersections. The results of the capacity calculations performed for the 2030 without development (no build) traffic volumes are summarized in Table 1 for the weekday AM, weekday PM and Saturday peak hours.

The 2030 without development (no build) conditions capacity analyses revealed that all movements, approaches and overall intersection operate at a LOS D or better, except for the following:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - Northbound Altenheim Avenue approach is forecasted to operate at a LOS F (258.9 seconds of delay) during the weekday AM peak hour and at a LOS F (160.5 seconds of delay) during the weekday PM peak hour.
    - Southbound WV 88 through and left turn movements are forecasted to operate at a LOS E (60.9 seconds of delay) during the Saturday peak hour.
    - The intersection of US Route 40 and WV 88 is forecasted to operate at a LOS E (61.3 seconds of delay) during the weekday AM peak hour.

- WV 88 (Bethany Pike) and GC&P Road (CR 7)/Church Driveway
    - Northbound Church Driveway approach is forecasted to operate at a LOS F (60.5 seconds of delay) during the weekday PM peak hour.
- US Route 40 (National Road) and Leatherwood Lane/Gas Station Driveway
    - Westbound US Route 40 through and right turn movements are forecasted to operate at a LOS F (76.1 seconds of delay) during the weekday AM peak hour.
    - Westbound US Route 40 approach is forecasted to operate at a LOS E (74.1 seconds of delay) during the weekday AM peak hour.
    - Westbound US Route 40 left turn movement is forecasted to operate at a LOS E (65.8 seconds of delay) during the weekday PM peak hour.
    - Northbound Leatherwood Lane approach is forecasted to operate at a LOS E (62.9 seconds of delay) during the Saturday peak hour.
- US Route 40 (National Road) and Mt. DeChantal Road
    - Westbound US Route 40 left turn movement is forecasted to operate at a LOS F (106.0 seconds of delay) during the weekday PM peak hour.
    - Westbound US Route 40 approach is forecasted to operate at a LOS E (63.9 seconds of delay) during the weekday PM peak hour.
- Mt. DeChantal Road and I-70 EB Off-Ramp
    - Eastbound I-70 EB Off-Ramp approach is forecasted to operate at a LOS E (59.0 seconds of delay) during the weekday AM peak hour and at a LOS E (77.9 seconds of delay) during the weekday PM peak hour.
- Mt. DeChantal Road and Kroger's Driveway
    - Westbound Kroger's Driveway right turn lane is forecasted to operate at a LOS E (62.6 seconds of delay) during the weekday AM peak hour, at a LOS E (69.9 seconds of delay) during the weekday PM peak hour and at a LOS E (68.9 seconds of delay) during the Saturday peak hour.
    - Westbound Kroger's Driveway approach operates at a LOS E (61.0 seconds of delay) during the weekday AM peak hour, at a LOS E (68.3 seconds of delay) during the weekday PM peak hour and at a LOS E (67.8 seconds of delay) during the Saturday peak hour.

The 2030 without development (no build) conditions weekday AM, weekday PM, and Saturday peak hour levels of service are summarized on Figures 12, 13, and 14, respectively.

Copies of the capacity analyses performed using Synchro for the 2030 without development (no build) conditions are included in the Appendix to this report.

2030 Without Development (No Build) Queue Analysis

Traffic volumes at each study intersections were used to perform queuing analyses for each approach/lane group for the weekday AM, weekday PM and Saturday peak hours for the 2030 without development (no build) conditions. Synchro was utilized for the queue analyses and the 95th percentile queue length results are reported in Table 2. Based on the results of the analysis, the following queues are anticipated to extend beyond their available storage:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - The northbound Altenheim Avenue shared left turn/through/right turn movement is forecasted to queue beyond its available queue capacity during the weekday AM and weekday PM peak hours.
- US Route 40 (National Road) and Park Road
    - The eastbound US Route 40 left turn movement is forecasted to queue beyond its available queue capacity during the weekday AM peak hour. However, this queue can be contained within the existing two-way center left turn lane.

All other queues are forecasted to be contained within the available storage for each existing turn lane. Copies of the queuing analyses performed using Synchro for the 2030 without development (no build) conditions are included in the Appendix to this report.

H. 2030 With Development (Build) Conditions

The following details the determination of 2030 with development (build) conditions traffic volumes and results of the capacity and queue analyses completed.

2030 With Development (Build) Conditions Traffic Volume Projections

The 2030 with development (build) conditions peak hour traffic volumes were determined by applying the total forecasted peak hour site generated trips for the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development for the weekday AM, weekday PM and Saturday peak hours (Figure 10) to the 2030 without development (no build) peak hour traffic volumes (Figure 11). The resultant 2030 with development (build) peak hour traffic volumes for the weekday AM, weekday PM and Saturday peak hours are summarized in Figure 15.

2030 With Development (Build) Conditions Capacity Analysis

Capacity analyses were performed at the study intersections for the 2030 with development (build) conditions for the weekday AM, weekday PM and Saturday peak hour traffic volumes, as shown in Figure 15. The opening year 2030 with development capacity analysis utilized existing operating conditions as previously detailed, assuming no roadway or timing improvements, at the existing study intersections. The results of the capacity calculations performed for the 2030 with development (build) traffic volumes are summarized in Table 1 for the weekday AM, weekday PM and Saturday peak hours.

The capacity analysis results indicate that the following movements, approaches, and overall intersection level of service decrease levels of service and/or increase delay to unacceptable conditions:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - Eastbound US Route 40 left turn movement is forecasted to decrease level of service and increase delay as follows:
        - AM Peak Hour: from LOS D (45.2 seconds of delay) to LOS F (203.5 seconds of delay)
        - PM Peak Hour: from LOS D (40.1 seconds of delay) to LOS F (144.2 seconds of delay)
        - Saturday Peak Hour: from LOS B (14.9 seconds of delay) to LOS E (60.2 seconds of delay)
    - Eastbound US Route 40 approach is forecasted to decrease level of service and increase overall approach delay as follows:
        - AM Peak Hour: from LOS C (33.5 seconds of delay) to LOS F (139.5 seconds of delay)
        - PM Peak Hour: from LOS C (25.3 seconds of delay) to LOS F (88.3 seconds of delay)
    - Northbound Altenheim Avenue approach is forecasted to decrease level of service and increase overall approach delay as follows:
        - AM Peak Hour: from LOS F (258.9 seconds of delay) to LOS F (433.4 seconds of delay)
        - PM Peak Hour: from LOS F (160.5 seconds of delay) to F (1,529.9 seconds of delay)
        - Saturday Peak Hour: from LOS D (43.4 seconds of delay) to LOS E (55.1 seconds of delay)
    - Southbound WV 88 through and left turn movements are forecasted to decrease level of service and increase delay as follows:
        - AM Peak Hour: from LOS D (48.5 seconds of delay) to LOS E (74.6 seconds of delay)
        - PM Peak Hour: from LOS D (49.0 seconds of delay) to LOS F (268.4 seconds of delay)
        - Saturday Peak Hour: from LOS E (60.9 seconds of delay) to LOS F (154.0 seconds of delay)
    - Southbound WV 88 approach is forecasted to decrease level of service and increase overall approach delay as follows:
        - PM Peak Hour: from LOS B (15.3 seconds of delay) to LOS F (104.6 seconds of delay)
        - Saturday Peak Hour: from LOS B (19.9 seconds of delay) to LOS E (62.0 seconds of delay)
    - The overall intersection of US Route 40 and WV 88 is forecasted to decrease level of service and increase delay as follows:
        - AM Peak Hour: from LOS E (61.3 seconds of delay) to LOS F (112.5 seconds of delay)
        - PM Peak Hour: from LOS D (40.0 seconds of delay) to LOS F (216.0 seconds of delay)
        - Saturday Peak Hour: from LOS B (16.9 seconds of delay) to LOS F (144.9 seconds of delay)
- US Route 40 (National Road) and Leatherwood Lane/Gas Station Driveway
    - Westbound US Route 40 shared through and right turn movement is forecasted to decrease level of service an increase delay as follows:
        - AM Peak Hour: from LOS E (76.1 seconds of delay) to LOS F (92.6 seconds of delay)

  - Westbound US Route 40 approach is forecasted to decrease level of service and increase delay as follows:
    - AM Peak Hour: from LOS E (74.1 seconds of delay) to LOS F (900 seconds of delay)

- US Route 40 (National Road) and Mt. DeChantal Road
  - Westbound US Route 40 left turn movement is forecasted to decrease level of service and increase delay as follows:
    - AM Peak Hour: from LOS D (48.6 seconds of delay) to LOS E (61.6 seconds of delay)
    - PM Peak Hour: from LOS F (106.0 seconds of delay) to LOS F (180.8 seconds of delay)
  - Westbound US Route 40 through movement is forecasted to decrease level of service and increase delay as follows:
    - PM Peak Hour: from LOS D (50.1 seconds of delay) to LOS E (58.2 seconds of delay)
  - Westbound US Route 40 approach is forecasted to decrease level of service and increase overall approach delay as follows:
    - PM Peak Hour: from LOS E (63.9 seconds of delay) to LOS F (88.9 seconds of delay)

- Mt. DeChantal Road and I-70 EB Off-Ramp
  - Eastbound I-70 EB Off-Ramp approach is forecasted to decrease level of service and increase overall approach delay as follows:
    - AM Peak Hour: from LOS E (59.0 seconds of delay) to LOS E (74.8 seconds of delay)
    - PM Peak Hour: from LOS E (77.9 seconds of delay) to LOS F (102.1 seconds of delay)
    - Saturday Peak Hour: from LOS D (50.0 seconds of delay) to LOS E (55.9 seconds of delay)
  - The overall intersection is forecasted to decrease level of service and increase overall delay as follows:
    - PM Peak Hour: from LOS D (45.1 seconds of delay) to LOS E (59.3 seconds of delay)

The 2030 with development (build) conditions without mitigations weekday AM, weekday PM, and Saturday peak hour levels of service are summarized on Figures 16, 17, and 18, respectively.

It should be noted that the capacity analysis conducted at the proposed site driveway intersections with WV 88 and Warden Run Road indicate that the following lane configuration and intersection operation would be required in order to meet an overall intersection LOS D:

- WV 88 (Bethany Pike) and Proposed Site Driveway
  - Construct a full-access driveway providing two (2) lanes ingress and two (2) lanes egress. The proposed site driveway egress should accommodate an exclusive left turn lane and an exclusive right turn lane.
  - Widen the southbound WV 88 approach at the proposed site driveway access to accommodate an exclusive left turn lane and an exclusive through lane.
  - Widen the northbound WV 88 approach at the proposed site driveway access to provide an exclusive northbound right turn lane and an exclusive through lane.

  - Install a fully actuated, uncoordinated, traffic signal at the WV 88 and proposed site driveway intersection. The signal should provide three (3) phases, a protected/permitted left turn phase for the southbound WV 88 approach with a westbound right turn overlap phase, a permissive northbound/southbound phase for WV 88, and a protected westbound phase for the proposed site driveway.

- Warden Run Road (CR 15) and Proposed Site Driveway
  - Construct a full-access driveway provided one (1) lane ingress and one (1) lane egress. The proposed site driveway northbound egress approach should accommodate both left and right turns.
  - Install a stop sign on the northbound site driveway approach.

Copies of the capacity analyses performed using Synchro for the 2030 with development (build) conditions are included in the Appendix to this report.

2030 With Development (Build) Conditions Queue Analysis

Queue analyses were performed at the study intersections for the 2030 with development (build) conditions for the weekday AM, weekday PM and Saturday peak hour traffic volumes, as shown in Figure 15. The opening year 2030 with development (build) queue analysis utilized existing operating conditions as previously detailed, assuming no roadway or timing improvements, at the existing study intersections. Synchro was utilized for the queue analyses and the 95th percentile queue length results are reported in Table 2. Based on the results of the analysis, the following movement and or approaches are anticipated to extend beyond their available storage:

- US Route 40 (National Road) and VW 88 (Bethany Pike)/Altenheim Avenue
  - Northbound Altenheim Avenue approach is forecasted to queue beyond its available storage during the weekday AM and weekday PM peak hours. This approach currently extends beyond its available storage, without the proposed development traffic.
  - Southbound WV 88 right turn movement is forecasted to queue beyond its available storage during the weekday PM peak hour.

- US Route 40 (National Road) and Park Road
  - Eastbound US Route 40 left turn movement is forecasted to queue beyond its available storage during the weekday AM peak hour. This movement is forecasted to queue beyond its available storage for year 2030 without development (no build) conditions; however, the queue can be contained within the existing two-way center left turn lane currently present.

All other queues are forecasted to be contained within the available storage for each existing turn lane and or not forecasted to extend beyond adjacent intersections. Copies of the queue analyses performed using Synchro for the 2030 with development (build) conditions are included in the Appendix to this report.

I. 2030 With Development (Build) Conditions Mitigated

The following mitigations are proposed as part of the GC&P Bethany Pike (WV 88) Mixed-Use Development:

- US Route 40 (National Road) and WV 88 (Bethany Pike)
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.
    - Install pedestrian push-button actuation at all existing pedestrian crossing locations.
- US Route 40 (National Road) and Park Avenue / Leatherwood Lane
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.
    - Install pedestrian push-button actuation at all existing pedestrian crossing locations.
- US Route 40 (National Road) and Mt. DeChantal Road / I-70 Off-Ramps
    - Optimize signal timing splits and offsets.
- Mt. DeChantal Road and Kroger's Driveway
    - Optimize signal timing splits and offsets.
- WV 88 (Bethany Pike) and Proposed Site Driveway
    - Construct a full-access driveway providing two (2) lanes ingress and two (2) lanes egress. The proposed site driveway egress should accommodate an exclusive left turn lane and an exclusive right turn lane.
    - Widen the southbound WV 88 approach at the proposed site driveway access to accommodate an exclusive left turn lane and an exclusive through lane.
    - Widen the northbound WV 88 approach at the proposed site driveway access to provide an exclusive northbound right turn lane and an exclusive through lane.
    - Install a fully actuated, uncoordinated, traffic signal at the WV 88 and proposed site driveway intersection. The signal should provide three (3) phases, a protected/permitted left turn phase for the southbound WV 88 approach with a westbound right turn overlap phase, a permissive northbound/southbound phase for WV 88, and a protected westbound phase for the proposed site driveway.
- Warden Run Road (CR 15) and Proposed Site Driveway
    - Construct a full-access driveway provided one (1) lane ingress and one (1) lane egress. The proposed site driveway northbound egress approach should accommodate both left and right turns.
    - Install a stop sign on the northbound site driveway approach.

The following sections detail the results of the capacity and queue analyses completed incorporating these mitigations.

2030 With Development (Build) Conditions With Mitigation Capacity Analysis

The results of the capacity calculations are summarized in Table 1 for the weekday AM, weekday PM, and Saturday peak hours for the 2030 with development (build) conditions mitigated. Incorporation of the proposed mitigation detailed above results in the following intersections to maintain or improve overall intersection levels of service during the peak hours studied:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue – except PM peak hour
- US Route 40 (National Road) and Park Road
- US Route 40 (National Road) and Leatherwood Lane
- US Route 40 (National Road) and Mt. DeChantal Road
- Mt. DeChantal Road and I-70 EB Off-Ramps

As noted above, implementation of the proposed recommended mitigations at the intersection of US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue results in the PM peak hour analysis to not maintain pre-development (no build) conditions. The capacity analysis results for this intersection indicate that the following movements, approaches, and overall intersection level of service decrease levels of service and/or increase delay during the PM peak hour:

- Eastbound US Route 40 left turn movement is forecasted to decrease level of service and increase delay from LOS D (40.1 seconds of delay) to LOS F (92.3 seconds of delay).
- Eastbound US Route 40 approach is forecasted to decrease level of service and increase delay from LOS C (25.3 seconds of delay) to LOS E (62.1 seconds of delay).
- Westbound US Route 40 approach is forecasted to decrease level of service and increase delay from LOS C (25.8 seconds of delay) to LOS E (58.0 seconds of delay).
- Northbound Altenheim Avenue approach is forecasted to increase delay from LOS F (160.5 seconds to delay) to LOS F (176.2 seconds of delay).
- Southbound WV 88 shared left turn/through movement is forecasted to decrease level of service and increase delay from LOS D (49.0 seconds of delay) to LOS F (81.1 seconds of delay).
- Southbound WV 88 right turn movement is forecasted to decrease level of service and increase delay from LOS B (15.3 seconds of delay) to LOS D (38.1 seconds of delay).
- The overall intersection is forecasted to decrease level of service and increase delay from LOS D (40.0 seconds of delay) to LOS E (64.3 seconds of delay).

It should be noted that at the intersection of US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue, physical improvements to increase capacity cannot be achieved due to the existing intersections constraints and limitations. The projected increase in site generated traffic due to the proposed GC&P Mixed-Use Village Development is marginal. A review of the peak hour traffic volumes shows that the proposed GC&P Mixed-Use Village Development

makes up approximately 30% of the total site traffic occurring at this intersection during the weekday PM peak hour. A summary of the percent development at each intersection studied is summarized in Table 4.

The 2030 with development (build) conditions with mitigations the weekday AM, weekday PM, and Saturday peak hour levels of service are summarized on Figures 19, 20, and 21, respectively.

Copies of the capacity analyses performed using Synchro for the 2030 with development (build) with mitigation conditions are included in the Appendix to this report.

2030 With Development (Build) Conditions Mitigated Queue Analysis

The results of the queue analysis are summarized in Table 2 for the weekday AM, weekday PM, and Saturday peak hours for the 2030 with development (build) conditions mitigated. As shown, the intersection of US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue is forecasted to have queues that exceed available capacity during the weekday AM, weekday PM, and Saturday peak hours. Specifically, the southbound right turn lane on WV 88 (Bethany Pike) would need to be lengthened to 475 feet, exclusive of taper, accommodate the southbound approach queues.

Additionally, based on the results of the queue analysis completed at the intersection of WV 88 (Bethany Pike) and the proposed site driveway, the proposed southbound left turn lane should provide a minimum of 275 feet of vehicular storage, exclusive of taper. The proposed northbound right turn lane should provide a minimum of 450 feet of vehicular storage, exclusive of bay taper.

Copies of the queue analyses performed using Synchro for the 2030 with development (build) with mitigation conditions are included in the Appendix to this report.

J. Additional Analysis

Additional analyses performed included an evaluation of left turn lane and right turn lane warrants at the intersection of WV 88 (Bethany Pike) and the proposed site driveway.

Turn Lane Warrant Evaluation

Guidelines for the provision of an exclusive left turn lane or right turn lane at the intersection of WV 88 and the proposed site driveway were evaluated in accordance with the procedure in the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets 6th Edition* and in the National Cooperative Highway Report Program (NCHRP) Report 457. Based on this evaluation, left turn lane and right turn lane warrant criteria were satisfied for both a southbound left turn lane and a northbound right turn lane on WV 88 at the proposed site driveway.

Based on the results of these warrants, turn lane lengths were calculated per AASHTO methodology. Per AASHTO, the proposed southbound left turn lane should provide a minimum of 125 feet of storage, exclusive of taper, and the proposed northbound right turn lane should provide a minimum of 475 feet of storage, exclusive of taper. It should be noted that per the Synchro queue analysis results, as detailed in Section I, the proposed southbound left turn would

need to provide a minimum of 275 feet of storage, exclusive of taper, to accommodate the forecasted queues. Likewise, the northbound right turn lane would need to provide a minimum of 450 feet of storage, exclusive of taper, to accommodate the forecasted queues.

Copies of the turn lane warrant evaluation worksheets are included in the Appendix to this report.

K. Conclusion

The traffic impact study identifies and evaluates the potential traffic impacts resulting from full build-out of the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development. Based on the study, the following on-site mitigations are recommended:

- WV 88 (Bethany Pike) and Proposed Site Driveway
    - Construct a full-access driveway providing two (2) lanes ingress and two (2) lanes egress. The proposed site driveway egress should accommodate an exclusive left turn lane and an exclusive right turn lane.
    - Widen the southbound WV 88 approach at the proposed site driveway access to accommodate an exclusive left turn lane and an exclusive through lane. The southbound left turn lane should provide a minimum of 275 feet of storage, exclusive of taper.
    - Widen the northbound WV 88 approach at the proposed site driveway access to provide an exclusive northbound right turn lane and an exclusive through lane. The northbound right turn lane should provide a minimum of 450 feet, exclusive of taper.
    - Install a fully actuated, uncoordinated, traffic signal at the WV 88 and proposed site driveway intersection. The signal should provide three (3) phases, a protected/permitted left turn phase for the southbound WV 88 approach with a westbound right turn overlap phase, a permissive northbound/southbound phase for WV 88, and a protected westbound phase for the proposed site driveway.
- Warden Run Road (CR 15) and Proposed Site Driveway
    - Construct a full-access driveway provided one (1) lane ingress and one (1) lane egress. The proposed site driveway northbound egress approach should accommodate both left and right turns.
    - Install a stop sign on the northbound site driveway approach.

In addition, the following off-site mitigations are recommended:

- US Route 40 (National Road) and WV 88 (Bethany Pike)/Altenheim Avenue
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.
    - Lengthen the existing southbound right turn lane to provide a minimum of 475 feet of storage, exclusive of taper.
    - Install pedestrian push-button actuation at all existing pedestrian crossing locations.

- US Route 40 (National Road) and Park Avenue / Leatherwood Lane
    - Optimize signal timing splits and offsets. Optimization of the signal timings includes removal of the existing all-pedestrian phase.
    - Install pedestrian push-button actuation at all existing pedestrian crossing locations.
- US Route 40 (National Road) and Mt. DeChantal Road / I-70 Off-Ramps
    - Optimize signal timing splits and offsets.
- Mt. DeChantal Road and Kroger's Driveway
    - Optimize signal timing splits and offsets.

The results of capacity analysis show that the study intersections can maintain or even improve pre-development (no-build) conditions with implementation of the proposed on-site and off-site mitigation, except at the intersection of US Route 40 and WV 88/Altenheim Avenue. The intersection of US Route 40 and WV 88 (Bethany Pike)/Altenheim Avenue experiences the greatest impacts due to the proposed development. Implementation of the recommended timing optimizations are anticipated to improve operations and maintain pre-development (no-build) conditions for the weekday AM and Saturday peak hours; however, the weekday PM peak hour is anticipated to experience marginal increases in delay.

It can be anticipated that projected traffic volumes will be overstated at the intersection of US Route 40 and WV 88 (Bethany Pike)/Altenheim Avenue due to the proposed development. The proposed community-scaled mixed-use development is anticipated to attract existing local residents. Currently, local residents utilize the US Route 40 corridor and I-70 to access their household needs. However, the proposed community-scaled mixed-use development will provide the household needs for these local residents, thus reducing the volume of traffic originally destined outside the study area via US Route 40 and I-70.

In addition, utilization of The Highlands regional Wheeling market mixed-use development data does allow the traffic model developed for this study to reflect the Wheeling market, but on a much larger super-regional commercial scale. The Highlands is reflective of a regional retail power center, meaning that the center contains category-dominant anchors and is adjacent to a highly visible roadway, Interstate 70. The proposed GC&P WV 88 (Bethany Pike) Mixed-Use Village Development is community-scaled, accommodating community scale needs, and is adjacent to WV 88 (Bethany Pike), a principal arterial roadway. Even though The Highlands trip generation data was selected as a more accurate trip generation predictor than ITE data, it is anticipated that the forecasted trip results will overstate the proposed project traffic impacts to the study area because of the lack of a local data source to make adjustments to the trips to reflect the limitations posed to the potential supply of vehicle trips due to community scale development type and community scale location. Therefore, it is anticipated that the site generated traffic for the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development would be furthered reduced based on the location and community scaled services proposed to be provided.

Lastly, it is anticipated that traffic volumes will increase throughout the study area due to events at Oglebay Resort and Conference Center. For instance, Oglebay Resort and Conference Center holds an annual event during the holiday season, the Festival of Lights, which occurs from mid-November through mid-January. The Festival of Lights attracts over one million visitors each year. Additional major events at Oglebay Resort and Conference Center includes the

Spring Flower and Garden Show, Fourth of July Celebrations, and Octoberfest. However, at the time the traffic counts were completed, no major events were scheduled to occur.

Therefore, based on the information detailed above, it is anticipated that the analysis results presented in the study are highly conservative and implementation of the proposed mitigation measures would accommodate site traffic generated by the proposed GC&P Bethany Pike (WV 88) Mixed-Use Village Development.

This concludes Stahl Sheaffer Engineering's transportation impact study for the proposed GC&P WV 88 (Bethany Pike) Mixed-Use Village Development, located north of the Woodsdale neighborhood, in the City of Wheeling, Ohio County, West Virginia. Included in the Appendix to this report are copies of all counts, analyses, and calculations.

TABLE 1
CAPACITY ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/Approach	Level of Service (Delay in Seconds)[1]											
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND WV 88 (BETHANY PIKE)/ALTENHEIM AVE**												
US 40 (NATIONAL RD) Eastbound	Left Turn	C (31.6)	D (45.2)	F (203.5)	C (32.4)	C (27.8)	D (40.1)	F (144.2)	F (92.3)	A (9.5)	B (14.9)	E (60.2)	C (24.8)
	Through/Right Turn	B (17.0)	B (16.1)	A (14.3)	A (6.4)	A (9.4)	A (9.6)	A (9.5)	B (19.4)	A (5.7)	A (6.1)	A (7.2)	A (7.5)
	Approach	C (25.8)	C (33.5)	F (139.5)	C (23.7)	B (19.0)	C (25.3)	F (88.3)	E (62.1)	A (7.6)	B (10.4)	D (38.6)	B (17.7)
US 40 (NATIONAL RD) Westbound	Left Turn/Through/Right Turn	C (28.3)	C (30.0)	C (26.7)	C (30.1)	C (22.3)	C (25.8)	C (24.7)	E (58.0)	B (15.3)	B (16.9)	C (21.3)	C (30.8)
	Approach	C (28.3)	C (30.0)	C (26.7)	C (30.1)	C (22.3)	C (25.8)	C (24.7)	E (58.0)	B (15.3)	B (16.9)	C (21.3)	C (30.8)
ALTENHEIM AVE Northbound	Left Turn/Through/Right Turn	F (156.8)	F (258.9)	F (433.4)	F (110.3)	F (100.3)	F (160.5)	F (1,529.9)	F (176.2)	D (41.1)	D (43.4)	E (55.1)	C (28.7)
	Approach	F (156.8)	F (258.9)	F (433.4)	F (110.3)	F (100.3)	F (160.5)	F (1,529.9)	F (176.2)	D (41.1)	D (43.4)	E (55.1)	C (28.7)
WV 88 (BETHANY PIKE) Southbound	Through/Left Turn	D (44.6)	D (48.5)	E (74.6)	D (40.8)	D (46.6)	D (49.0)	F (268.4)	F (81.1)	E (58.5)	E (60.9)	F (154.0)	E (63.4)
	Right Turn	A (8.9)	A (9.4)	A (9.2)	B (11.3)	A (4.0)	A (5.9)	B (15.8)	B (14.7)	A (4.3)	A (4.1)	A (4.4)	A (9.8)
	Approach	B (16.9)	B (18.1)	C (26.5)	B (19.1)	B (13.3)	B (15.3)	F (104.6)	D (38.1)	B (19.4)	B (19.9)	E (62.0)	C (30.4)
OVERALL INTERSECTION		**D (43.0)**	**E (61.3)**	**F (112.5)**	**C (34.8)**	**C (28.7)**	**D (40.0)**	**F (216.0)**	**E (64.3)**	**B (15.1)**	**B (16.9)**	**D (41.8)**	**C (26.2)**
INTERSECTION	**WV 88 (BETHANY PIKE) AND GC&P ROAD (CR 7)**												
WV 88 (BETHANY PIKE) Eastbound	Left Turn	A (8.3)	A (8.5)	A (8.5)	N/A	A (8.5)	A (8.8)	A (8.9)	N/A	A (7.9)	A (8.1)	A (8.1)	N/A
	Through/Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (3.0)	A (3.1)	A (3.1)	N/A	A (3.4)	A (3.5)	A (3.6)	N/A	A (2.7)	A (2.7)	A (2.8)	N/A
WV 88 (BETHANY PIKE) Westbound	Left Turn/Through/Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
CHURCH DRIVEWAY Northbound	Left Turn/Through/Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	E (43.4)	F (60.5)	F (68.3)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	E (43.4)	F (60.5)	F (68.3)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
CR 7 (GC&P RD) Southbound	Left Turn/Through/Right Turn	B (13.2)	B (14.9)	C (15.2)	N/A	B (12.5)	B (14.0)	B (14.5)	N/A	B (10.8)	B (11.4)	B (11.7)	N/A
	Approach	B (13.2)	B (14.9)	C (15.2)	N/A	B (12.5)	B (14.0)	B (14.5)	N/A	B (10.8)	B (11.4)	B (11.7)	N/A
OVERALL INTERSECTION		**A (4.8)**	**A (5.3)**	**A (5.5)**	**N/A**	**A (3.9)**	**A (4.3)**	**A (4.5)**	**N/A**	**A (3.5)**	**A (3.6)**	**A (3.8)**	**N/A**
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND PARK ROAD[2]**												
US 40 (NATIONAL RD) Eastbound	Left Turn	D (36.2)	D (42.5)	D (42.6)	B (16.9)	B (13.8)	B (20.0)	C (30.7)	C (20.3)	A (8.2)	A (8.5)	A (8.7)	A (8.9)
	Through/Right Turn	B (18.2)	B (19.5)	C (21.0)	A (9.0)	B (10.6)	B (11.3)	B (12.1)	B (10.6)	A (9.3)	B (10.1)	B (10.8)	B (12.6)
	Approach	C (21.4)	C (23.6)	C (24.4)	B (10.2)	B (11.0)	B (12.3)	B (14.1)	B (11.6)	A (9.2)	B (10.0)	B (10.7)	B (12.4)
US 40 (NATIONAL RD) Westbound	Left Turn	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.4)	A (0.4)	A (0.4)	A (0.2)	A (0.9)	A (1.1)	A (1.0)	A (0.6)
	Through/Right Turn	A (3.3)	A (7.0)	B (11.5)	A (0.9)	A (1.3)	A (1.6)	A (2.1)	A (1.4)	A (1.0)	A (1.1)	A (1.1)	A (0.8)
	Approach	A (3.3)	A (7.0)	B (11.5)	A (0.9)	A (1.3)	A (1.6)	A (2.1)	A (1.4)	A (1.0)	A (1.1)	A (1.1)	A (0.8)
TJ'S DRIVEWAY Northbound	Left Turn/Through/Right Turn	A (0.2)	A (0.2)	A (0.2)	A (0.0)	A (0.1)	A (0.1)	A (0.1)	A (0.3)	A (0.2)	A (0.0)	A (0.0)	A (0.2)
	Approach	A (0.2)	A (0.2)	A (0.2)	A (0.2)	A (0.1)	A (0.1)	A (0.1)	A (0.3)	A (0.2)	A (0.0)	A (0.0)	A (0.2)
PARK RD Southbound	Left Turn/Through	D (43.2)	D (43.8)	D (43.8)	D (52.2)	D (45.5)	D (46.1)	D (46.1)	D (54.0)	D (42.4)	D (42.3)	D (42.2)	D (49.7)
	Right Turn	B (12.6)	B (12.8)	B (12.8)	B (17.4)	A (9.9)	A (9.8)	A (9.8)	B (17.0)	A (0.8)	A (0.8)	A (0.8)	A (1.7)
	Approach	B (17.4)	B (17.5)	B (17.5)	C (22.7)	B (19.2)	B (19.3)	B (19.3)	C (26.7)	B (11.6)	B (11.6)	B (11.6)	B (14.2)
OVERALL INTERSECTION		**B (13.1)**	**B (15.7)**	**B (18.2)**	**A (7.5)**	**A (7.2)**	**A (8.0)**	**A (8.8)**	**A (8.0)**	**A (5.6)**	**A (6.0)**	**A (6.4)**	**A (7.1)**

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 1 (Cont'd)
CAPACITY ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/Approach	Level of Service (Delay in Seconds)[1]											
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND LEATHERWOOD LANE/GAS STATION DRIVEWAY[2]**												
US 40 (NATIONAL RD) Eastbound	Left Turn/Through/Right Turn	A (2.6)	A (4.1)	A (6.0)	A (1.7)	A (1.4)	A (1.6)	A (1.9)	A (1.4)	A (1.1)	A (1.1)	A (1.2)	A (1.3)
	Approach	A (2.6)	A (4.1)	A (6.0)	A (1.7)	A (1.4)	A (1.6)	A (1.9)	A (1.4)	A (1.1)	A (1.1)	A (1.2)	A (1.3)
US 40 (NATIONAL RD) Westbound	Left Turn	D (35.1)	D (37.5)	D (40.5)	E (60.9)	D (52.7)	E (65.8)	D (36.5)	D (49.5)	D (35.8)	D (38.9)	D (36.9)	D (43.2)
	Through/Right Turn	D (47.5)	E (76.1)	F (92.6)	B (14.0)	B (18.8)	C (21.4)	C (25.7)	B (17.1)	B (12.1)	B (12.5)	B (14.5)	B (17.0)
	Approach	D (46.8)	E (74.1)	F (90.0)	B (16.3)	B (19.9)	C (23.0)	C (26.0)	B (18.1)	B (12.9)	B (13.5)	B (15.2)	B (17.8)
LEATHERWOOD LANE Northbound	Left Turn/Through/Right Turn	A (0.6)	A (0.6)	A (0.6)	A (0.7)	A (2.7)	A (4.5)	A (4.5)	A (9.1)	E (58.9)	E (62.9)	E (62.3)	D (53.8)
	Approach	A (0.6)	A (0.6)	A (0.6)	A (0.7)	A (2.7)	A (4.5)	A (4.5)	A (9.1)	E (58.9)	E (62.9)	E (62.3)	D (53.8)
GAS STATION Southbound	Left Turn/Through/Right Turn	B (19.4)	B (19.4)	B (19.4)	B (18.5)	C (23.8)	C (23.8)	C (23.8)	C (24.8)	A (0.6)	A (0.5)	A (0.5)	A (0.5)
	Approach	B (19.4)	B (19.4)	B (19.4)	B (18.5)	C (23.8)	C (23.8)	C (23.8)	C (24.8)	A (0.6)	A (0.5)	A (0.5)	A (0.5)
OVERALL INTERSECTION		**C (25.6)**	**D (40.3)**	**D (48.1)**	**A (9.2)**	**B (11.0)**	**B (12.7)**	**B (14.5)**	**B (10.4)**	**A (9.5)**	**A (10.0)**	**B (10.2)**	**B (11.1)**
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND MT. DECHANTAL ROAD[3]**												
US 40 (NATIONAL RD) Eastbound	Through/Right Turn	B (18.8)	B (19.5)	C (21.1)	C (25.6)	C (28.7)	C (31.6)	D (36.5)	D (52.3)	B (19.9)	C (21.3)	C (26.2)	C (31.6)
	Approach	B (18.8)	B (19.5)	C (21.1)	C (25.6)	C (28.7)	C (31.6)	D (36.5)	D (52.3)	B (19.9)	C (21.3)	C (26.2)	C (31.6)
US 40 (NATIONAL RD) Westbound	Left Turn	D (35.5)	D (48.6)	E (61.6)	C (26.3)	E (65.6)	F (106.0)	F (180.8)	E (60.1)	D (37.2)	D (43.1)	D (52.9)	B (17.9)
	Through	C (29.0)	C (30.7)	C (31.6)	B (13.5)	D (43.3)	D (50.1)	E (58.2)	C (23.4)	C (34.2)	D (37.5)	D (40.6)	B (12.2)
	Approach	C (30.6)	D (35.3)	D (39.3)	B (16.8)	D (48.8)	E (63.9)	F (88.9)	C (32.6)	D (35.1)	D (39.1)	D (44.2)	B (13.9)
MT. DECHANTAL RD Northbound	Left Turn	A (5.8)	A (6.4)	A (6.6)	B (11.0)	A (7.6)	A (8.2)	A (9.3)	B (18.2)	A (7.9)	A (7.1)	A (7.2)	A (8.9)
	Approach	A (5.8)	A (6.4)	A (6.6)	B (11.0)	A (7.6)	A (8.2)	A (9.3)	B (18.2)	A (7.9)	A (7.1)	A (7.2)	A (8.9)
OVERALL INTERSECTION		**C (25.0)**	**C (28.4)**	**C (31.5)**	**B (17.6)**	**D (37.2)**	**D (47.3)**	**E (65.6)**	**C (33.7)**	**C (26.3)**	**C (28.9)**	**C (33.7)**	**B (16.7)**
INTERSECTION	**MT. DECHANTAL ROAD AND I-70 EB OFF-RAMP[3]**												
I-70 EB OFF-RAMP Eastbound	Left Turn/Through/Right Turn	D (45.2)	E (59.0)	E (74.8)	D (43.9)	E (56.4)	E (77.9)	F (102.1)	E (70.2)	D (47.4)	D (50.0)	E (55.9)	D (46.7)
	Approach	D (45.2)	E (59.0)	E (74.8)	D (43.9)	E (56.4)	E (77.9)	F (102.1)	E (70.2)	D (47.4)	D (50.0)	E (55.9)	D (46.7)
MT. DECHANTEL RD Northbound	Through/Right Turn	C (23.9)	C (23.6)	C (23.4)	B (19.0)	C (27.4)	C (30.6)	C (30.2)	D (48.8)	C (25.7)	C (29.7)	C (29.8)	C (29.3)
	Approach	C (23.9)	C (23.6)	C (23.4)	B (19.0)	C (27.4)	C (30.6)	C (30.2)	D (48.8)	C (25.7)	C (29.7)	C (29.8)	C (29.3)
MT. DECHANTEL RD Southbound	Through	A (4.0)	A (5.7)	A (5.9)	A (5.7)	A (4.9)	A (7.0)	C (23.4)	B (12.6)	A (2.4)	A (2.8)	A (3.7)	A (3.6)
	Approach	A (4.0)	A (5.7)	A (5.9)	A (5.7)	A (4.9)	A (7.0)	C (23.4)	B (12.6)	A (2.4)	A (2.8)	A (3.7)	A (3.6)
OVERALL INTERSECTION		**C (28.7)**	**D (35.5)**	**D (43.2)**	**C (27.4)**	**C (34.3)**	**D (45.1)**	**E (59.3)**	**D (49.0)**	**C (28.9)**	**C (31.4)**	**C (34.3)**	**C (30.2)**
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND MT. DECHANTAL ROAD/I-70 OFF-RAMP RIGHT TURNS**												
US 40 (NATIONAL RD) Eastbound	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
US 40 (NATIONAL RD) Westbound	Left Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
I-70 EB OFF-RAMP Northbound	Right Turn	B (12.4)	B (13.8)	C (15.4)	N/A	B (12.5)	B (14.0)	C (16.1)	N/A	B (10.8)	B (11.4)	B (12.7)	N/A
	Approach	B (12.4)	B (13.8)	C (15.4)	N/A	B (12.5)	B (14.0)	C (16.1)	N/A	B (10.8)	B (11.4)	B (12.7)	N/A
OVERALL INTERSECTION		**A (5.0)**	**A (5.6)**	**A (6.4)**	**N/A**	**A (4.8)**	**A (5.4)**	**A (6.0)**	**N/A**	**A (4.5)**	**A (4.8)**	**A (5.3)**	**N/A**

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 1 (Cont'd)
CAPACITY ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/Approach	Level of Service (Delay in Seconds)[1]											
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation
INTERSECTION	**MT. DECHANTAL ROAD AND I-70 EB ON-RAMP/KROGER'S DRIVEWAY**												
KROGERS DRIVEWAY Westbound	Left Turn	C (15.8)	C (17.7)	C (18.4)	N/A	C (19.2)	C (22.3)	C (24.5)	N/A	C (15.2)	C (16.9)	C (18.2)	N/A
	Right Turn	B (11.0)	B (11.5)	B (11.8)	N/A	B (13.0)	B (13.8)	B (14.5)	N/A	B (11.1)	B (11.5)	B (12.1)	N/A
	Approach	B (11.2)	B (11.8)	B (12.1)	N/A	B (13.1)	B (13.9)	B (14.6)	N/A	B (11.1)	B (11.6)	B (12.2)	N/A
MT. DECHANTAL RD Northbound	Left Turn	A (8.6)	A (8.8)	A (8.9)	N/A	A (8.9)	A (9.2)	A (9.4)	N/A	A (8.5)	A (8.8)	A (8.9)	N/A
	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (1.1)	A (1.1)	A (1.0)	N/A	A (1.6)	A (1.6)	A (1.6)	N/A	A (1.6)	A (1.7)	A (1.5)	N/A
MT. DECHANTAL RD Southbound	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
OVERALL INTERSECTION		**A (1.5)**	**A (1.5)**	**A (1.4)**	**N/A**	**A (2.6)**	**A (2.6)**	**A (2.5)**	**N/A**	**A (2.6)**	**A (2.5)**	**A (2.4)**	**N/A**
INTERSECTION	**MT. DECHANTAL ROAD AND KROGER'S DRIVEWAY**												
KROGERS DRIVEWAY Westbound	Left Turn	D (42.1)	D (42.1)	D (42.1)	N/A	D (44.8)	D (44.8)	D (44.8)	N/A	D (47.2)	D (47.2)	D (47.2)	N/A
	Right Turn	E (62.6)	E (62.6)	E (62.6)	N/A	E (69.9)	E (69.9)	E (69.9)	N/A	E (68.9)	E (68.9)	E (68.9)	N/A
	Approach	E (61.0)	E (61.0)	E (61.0)	N/A	E (68.3)	E (68.3)	E (68.3)	N/A	E (67.8)	E (67.8)	E (67.8)	N/A
MT. DECHANTAL RD Northbound	Through	A (4.9)	A (5.1)	A (5.3)	N/A	A (7.5)	A (7.8)	A (8.1)	N/A	A (5.4)	A (5.6)	A (5.9)	N/A
	Right Turn	A (3.9)	A (3.9)	A (3.9)	N/A	A (6.4)	A (6.4)	A (6.4)	N/A	A (5.0)	A (5.0)	A (5.0)	N/A
	Approach	A (4.7)	A (4.9)	A (5.1)	N/A	A (7.2)	A (7.4)	A (7.7)	N/A	A (5.3)	A (5.4)	A (5.7)	N/A
MT. DECHANTAL RD Southbound	Left Turn	A (2.5)	A (2.6)	A (2.7)	N/A	A (4.3)	A (4.5)	A (4.7)	N/A	A (3.3)	A (3.4)	A (3.4)	N/A
	Through	A (0.1)	A (0.1)	A (0.1)	N/A	A (0.1)	A (0.1)	A (0.1)	N/A	A (2.0)	A (2.0)	A (0.0)	N/A
	Approach	A (1.5)	A (1.5)	A (1.6)	N/A	A (3.4)	A (3.5)	A (3.4)	N/A	A (3.2)	A (3.2)	A (2.7)	N/A
OVERALL INTERSECTION		**B (10.2)**	**A (9.9)**	**A (9.7)**	**N/A**	**B (16.8)**	**B (16.4)**	**B (16.0)**	**N/A**	**B (15.9)**	**B (15.4)**	**B (14.5)**	**N/A**
INTERSECTION	**US ROUTE 40 NATIONAL ROAD AND I-70 WB ON-RAMP[4]**												
US 40 NATIONAL RD Eastbound	Through/Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
US 40 NATIONAL RD Westbound	Left Turn	A (7.6)	B (10.9)	B (12.7)	N/A	A (8.6)	B (12.9)	C (20.6)	N/A	A (3.7)	A (4.7)	A (6.0)	N/A
	Through	A (3.8)	A (4.6)	A (5.1)	N/A	A (3.9)	A (5.1)	A (7.2)	N/A	A (2.8)	A (3.0)	A (3.3)	N/A
	Approach	A (8.9)	B (10.9)	B (12.0)	N/A	A (8.5)	B (11.0)	C (15.6)	N/A	A (6.0)	A (6.5)	A (7.3)	N/A
OVERALL INTERSECTION		**A (6.8)**	**A (8.4)**	**A (9.2)**	**N/A**	**A (6.4)**	**A (8.2)**	**B (11.7)**	**N/A**	**A (4.5)**	**A (4.8)**	**A (5.4)**	**N/A**
INTERSECTION	**WV 88 (BETHANY PIKE/OGLEBAY DRIVE) AND WARDEN RUN ROAD (CR 15)**												
WV 88 (BETHANY PIKE) Northeastbound	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Right Turn	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
WARDEN RUN RD Westbound	Left Turn/Right Turn	B (12.5)	B (13.4)	B (13.7)	N/A	B (14.4)	C (16.1)	C (16.8)	N/A	B (12.0)	B (12.7)	B (13.1)	N/A
	Approach	B (12.5)	B (13.4)	B (13.7)	N/A	B (14.4)	C (16.1)	C (16.8)	N/A	B (12.0)	B (12.7)	B (13.1)	N/A
WV 88 (OGLEBAY DRIVE) Southwestbound	Left Turn	A (7.7)	A (7.8)	A (7.8)	N/A	A (7.9)	A (8.0)	A (8.1)	N/A	A (7.7)	A (7.8)	A (7.8)	N/A
	Through	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A	A (0.0)	A (0.0)	A (0.0)	N/A
	Approach	A (0.1)	A (0.1)	A (0.2)	N/A	A (0.1)	A (0.1)	A (0.3)	N/A	A (0.1)	A (0.1)	A (0.4)	N/A
OVERALL INTERSECTION		**A (1.4)**	**A (1.5)**	**A (1.6)**	**N/A**	**A (2.0)**	**A (2.2)**	**A (2.5)**	**N/A**	**A (1.5)**	**A (1.6)**	**A (1.9)**	**N/A**

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 1 (Cont'd)
CAPACITY ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/Approach	Level of Service (Delay in Seconds)[1]											
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
		2020 Existing Operation[2]	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing Operation[2]	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing Operation[2]	2030 No Build	2030 Build	2030 Build With Mitigation
INTERSECTION	**WV 88 (BETHANY PIKE) AND SITE DRIVEWAY**												
SITE DRIVEWAY Westbound	Left Turn	N/A	N/A	B (15.9)	N/A	N/A	N/A	C (22.5)	N/A	N/A	N/A	C (20.2)	N/A
	Right Turn	N/A	N/A	B (11.7)	N/A	N/A	N/A	B (13.3)	N/A	N/A	N/A	A (4.7)	N/A
	Approach	N/A	N/A	B (15.7)	N/A	N/A	N/A	C (22.0)	N/A	N/A	N/A	B (19.4)	N/A
WV 88 (BETHANY PIKE) Northbound	Through	N/A	N/A	A (8.2.)	N/A	N/A	N/A	B (15.7)	N/A	N/A	N/A	B (19.3)	N/A
	Right Turn	N/A	N/A	A (5.0)	N/A	N/A	N/A	A (3.1)	N/A	N/A	N/A	A (0.7)	N/A
	Approach	N/A	N/A	A (7.0)	N/A	N/A	N/A	B (11.3)	N/A	N/A	N/A	B (10.1)	N/A
WV 88 (BETHANY PIKE) Southbound	Left Turn	N/A	N/A	A (5.3)	N/A	N/A	N/A	B (10.7)	N/A	N/A	N/A	A (8.9)	N/A
	Through	N/A	N/A	A (4.7)	N/A	N/A	N/A	A (9.0)	N/A	N/A	N/A	B (13.2)	N/A
	Approach	N/A	N/A	A (4.7)	N/A	N/A	N/A	A (9.0)	N/A	N/A	N/A	B (13.0)	N/A
OVERALL INTERSECTION		**N/A**	**N/A**	**A (6.7)**	**N/A**	**N/A**	**N/A**	**B (13.2)**	**N/A**	**N/A**	**N/A**	**B (13.0)**	**N/A**
INTERSECTION	**WARDEN RUN ROAD (CR 15) AND SITE DRIVEWAY**												
WARDEN RUN ROAD Eastbound	Through/Right Turn	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A
	Approach	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A
WARDEN RUN ROAD Westbound	Left Turn	N/A	N/A	A (7.4)	N/A	N/A	N/A	A (7.4)	N/A	N/A	N/A	A (7.4)	N/A
	Through	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A	N/A	N/A	A (0.0)	N/A
	Approach	N/A	N/A	A (1.3)	N/A	N/A	N/A	A (1.2)	N/A	N/A	N/A	A (1.8)	N/A
SITE DRIVEWAY Northbound	Left Turn/Right Turn	N/A	N/A	A (8.9)	N/A	N/A	N/A	A (9.2)	N/A	N/A	N/A	A (9.0)	N/A
	Approach	N/A	N/A	A (8.9)	N/A	N/A	N/A	A (9.2)	N/A	N/A	N/A	A (9.0)	N/A
OVERALL INTERSECTION		**N/A**	**N/A**	**A (1.1)**	**N/A**	**N/A**	**N/A**	**A (1.9)**	**N/A**	**N/A**	**N/A**	**A (2.1)**	**N/A**

(1) Capacity analysis utilized Synchro 10.3, Build 122, Revision 0, to determine level of service and vehicular delay. Level of service and vehicular delay were calculated using methodologies published in *Highway Capacity Manual 6th Edition* by the Transportation Research Board, 2010, were applicable. Signalized intersections not utilizing standard nema operations, which include two intersections operating on one controller (clustered intersections) or intersections with an all pedestrian phase, Synchro level of service and delay results are reported.

(2) The intersections of US Route 40 (National Road) with Park Avenue and US 40 (National Road) with Leatherwood Lane operate as a clustered intersection (both intersections operating from the same controller); therefore, Synchro level of service and delay are reported.

(3) The intersections of US Route 40 (National Road) with Mt.DeChantal Road and Mt.DeChantal Road with I-70 EB Off-Ramp operate as a clustered intersection (both intersections operating from the same controller); therefore, Synchro level of service and delay are reported.

(4) The intersection of US Route 40 (National Road) and I-70 WB On-Ramp reports Synchro level of service and delay.

Note: N/A denotes a movement, approach, or overall intersection LOS not reported because the intersection does not currently exist, or a mitigation analysis was not needed at that specific intersection analyzed.

Level of Service Criteria for Signalized Intersections	
Level of Service	Delay (Seconds/Vehicle)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F*	> 80

Source: Highway Capacity Manual (HCM) 2010

* If volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Level of Service Criteria for Unsignalized Intersections	
Level of Service	Delay (Seconds/Vehicle)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F*	> 50

Source: Highway Capacity Manual (HCM) 2010

* If volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at a two-way stop controlled intersections. Overall intersection LOS is determined solely by control delay.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 2
QUEUE ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/ Approach	95th Percentile Queue Length (ft)[1]												Existing Queue Capacity[2] (Feet)
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour				
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND WV 88 (BETHANY PIKE)/ALTENHEIM AVE**													
US 40 (NATIONAL RD) Eastbound	Left Turn	277	338	#504	372	253	394	#719	#679	100	153	493	410	850
	Through/Right Turn	193	216	176	95	162	182	177	359	98	109	106	236	850
US 40 (NATIONAL RD) Westbound	Left Turn/Through/Right Turn	143	164	181	195	258	300	367	423	191	222	273	285	1,610
ALTENHEIM AVE Northbound	Left Turn/Through/Right Turn	#350	#417	#450	#365	#380	#459	#564	#467	105	119	154	105	265
WV 88 (BETHANY PIKE) Southbound	Through/Left Turn	137	154	250	192	139	157	#561	465	136	155	#456	361	715
	Right Turn	61	63	119	208	55	100	300	356	48	50	79	178	130
INTERSECTION	**WV 88 (BETHANY PIKE) AND GC&P ROAD (CR 7)**													
WV 88 (BETHANY PIKE) Eastbound	Left Turn	9	11	12	N/A	16	20	22	N/A	7	9	10	N/A	130
	Through/Right Turn	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	280
WV 88 (BETHANY PIKE) Westbound	Left Turn/Through/Right Turn	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	125
CHURCH DRIVEWAY Northbound	Left Turn/Through/Right Turn	0	0	0	N/A	1	1	2	N/A	0	0	0	N/A	55
CR 7 (GC&P RD) Southbound	Left Turn/Through/Right Turn	44	60	64	N/A	29	39	44	N/A	18	23	26	N/A	910
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND PARK ROAD**													
US 40 (NATIONAL RD) Eastbound	Left Turn	122	163	162	59	65	87	108	52	24	27	26	36	150
	Through/Right Turn	204	238	273	221	183	214	264	345	148	171	208	287	1,100
US 40 (NATIONAL RD) Westbound	Left Turn	0	0	0	0	0	0	0	0	1	1	1	1	60
	Through/Right Turn	12	10	10	2	9	11	10	6	13	14	14	11	115
TJ'S DRIVEWAY Northbound	Left Turn/Through/Right Turn	0	0	0	0	0	0	0	0	0	0	0	0	45
PARK RD Southbound	Left Turn/Through	49	54	54	56	81	89	89	94	33	35	35	37	190
	Right Turn	53	56	56	59	61	64	64	87	0	0	0	0	250
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND LEATHERWOOD LANE/GAS STATION DRIVEWAY**													
US 40 (NATIONAL RD) Eastbound	Left Turn/Through/Right Turn	2	16	27	0	0	37	41	0	13	0	0	0	125
US 40 (NATIONAL RD) Westbound	Left Turn	45	46	44	60	65	68	32	32	55	62	24	39	325
	Through/Right Turn	342	#410	#423	243	253	314	402	397	126	142	222	346	790
LEATHERWOOD LANE Northbound	Left Turn/Through/Right Turn	0	0	0	0	1	10	10	30	114	135	135	115	500
GAS STATION Southbound	Left Turn/Through	32	32	32	32	42	42	42	42	0	0	0	0	25

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 2 (Cont'd)
QUEUE ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/ Approach	95th Percentile Queue Length (ft)[1]												Existing Queue Capacity[2] (Feet)
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour				
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND MT. DECHANTAL ROAD[3]**													
US 40 (NATIONAL RD) Eastbound	Through/Right Turn	78	88	97	105	137	161	188	224	91	101	125	138	440
US 40 (NATIONAL RD) Westbound	Left Turn	289	346	356	254	338	#382	#506	#453	258	291	354	65	755
	Through	349	391	405	211	396	465	569	535	284	321	372	74	1,150
MT. DECHANTAL RD Northbound	Left Turn	14	15	15	33	27	31	37	45	23	22	22	30	65
INTERSECTION	**MT. DECHANTAL ROAD AND I-70 EB OFF-RAMP**													
I-70 EB OFF-RAMP Eastbound	Left Turn/Through/Right Turn	298	383	#424	374	396	#485	#547	508	274	317	397	348	1,225
MT. DECHANTAL RD Northbound	Through/Right Turn	111	124	130	116	166	210	213	307	130	174	185	173	230
MT. DECHANTAL RD Southbound	Through	37	37	34	35	27	25	21	38	18	21	34	31	85
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND MT. DECHANTAL ROAD/I-70 OFF-RAMP RIGHT TURNS**													
US 40 (NATIONAL RD) Eastbound	Through	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	125
US 40 (NATIONAL RD) Westbound	Through	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	1,010
I-70 EB OFF-RAMP Northbound	Right Turn	70	92	116	N/A	68	90	119	N/A	41	51	71	N/A	150
INTERSECTION	**MT. DECHANTAL ROAD AND I-70 EB ON-RAMP/KROGER'S DRIVEWAY**													
KROGERS DRIVEWAY Westbound	Left Turn	1	1	1	N/A	1	1	1	N/A	1	1	1	N/A	190
	Right Turn	11	12	13	N/A	31	33	36	N/A	22	24	26	N/A	190
MT. DECHANTAL RD Northbound	Left Turn	4	5	5	N/A	7	9	10	N/A	5	6	6	N/A	150
	Through	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	390
MT. DECHANTAL RD Southbound	Through/Right Turn	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	210
INTERSECTION	**MT. DECHANTAL ROAD AND KROGER'S DRIVEWAY**													
KROGERS DRIVEWAY Westbound	Left Turn	16	16	16	N/A	26	26	26	N/A	19	19	19	N/A	180
	Right Turn	41	41	41	N/A	63	63	63	N/A	57	57	57	N/A	80
MT. DECHANTAL RD Northbound	Through	124	143	157	N/A	152	176	198	N/A	95	107	128	N/A	325
	Right Turn	15	15	15	N/A	22	22	24	N/A	18	18	18	N/A	120
MT. DECHANTAL RD Southbound	Left Turn	20	19	8	N/A	153	151	157	N/A	26	35	32	N/A	200
	Through	13	14	14	N/A	35	40	60	N/A	5	7	10	N/A	420

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 2 (Cont'd)
QUEUE ANALYSIS SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Direction	Movement/ Approach	95th Percentile Queue Length (ft)[1]												Existing Queue Capacity[2] (Feet)
		AM Peak Hour				PM Peak Hour				Saturday Peak Hour				
		2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	2020 Existing	2030 No Build	2030 Build	2030 Build With Mitigation	
INTERSECTION	**US ROUTE 40 (NATIONAL ROAD) AND I-70 WB ON-RAMP**													
US 40 (NATIONAL RD) Eastbound	Through/Right Turn	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	535
US 40 (NATIONAL RD) Westbound	Left Turn/Through	103	152	176	N/A	110	167	231	N/A	44	57	75	N/A	395
INTERSECTION	**WV 88 (BETHANY PIKE/OGLEBAY DRIVE) AND WARDEN RUN ROAD (CR 15)**													
WV 88 (BETHANY PIKE) Northeastbound	Through/Right Turn	0	0	0	N/A	0	0	0	N/A	0	0	0	N/A	250
WARDEN RUN ROAD Westbound	Left Turn/Right Turn	8	10	11	N/A	16	20	24	N/A	8	10	12	N/A	375
OGLEBAY DRIVE Southwestbound	Left Turn/Through	0	0	1	N/A	0	0	1	N/A	0	0	1	N/A	140
INTERSECTION	**WV 88 (BETHANY PIKE) AND SITE DRIVEWAY**													
SITE DRIVE Westbound	Left Turn	N/A	N/A	68	N/A	N/A	N/A	362	N/A	N/A	N/A	220	N/A	N/A
	Right Turn	N/A	N/A	6	N/A	N/A	N/A	14	N/A	N/A	N/A	10	N/A	N/A
WV 88 (BETHANY PIKE) Northbound	Through	N/A	N/A	175	N/A	N/A	N/A	425	N/A	N/A	N/A	253	N/A	2,450
	Right Turn	N/A	N/A	13	N/A	N/A	N/A	11	N/A	N/A	N/A	13	N/A	N/A
WV 88 (BETHANY PIKE) Southbound	Left Turn	N/A	N/A	6	N/A	N/A	N/A	14	N/A	N/A	N/A	16	N/A	N/A
	Through	N/A	N/A	176	N/A	N/A	N/A	263	N/A	N/A	N/A	198	N/A	650
INTERSECTION	**WARDEN RUN ROAD (CR 15) AND SITE DRIVEWAY**													
WARDEN RUN RD Eastbound	Through/Right Turn	N/A	N/A	0	N/A	N/A	N/A	0	N/A	N/A	N/A	0	N/A	1,870
WARDEN RUN RD Westbound	Left Turn/Through	N/A	N/A	1	N/A	N/A	N/A	1	N/A	N/A	N/A	1	N/A	1,260
SITE DRIVEWAY Northbound	Left Turn/Right Turn	N/A	N/A	1	N/A	N/A	N/A	3	N/A	N/A	N/A	2	N/A	N/A

(1) Queue analysis utilized Synchro 10.3, Build 122, Revision 0, reporting the 95th percentile queue length, in Feet.

(2) Available storage capacity for through movements obtained from Google Earth (Version 7), reporting to the next intersecting street/roadway, rounded to the nearest 5 ft.

Note: # Denotes the volume-to-capacity (v/c) ratio is reported greater than or equal to 1.00 per Synchro results.

N/A Denotes movement/approach does not exist prior to/following proposed development, or a mitigation analysis was not needed at that specific intersection analyzed.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 3
TRIP GENERATION SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Development	Size	Site Generated 24-Hour Daily Traffic		Site Generated Peak Hour Trafic Volumes[1]								
				AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		Weekday	Saturday	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
GC&P Mixed-Use Village Development	997,900 SF	8,468	9,525	261	109	370	337	447	784	404	351	755

(1) Based on The Highlands regional Wheeling market mixed-use development data.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE 4
PERCENT DEVELOPMENT SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Intersection	Percent Development at Intersection			
	AM Peak Hour			
	2030 Build (With Development)	2030 No Build (Without Development)	Site Traffic	Percent Development
US Route 40 & WV 88	2245	1919	326	16.99%
US Route 40 & Park Road	2414	2265	149	6.58%
US Route 40 & Leatherwood Lane	2102	1953	149	7.63%
US Route 40 & Mt. DeChantal Road	2748	2599	149	5.73%
Mt. DeChantal Road & I-70 EB Off-Ramp	1755	1662	93	5.60%
Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Dwy	1062	1021	41	4.02%
Mt. DeChantal Road & Kroger's Dwy	761	725	36	4.97%
US Route 40 &I-70 WB On-Ramp	1480	1424	56	3.93%
WV 88 & GC&P Road	987	969	18	1.86%
WV 88 & Warden Run Road	567	553	14	2.53%

Intersection	Percent Development at Intersection			
	PM Peak Hour			
	2030 Build (With Development)	2030 No Build (Without Development)	Site Traffic	Percent Development
US Route 40 & WV 88	3015	2325	690	29.68%
US Route 40 & Park Road	2822	2509	313	12.48%
US Route 40 & Leatherwood Lane	2585	2272	313	13.78%
US Route 40 & Mt. DeChantal Road	3342	3029	313	10.33%
Mt. DeChantal Road & I-70 EB Off-Ramp	2102	1949	153	7.85%
Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Dwy	1409	1323	86	6.50%
Mt. DeChantal Road & Kroger's Dwy	1028	964	64	6.64%
US Route 40 &I-70 WB On-Ramp	1904	1744	160	9.17%
WV 88 & GC&P Road	1104	1065	39	3.66%
WV 88 & Warden Run Road	683	651	32	4.92%

Intersection	Percent Development at Intersection			
	Saturday Peak Hour			
	2030 Build (With Development)	2030 No Build (Without Development)	Site Traffic	Percent Development
US Route 40 & WV 88	2370	1706	664	38.92%
US Route 40 & Park Road	2025	1723	302	17.53%
US Route 40 & Leatherwood Lane	1957	1655	302	18.25%
US Route 40 & Mt. DeChantal Road	2479	2177	302	13.87%
Mt. DeChantal Road & I-70 EB Off-Ramp	1680	1516	164	10.82%
Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Dwy	1128	1045	83	7.94%
Mt. DeChantal Road & Kroger's Dwy	798	732	66	9.02%
US Route 40 &I-70 WB On-Ramp	1363	1225	138	11.27%
WV 88 & GC&P Road	810	772	38	4.92%
WV 88 & Warden Run Road	526	496	30	6.05%

Source: Summary by Stahl Sheaffer Engineering, LLC.

Study Intersections:

1 - US Route 40 (National Road) and WV 88 (Bethany Pike)

2 - WV 88 (Bethany Pike) and GCP Road (CR 7)

3 - US Route 40 and Park Road/Leatherwood Lane

4 - US Route 40 and I-70 Off-Ramps/Mt. DeChantal Road

5 - Mt. DeChantal Road and I-70 EB On-Ramp/Krogers Driveway

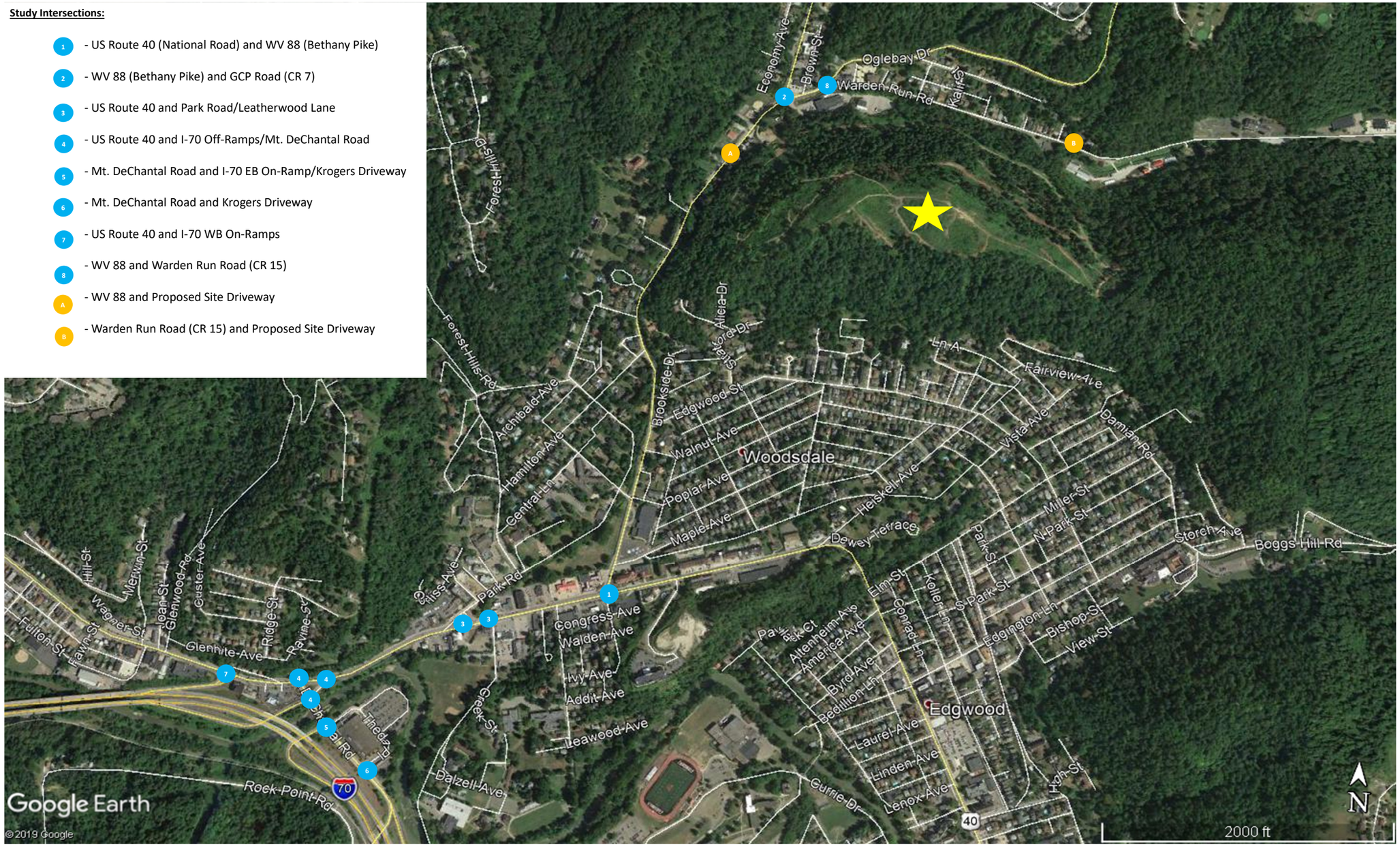
6 - Mt. DeChantal Road and Krogers Driveway

7 - US Route 40 and I-70 WB On-Ramps

8 - WV 88 and Warden Run Road (CR 15)

A - WV 88 and Proposed Site Driveway

B - Warden Run Road (CR 15) and Proposed Site Driveway



Legend

Site Location

Turning Movement Count Location

Proposed Site Driveway Location

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CITY OF WHEELING, OHIO COUNTY

Site Location and Study Intersections

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	2
SCALE:	NTS

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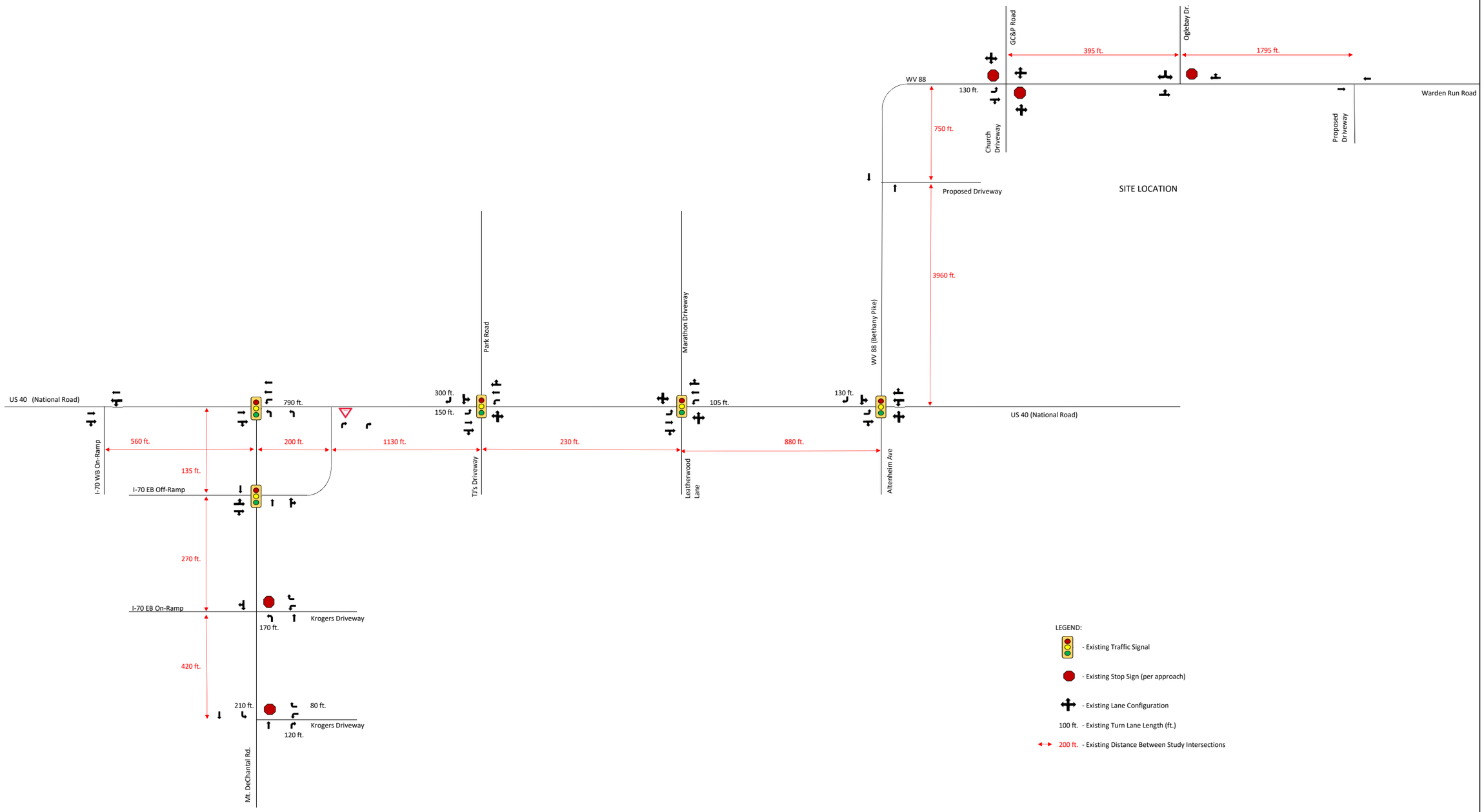
Site Plan

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	2
SCALE:	NTS



LEGEND:

- Existing Traffic Signal
- Existing Stop Sign (per approach)
- Existing Lane Configuration
- 100 ft. - Existing Turn Lane Length (ft.)
- 200 ft. - Existing Distance Between Study Intersections

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Study Intersections and Existing Roadway Configurations

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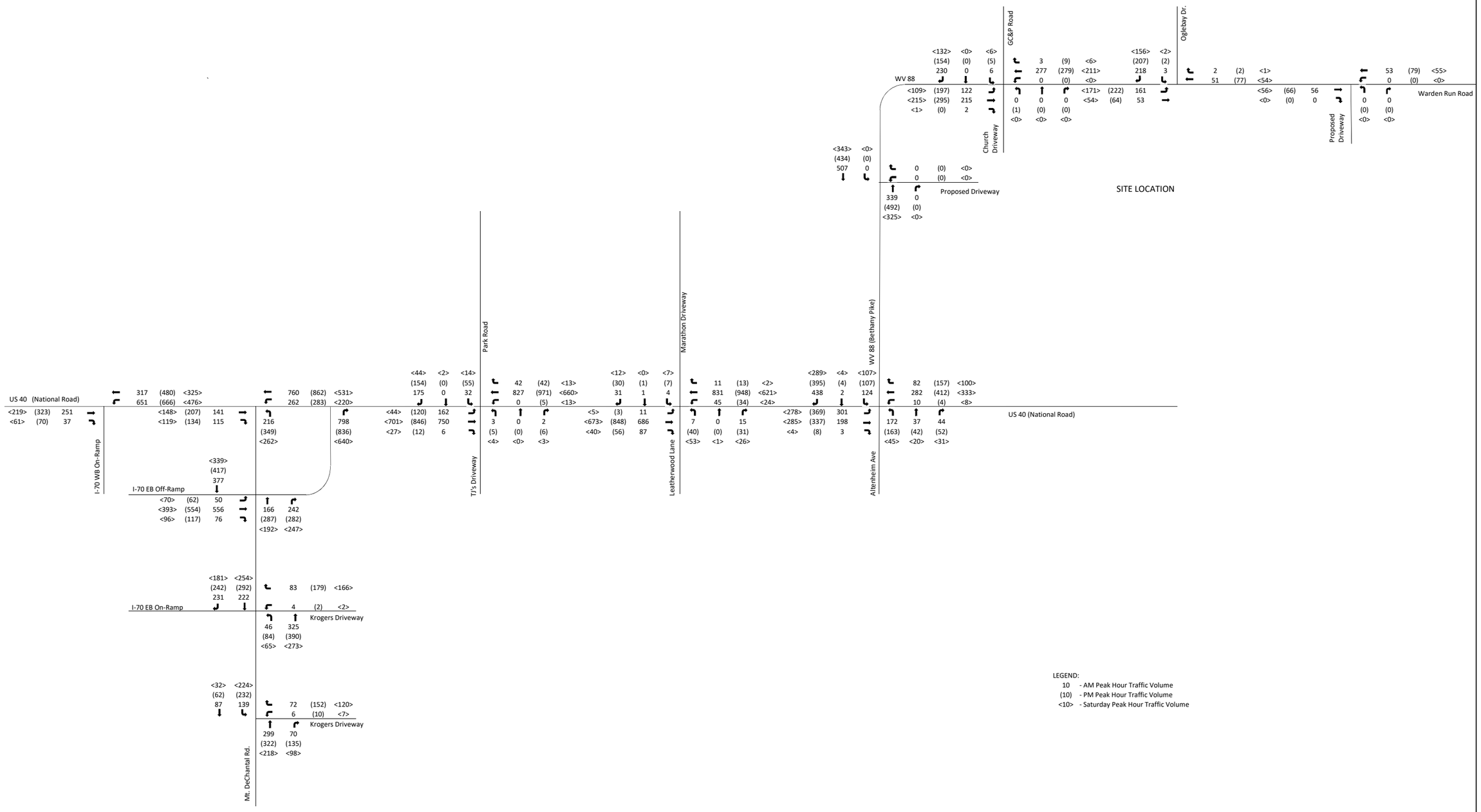
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	3
SCALE:	NTS



LEGEND:
10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume

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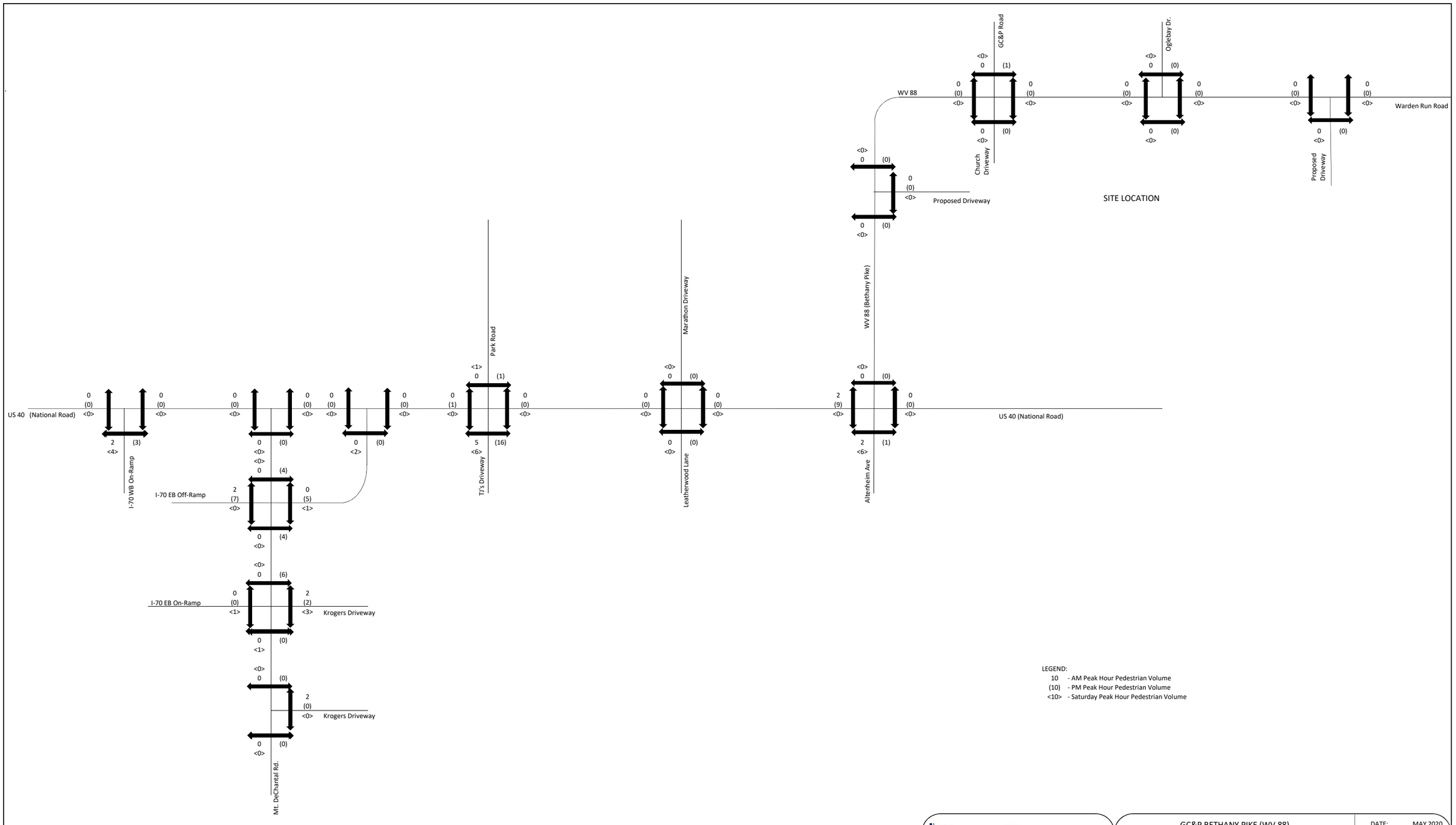
2020 Existing Conditions
Peak Hour Traffic Volumes

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	4
SCALE:	NTS



LEGEND:
10 - AM Peak Hour Pedestrian Volume
(10) - PM Peak Hour Pedestrian Volume
<10> - Saturday Peak Hour Pedestrian Volume

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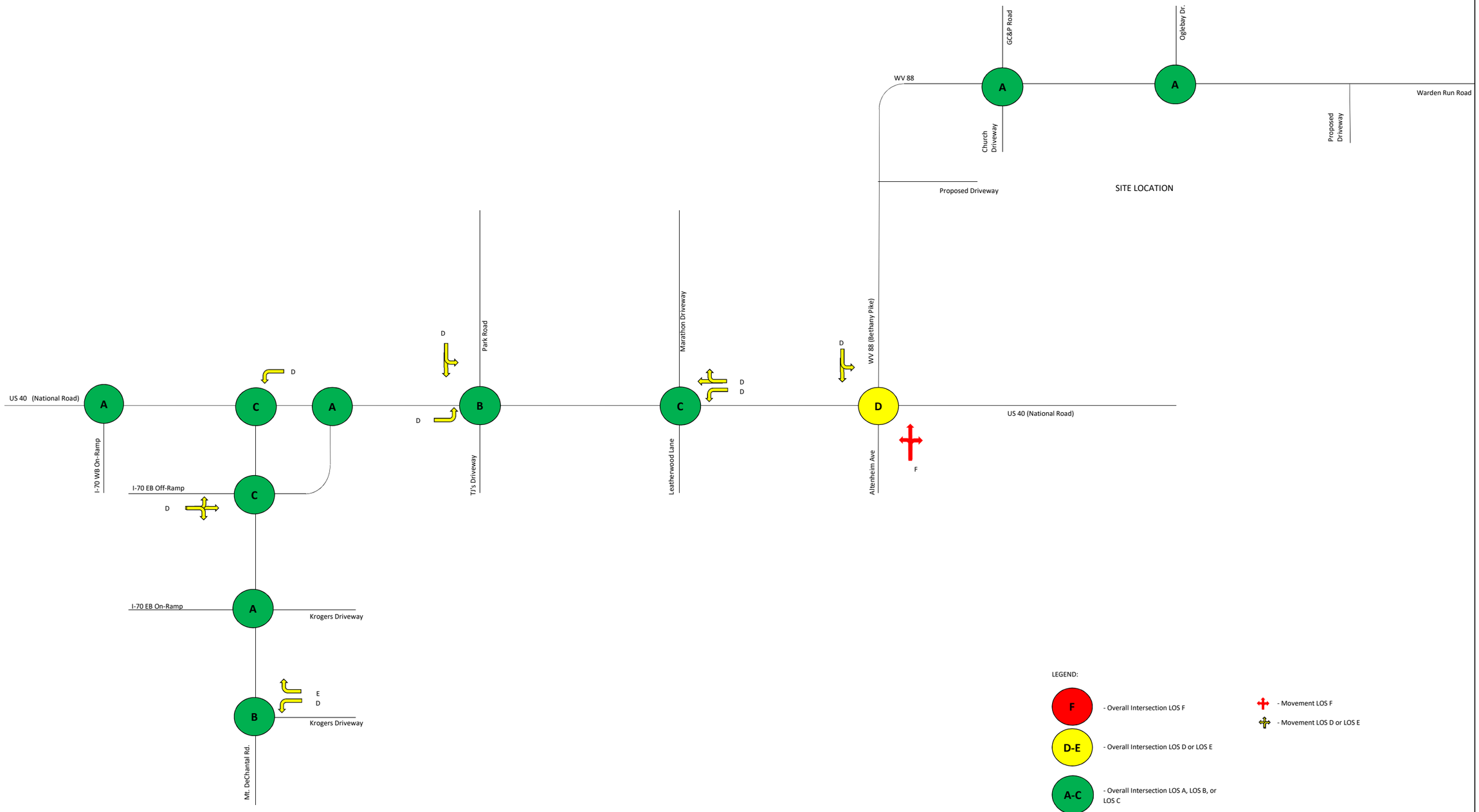
2020 Existing Conditions Peak Hour Pedestrian Volumes

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	5
SCALE:	NTS



LEGEND:

F	- Overall Intersection LOS F
D-E	- Overall Intersection LOS D or LOS E
A-C	- Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

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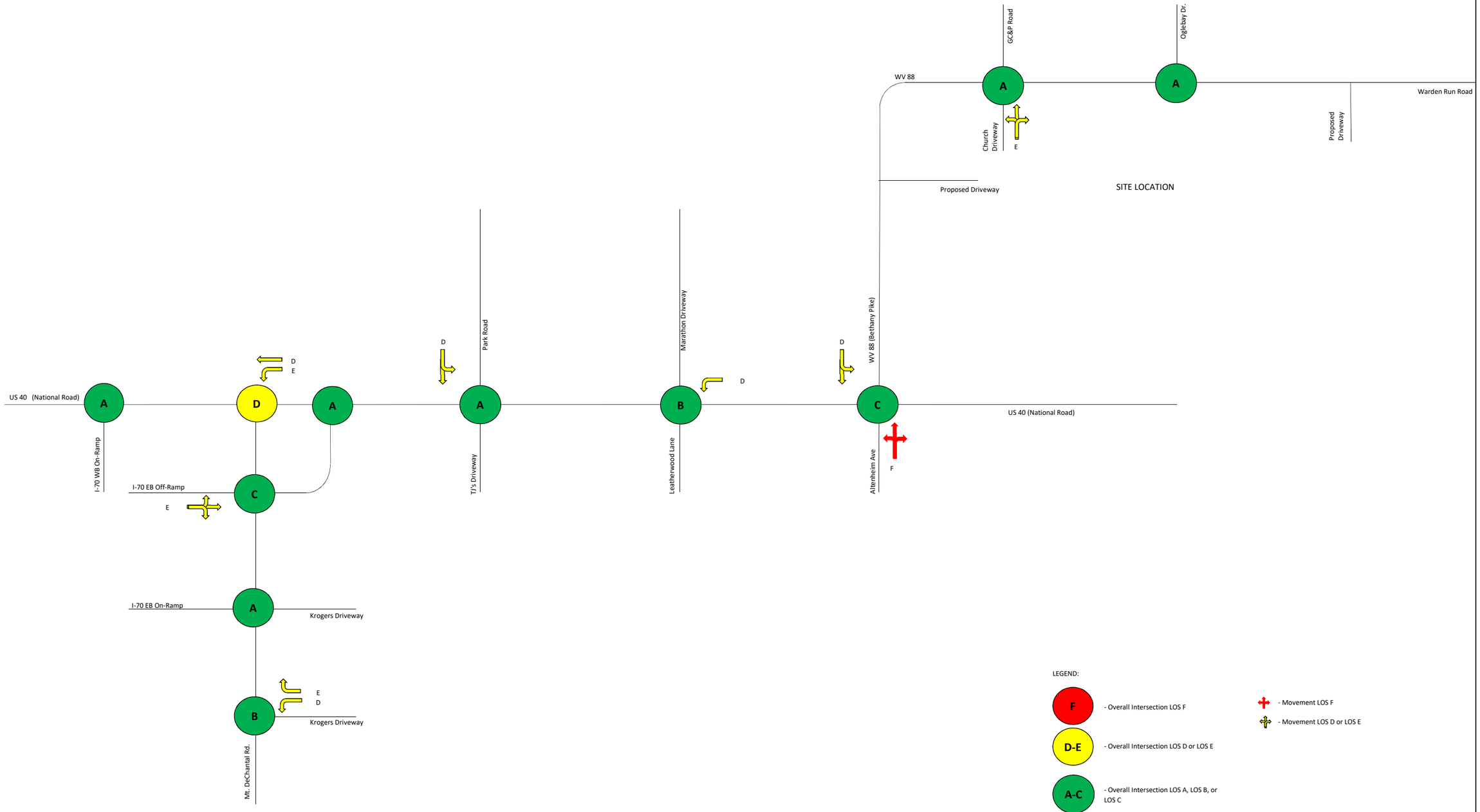
CITY OF WHEELING, OHIO COUNTY

2020 Existing Conditions
AM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	6
SCALE:	NTS



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D-E	- Overall Intersection LOS D or LOS E
A-C	- Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

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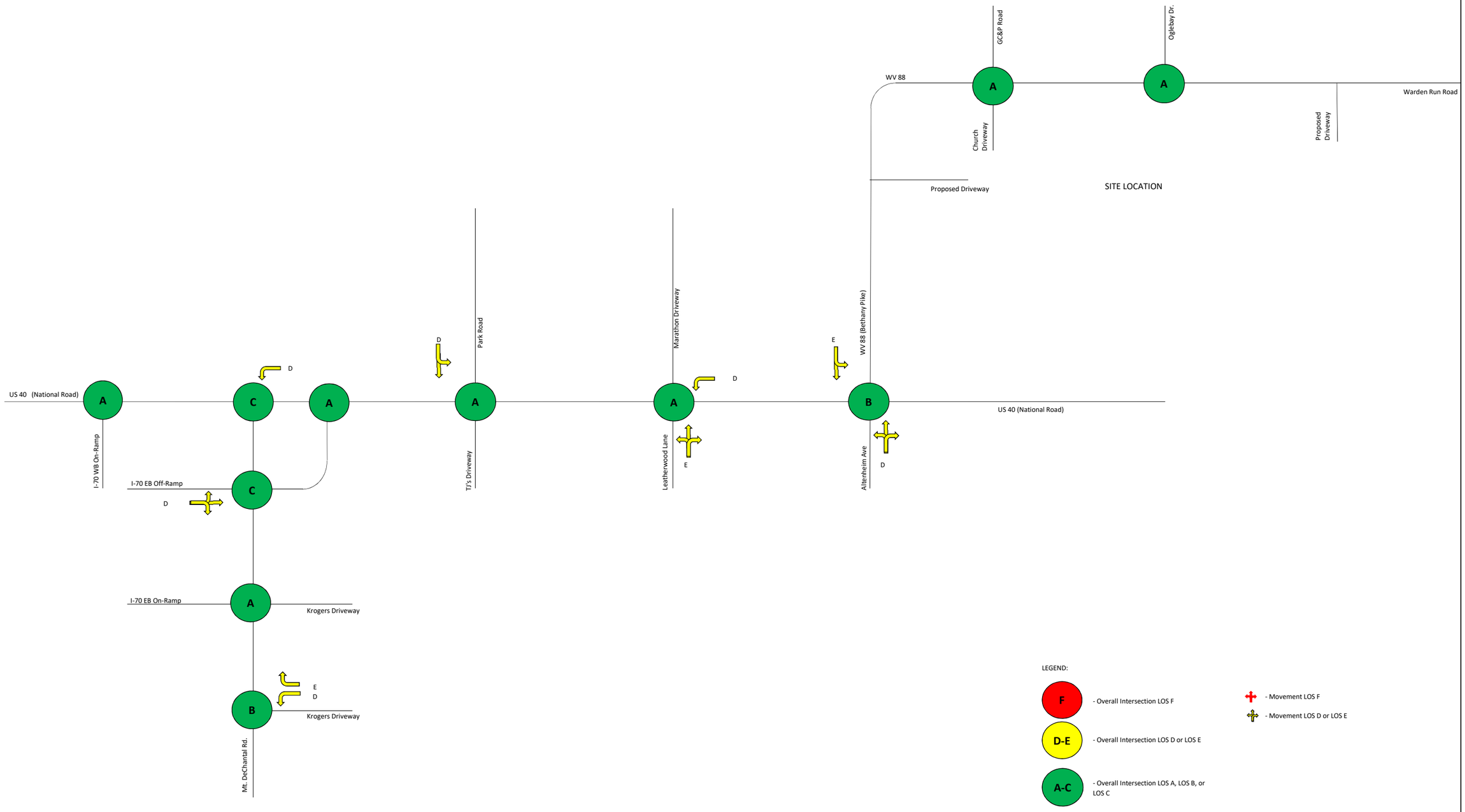
2020 Existing Conditions
PM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	7
SCALE:	NTS



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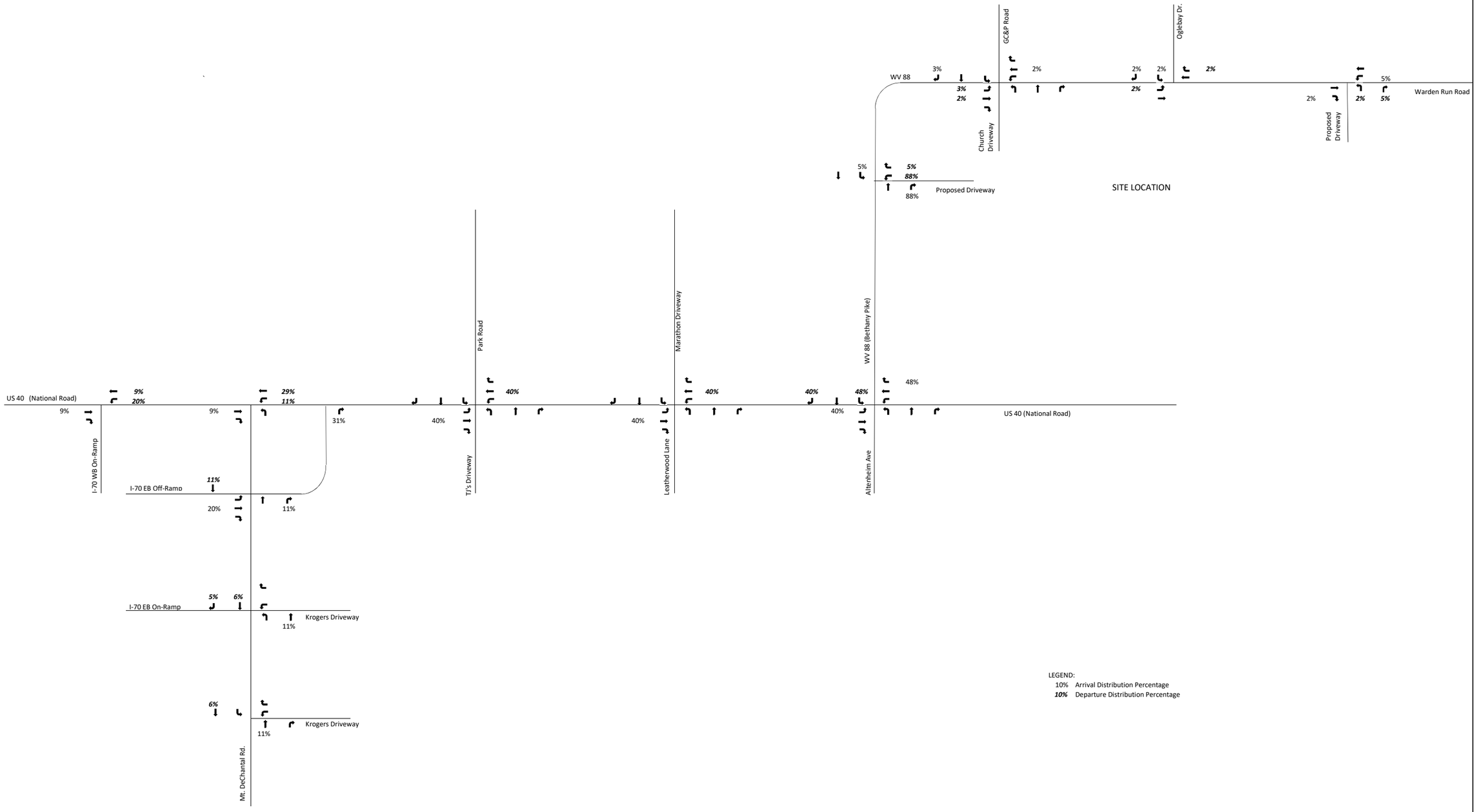
2020 Existing Conditions
Saturday Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	8
SCALE:	NTS



LEGEND:

10% Arrival Distribution Percentage

10% Departure Distribution Percentage

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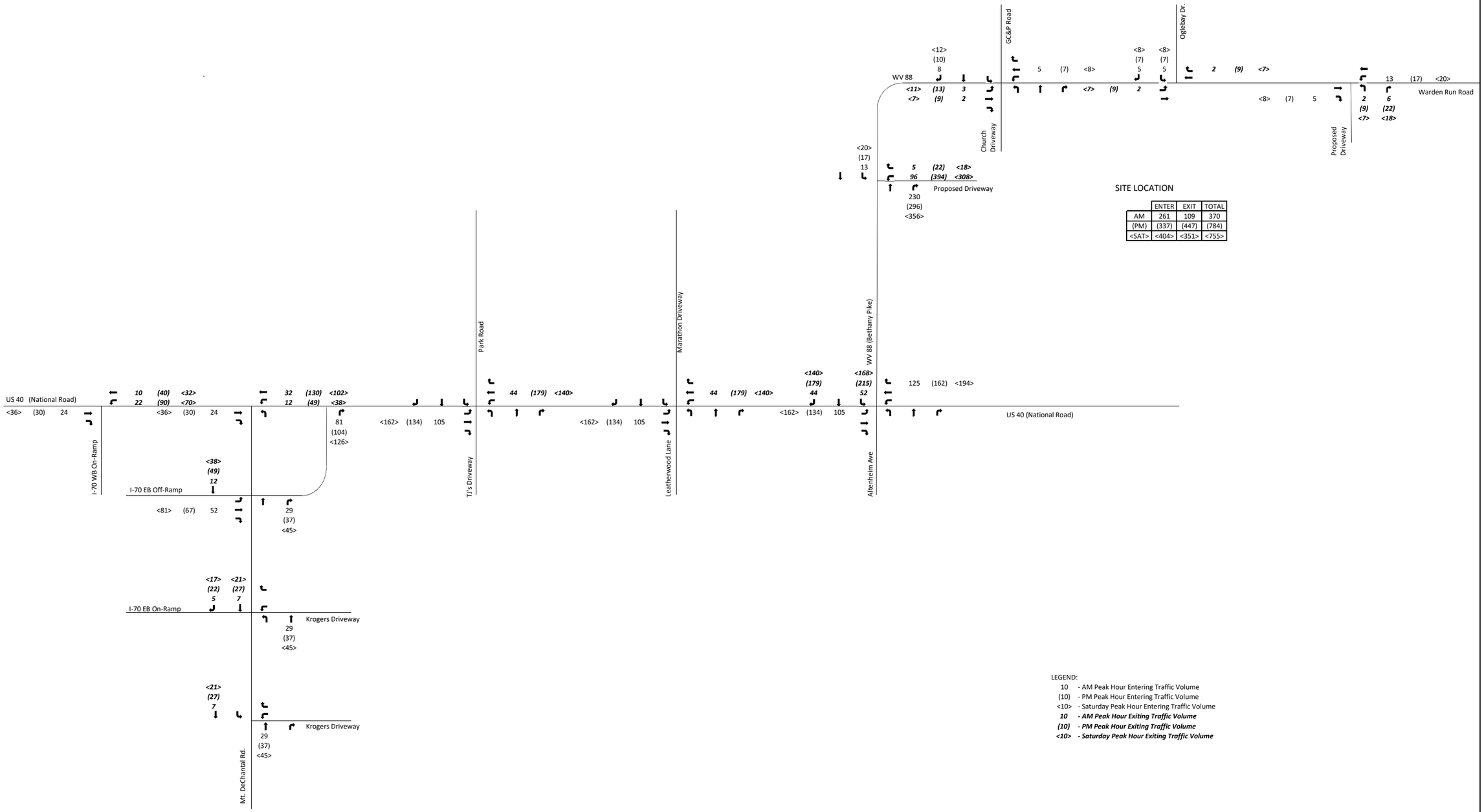
Gravity Model Trip Distribution

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	9
SCALE:	NTS



SITE LOCATION

	ENTER	EXIT	TOTAL
AM	261	109	370
(PM)	(337)	(447)	(784)
<SAT>	<404>	<351>	<755>

LEGEND:

10 - AM Peak Hour Entering Traffic Volume
(10) - PM Peak Hour Entering Traffic Volume
<10> - Saturday Peak Hour Entering Traffic Volume
10 ***- AM Peak Hour Exiting Traffic Volume***
(10) ***- PM Peak Hour Exiting Traffic Volume***
<10> ***- Saturday Peak Hour Exiting Traffic Volume***

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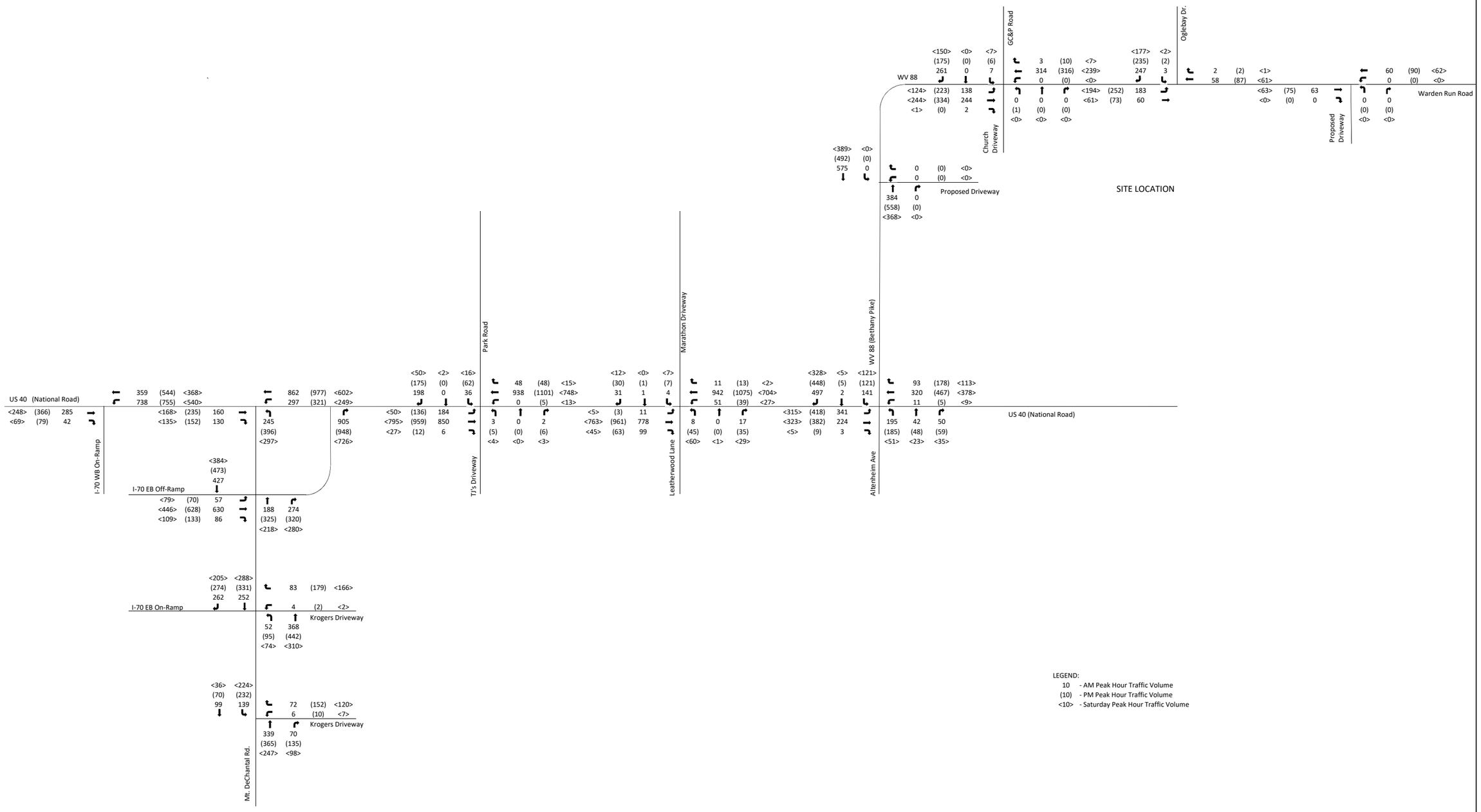
GC&P Site Generated Trips

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	10
SCALE:	NTS



LEGEND:
10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume

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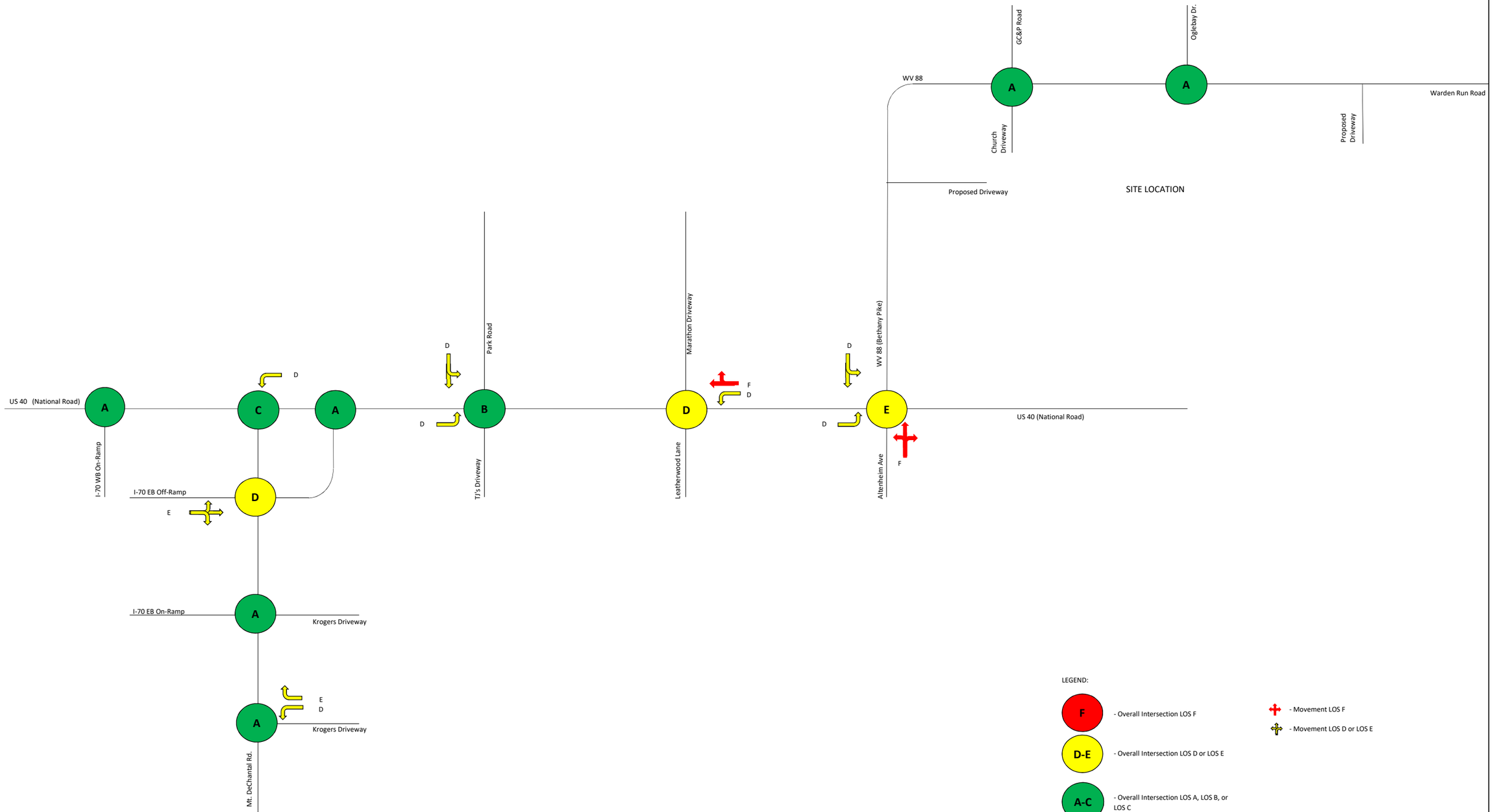
2030 No Build (Without Development) Conditions
Peak Hour Traffic Volumes

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	11
SCALE:	NTS



LEGEND:

F	- Overall Intersection LOS F
D-E	- Overall Intersection LOS D or LOS E
A-C	- Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

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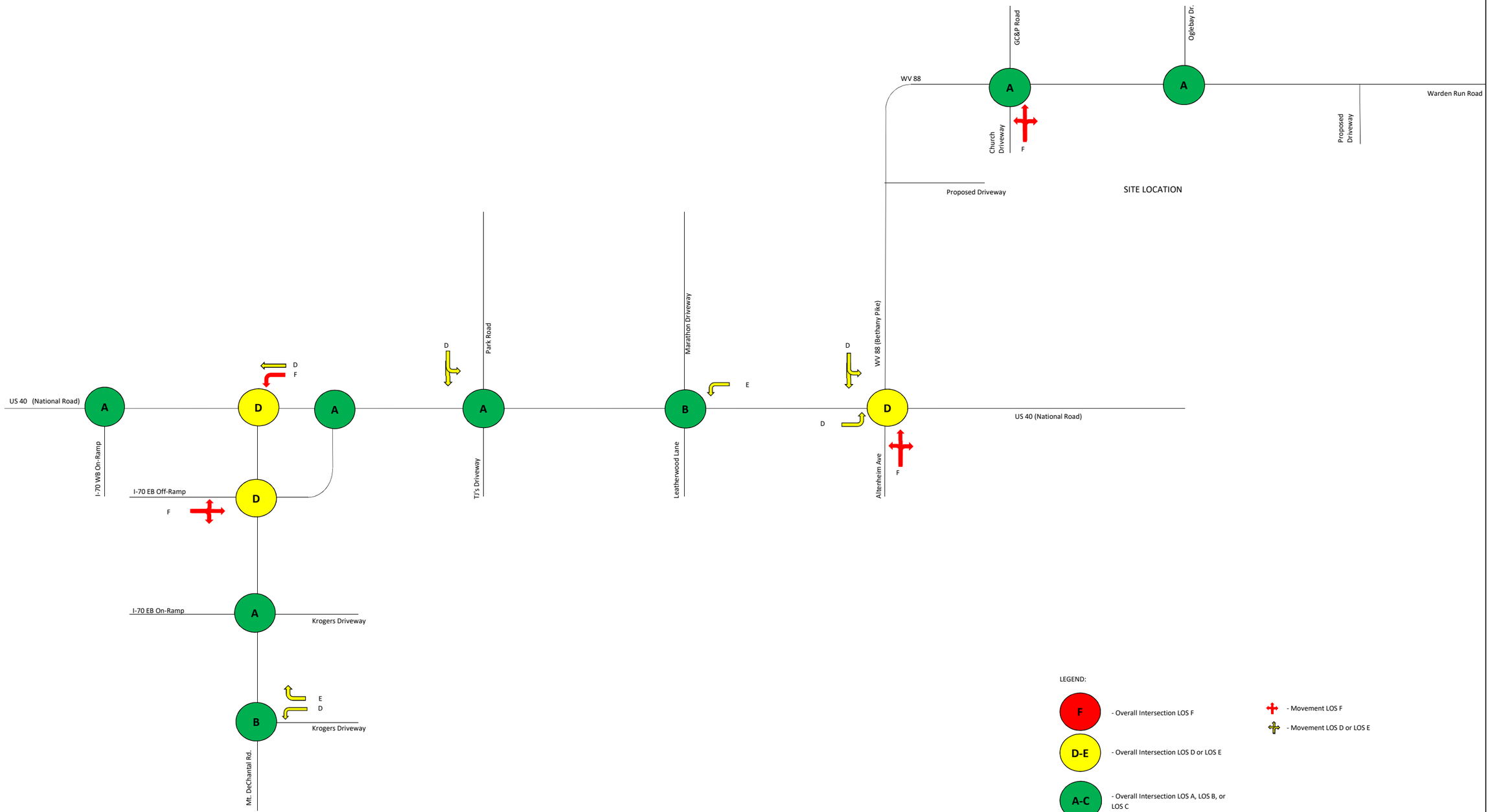
2030 No Build (Without Development) Conditions
AM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	12
SCALE:	NTS



LEGEND:

- F - Overall Intersection LOS F
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- A-C - Overall Intersection LOS A, LOS B, or LOS C
- - Movement LOS F
- - Movement LOS D or LOS E

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TRAFFIC IMPACT STUDY
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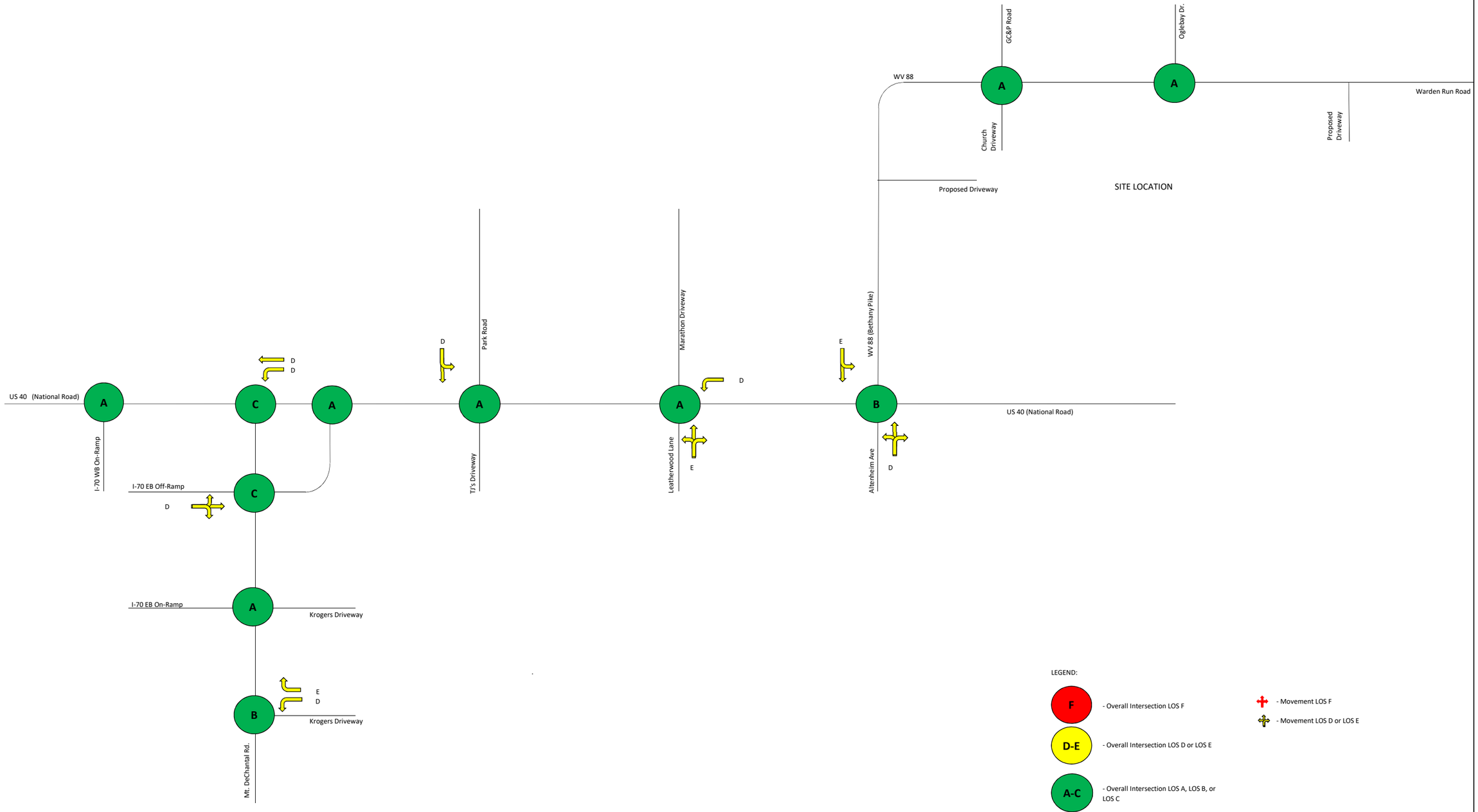
2030 No Build (Without Development) Conditions
PM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	13
SCALE:	NTS



LEGEND:

- F - Overall Intersection LOS F
- D-E - Overall Intersection LOS D or LOS E
- A-C - Overall Intersection LOS A, LOS B, or LOS C
- - Movement LOS F
- - Movement LOS D or LOS E

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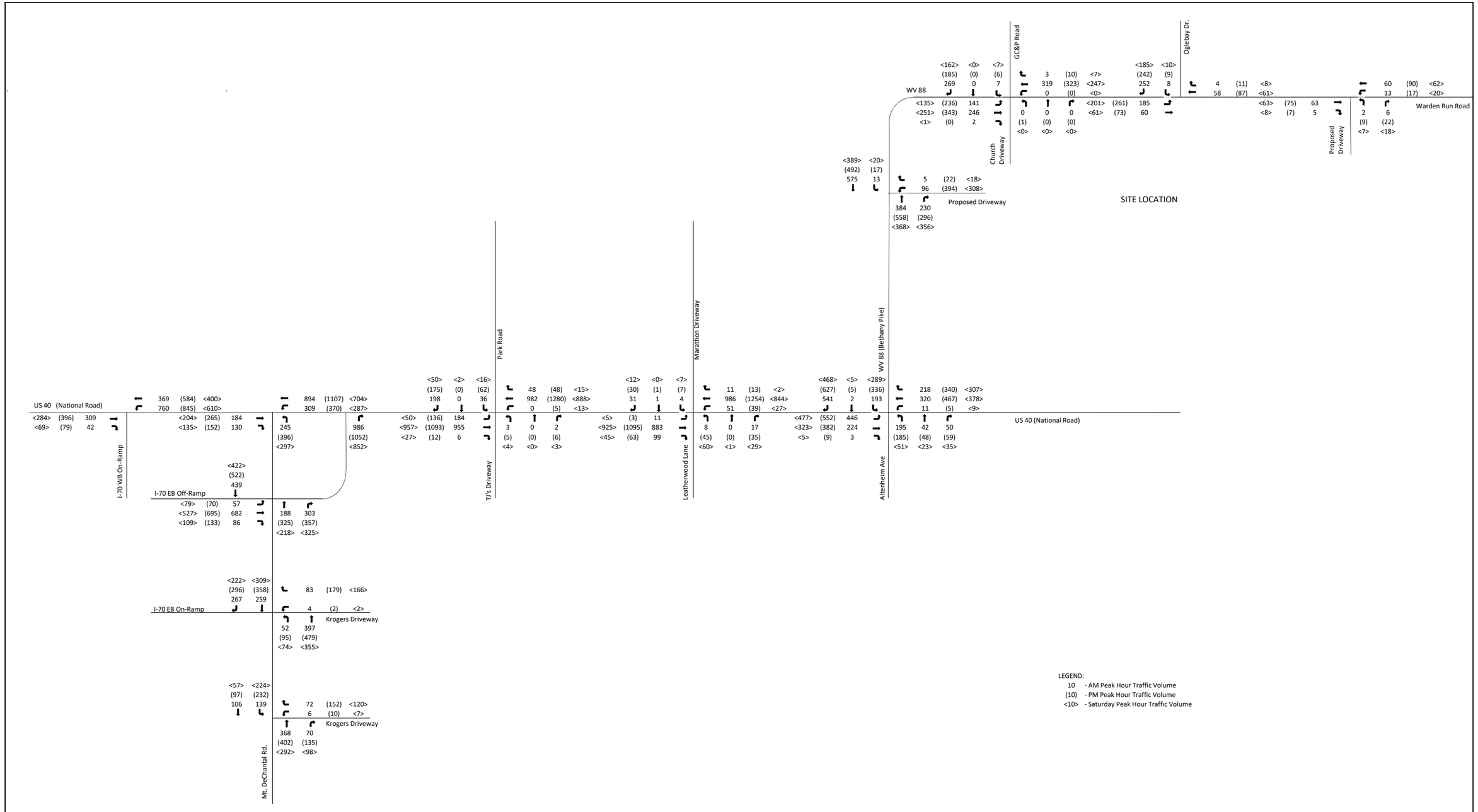
GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 No Build (Without Development) Conditions
Saturday Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	14
SCALE:	NTS



LEGEND:
10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume

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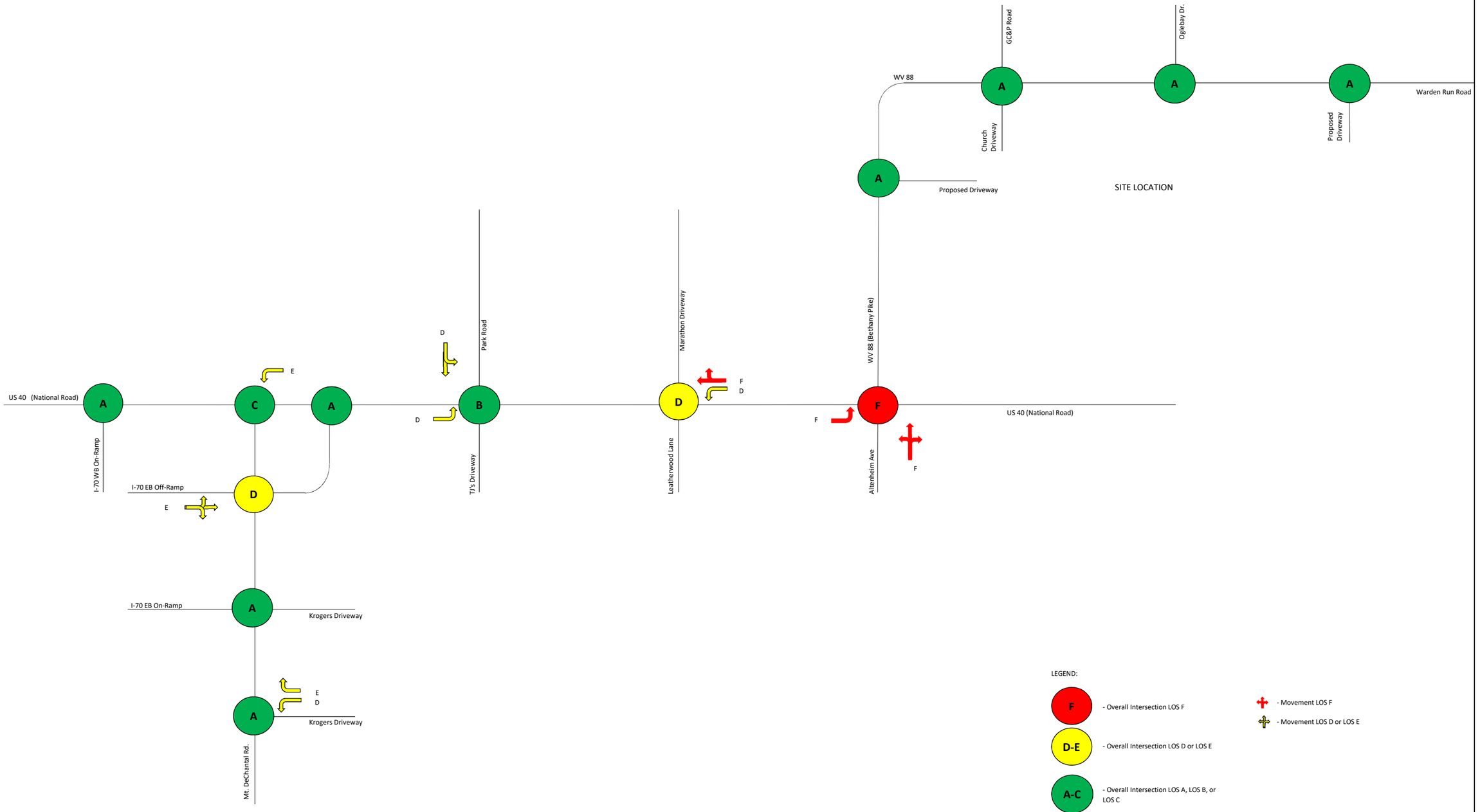
2030 Build (With Development) Conditions
Peak Hour Traffic Volumes

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	15
SCALE:	NTS



LEGEND:

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D-E	- Overall Intersection LOS D or LOS E
A-C	- Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

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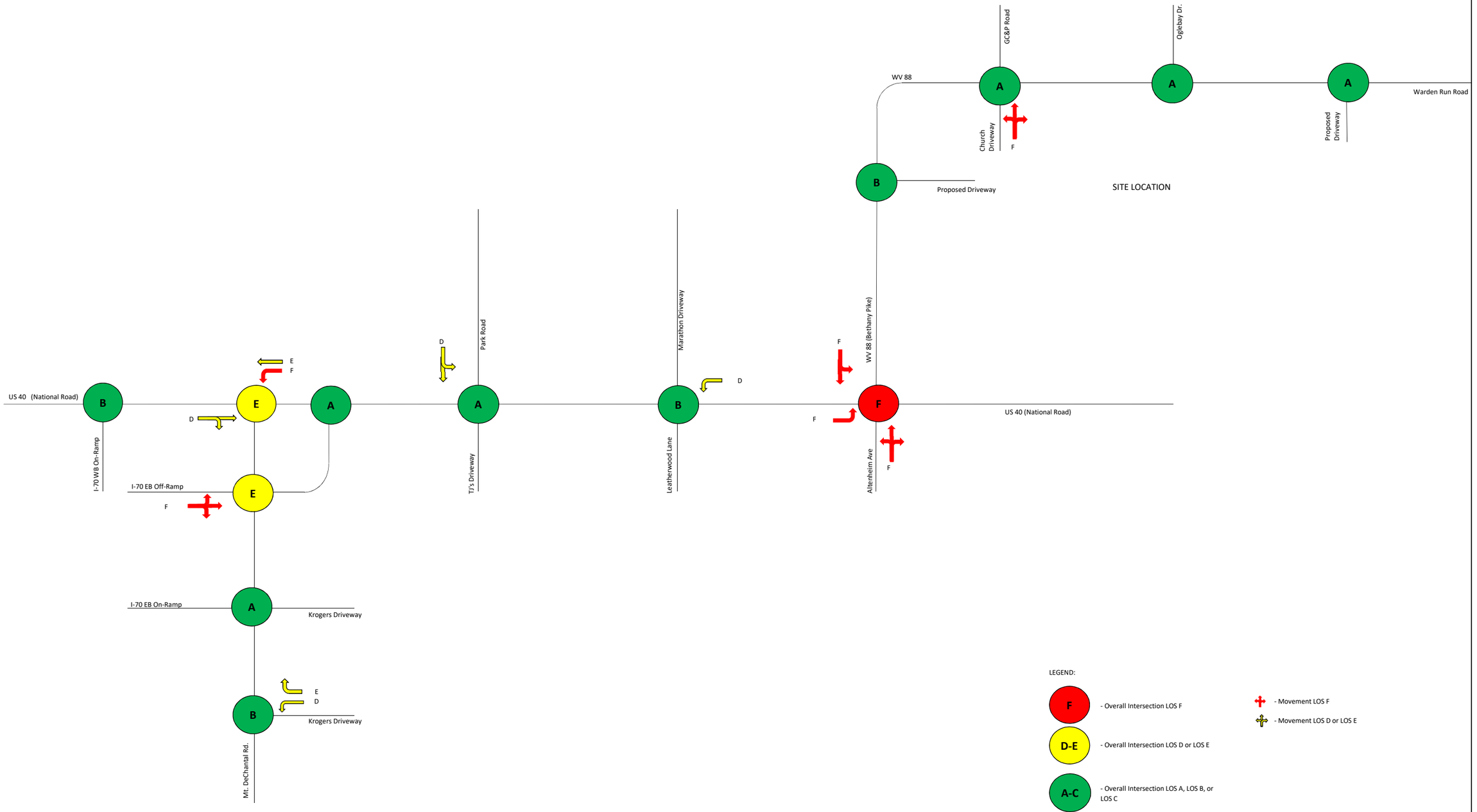
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
With NO Mitigation
AM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	16
SCALE:	NTS



LEGEND:

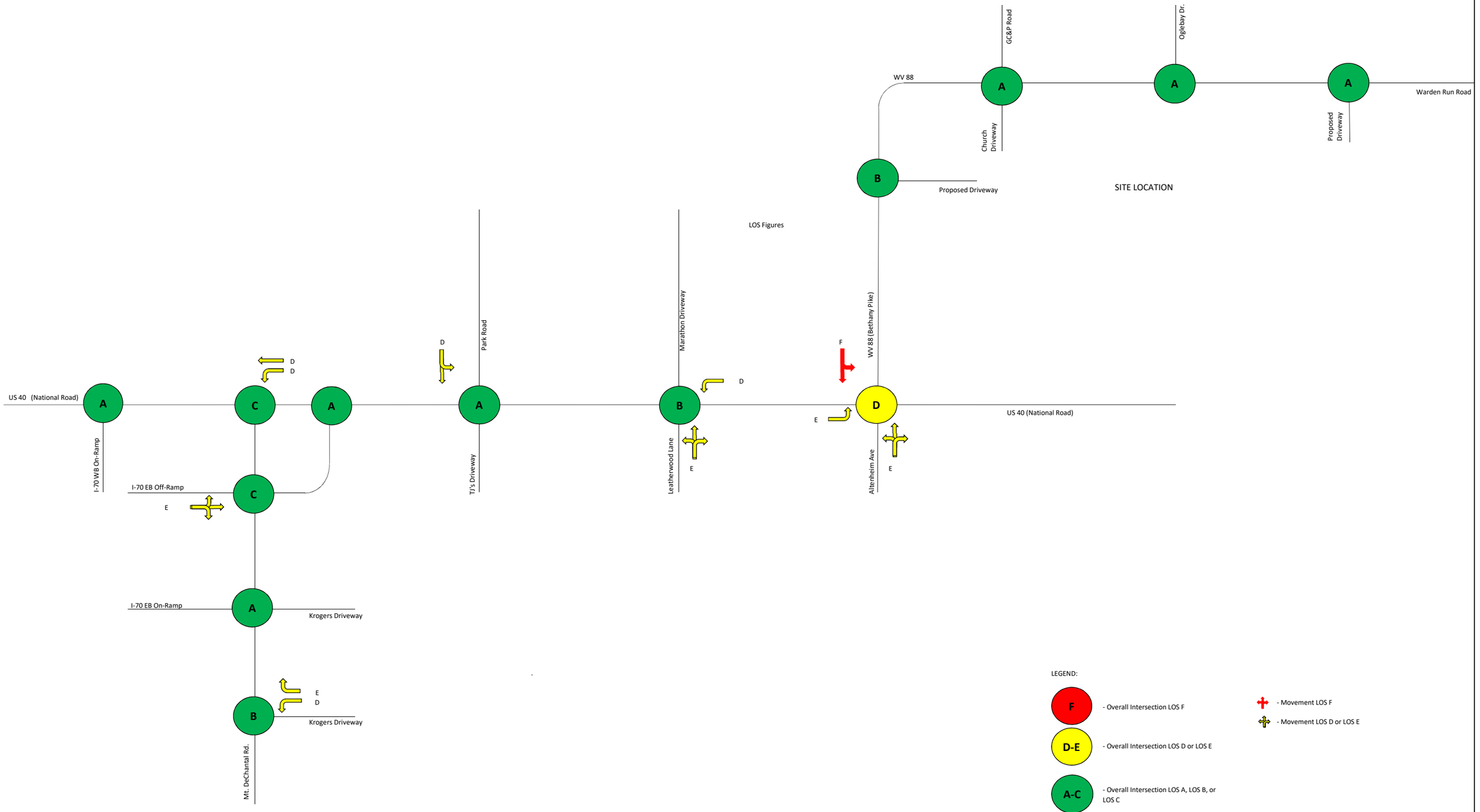
- F - Overall Intersection LOS F
- D-E - Overall Intersection LOS D or LOS E
- A-C - Overall Intersection LOS A, LOS B, or LOS C
- Movement LOS F
- Movement LOS D or LOS E

STAHL SHEAFFER ENGINEERING
650 LAKEWOOD CENTER
MORGANTOWN, WV 26508
PH: 304.381.4281
FX: 304-381-4299
WWW.SSE-LLC.COM

GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
With NO Mitigation
PM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	17
SCALE:	NTS



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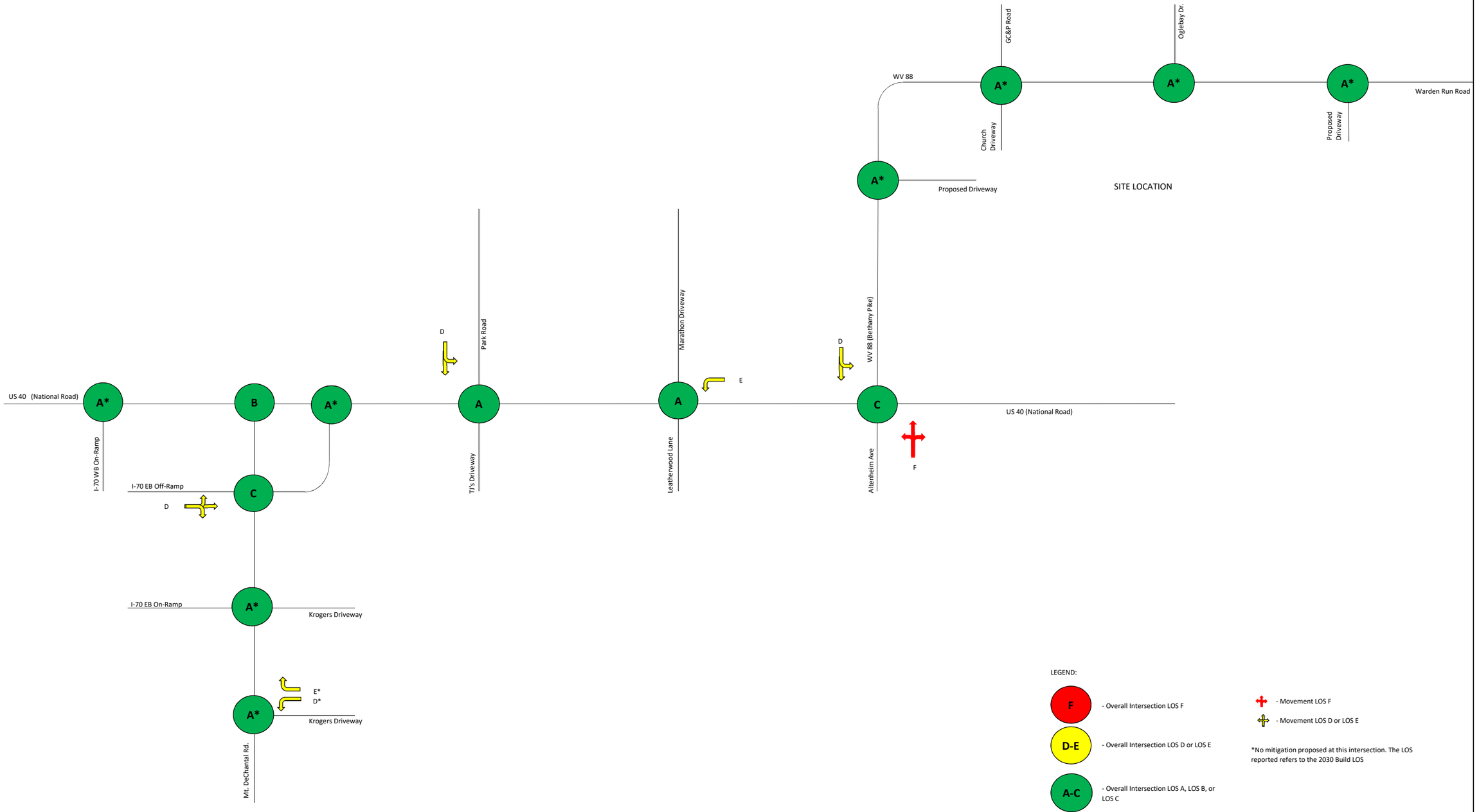
GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
With NO Mitigation
Saturday Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	18
SCALE:	NTS



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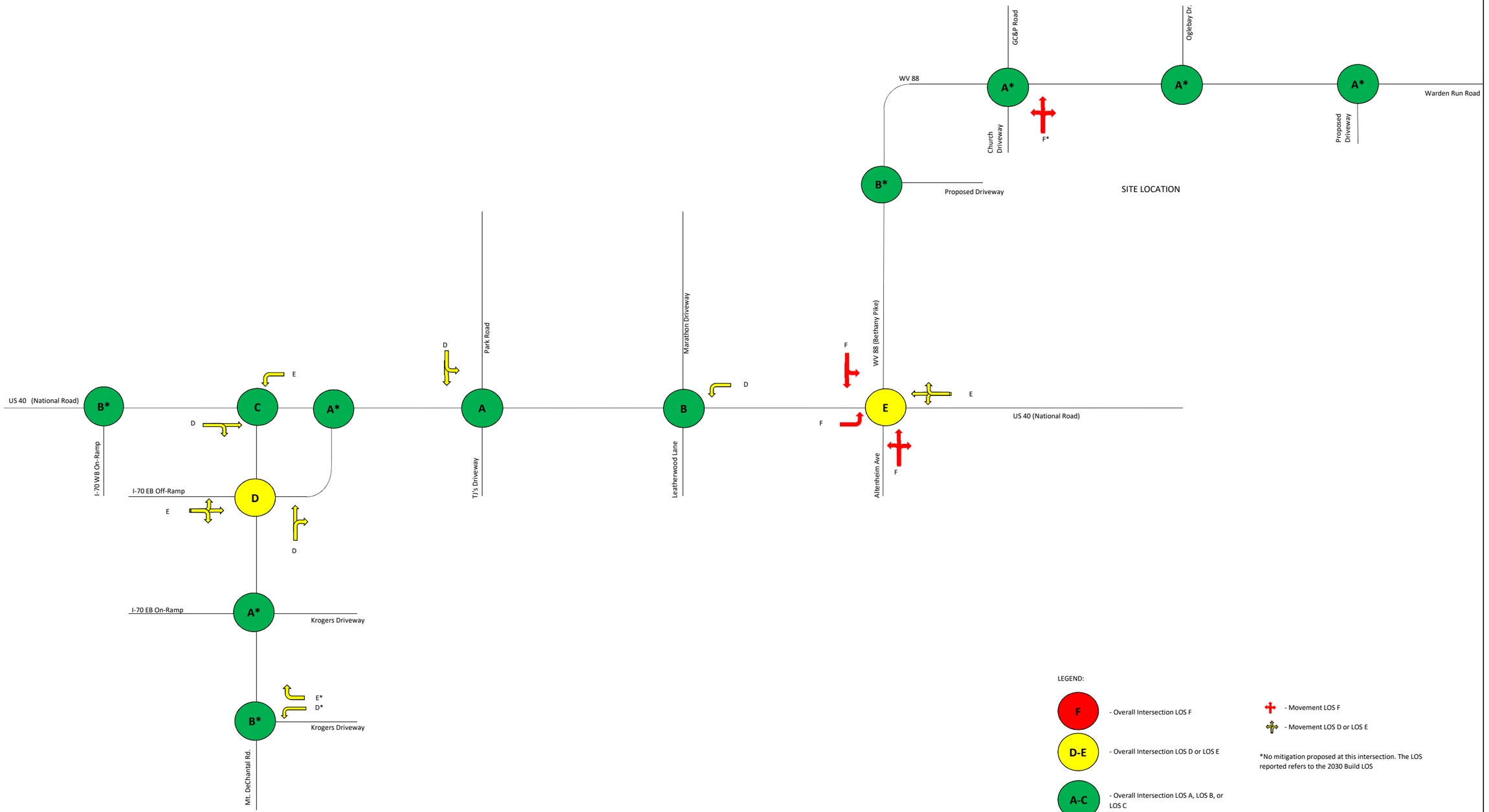
GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
Mitigated
AM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	19
SCALE:	NTS



LEGEND:

F	- Overall Intersection LOS F
D-E	- Overall Intersection LOS D or LOS E
A-C	- Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

*No mitigation proposed at this intersection. The LOS reported refers to the 2030 Build LOS

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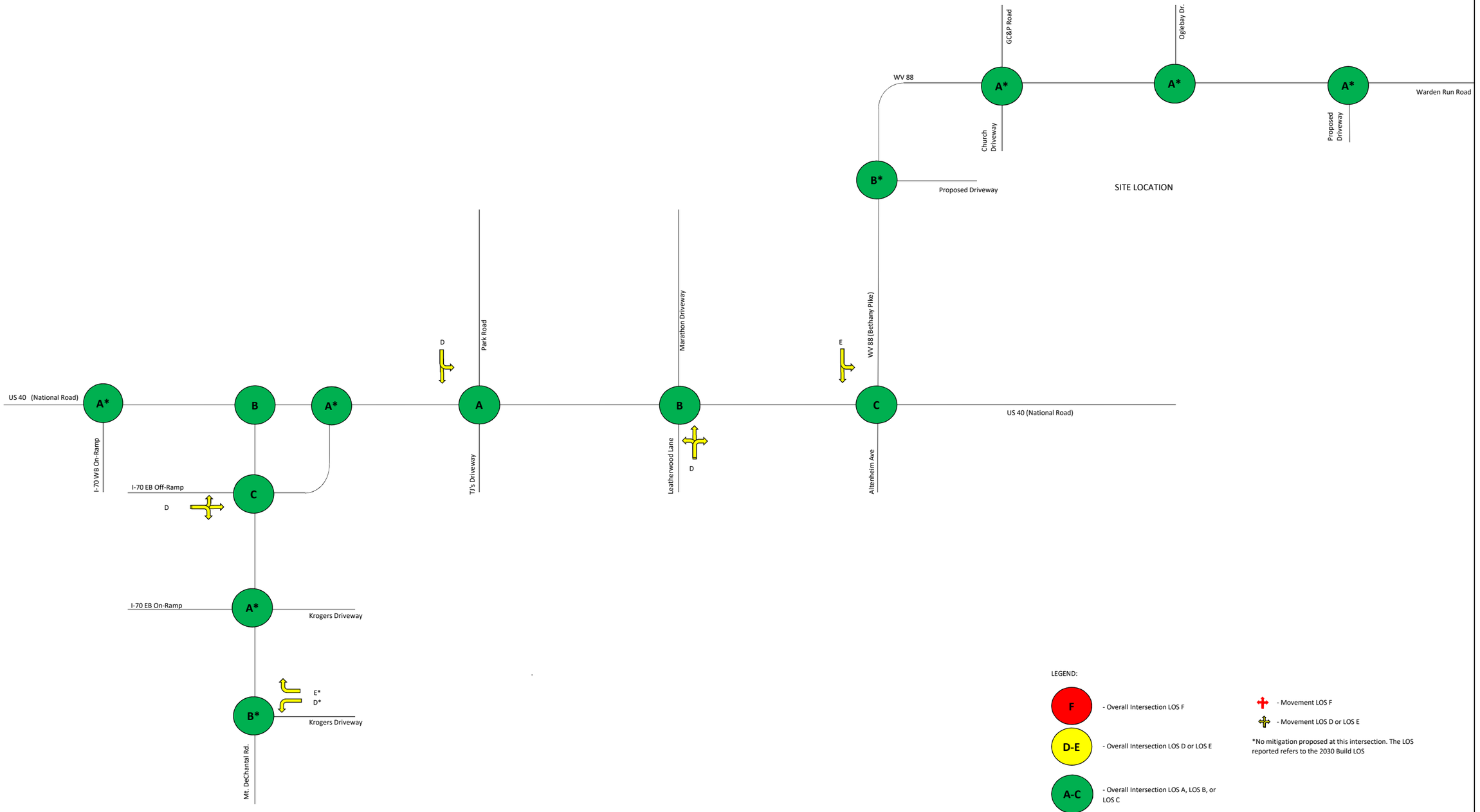
GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
Mitigated
PM Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	20
SCALE:	NTS



LEGEND:

F - Overall Intersection LOS F

D-E - Overall Intersection LOS D or LOS E

A-C - Overall Intersection LOS A, LOS B, or LOS C

- Movement LOS F
- Movement LOS D or LOS E

*No mitigation proposed at this intersection. The LOS reported refers to the 2030 Build LOS

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GC&P BETHANY PIKE (WV 88)
MIXED-USE VILLAGE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2030 Build (With Development) Conditions
Mitigated
Saturday Peak Hour Levels of Service

DATE:	MAY 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	21
SCALE:	NTS

STAHL SHEAFFER ENGINEERING

Appendix A. Project Correspondence

STAHL SHEAFFER ENGINEERING

Stahl Sheaffer Engineering, LLC
250 Lakewood Center
Morgantown, WV 26508
304.381.4281
www.sse-llc.com

January 20, 2020
Update

West Virginia Route 88 Mixed-Use Development

Traffic Impact Study Scope

Study Intersections

1. US Route 40 (National Road) and WV Route 88 (Bethany Pike) (Existing Signalized)
2. WV Route 88 (Bethany Pike) and GC&P Road (CR 7) (Existing Unsignalized)
3. US Route 40 (National Road) and Park Road (Existing Signalized)
4. US Route 40 (National Road) and Mt. DeChantal Road/I-70 EB Off-Ramp (Existing Signalized)
5. Mt. DeChantal Road and I-70 EB On-Ramp/Krogers Driveway (Existing Unsignalized)
6. Mt. DeChantal Road and Krogers Driveway (Existing Signalized)
7. US Route 40 (National Road) and I-70 WB On-Ramp (Existing Unsignalized)
8. WV Route 88 and Warden Run Road (CR 15) (Existing Unsignalized)
9. WV Route 88 (Bethany Pike) and Proposed Site Driveway (Proposed Signalized)
10. Warden Run Road (CR 15) and Proposed Site Driveway (Proposed Unsignalized)

Peak Hours to be Studied

- Friday Morning (7:00 AM to 9:00 AM)
- Friday Afternoon (3:00 PM to 6:00 PM)
- Saturday Mid-day (11:00 AM to 2:00 PM)

Traffic Conditions to be Studied:

- Existing Year 2020 Conditions
- Year of Full Build-Out Conditions Without Proposed Development
- Year of Full Build-Out Conditions With Proposed Development

Trip Generation and Distribution:

- Utilize Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*
- Guidelines for Mixed-Use Development per ITE's *Trip Generation Handbook, 3rd Edition*
- Guidelines for Pass-by Trips per ITE's *Trip Generation Handbook, 3rd Edition*
- Distribution based on a population gravity model for a 15-minute travel time radius

Traffic Analysis

- **Intersection capacity analysis** (Synchro 10 software, *Highway Capacity Manual 6th Edition* Standards, for signalized and unsignalized intersections. SIDRA Intersection 8 software, *Highway Capacity Manual 6th Edition* Standards, for roundabouts, if required.)
- **Intersection queue analysis** (Synchro 10 software, *95th Percentile Queues*, for signalized and unsignalized intersections. SIDRA Intersection 8 software, *95th Percentile Queues*, for roundabouts, if required.)
- **Traffic signal warrant analysis** (*MUTCD* Standards), where applicable.
- **Auxiliary turn lane warrant analysis** (AASHTO Greenbook), at proposed site driveways.

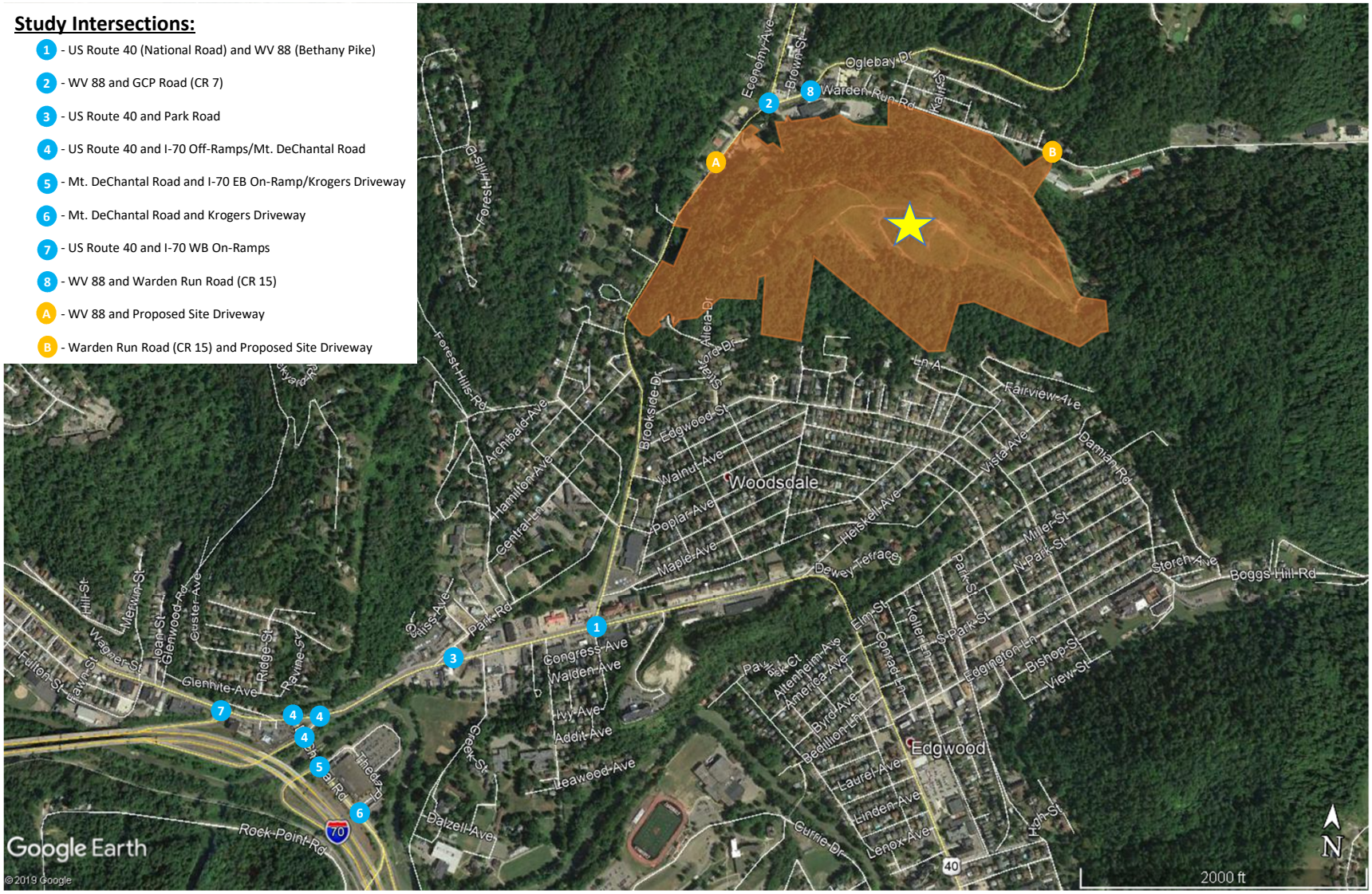
Copy | P19-609 File

Study Intersections:

1. - US Route 40 (National Road) and WV 88 (Bethany Pike)
2. - WV 88 and GCP Road (CR 7)
3. - US Route 40 and Park Road
4. - US Route 40 and I-70 Off-Ramps/Mt. DeChantal Road
5. - Mt. DeChantal Road and I-70 EB On-Ramp/Krogers Driveway
6. - Mt. DeChantal Road and Krogers Driveway
7. - US Route 40 and I-70 WB On-Ramps
8. - WV 88 and Warden Run Road (CR 15)

A - WV 88 and Proposed Site Driveway

B - Warden Run Road (CR 15) and Proposed Site Driveway



Legend

Site Location

Turning Movement Count Location

Proposed Site Driveway Location

STAHL SHEAFFER ENGINEERING

WV 88 Mixed-Use Development TIS – Site Location and Study Intersections

Turning Movement Count Times:
Friday Morning (7:00 AM to 9:00 AM)
Friday Afternoon (3:00 PM to 6:00 PM)
Saturday Mid-day (11:00 AM to 2:00 PM)

Prepared for: GC&P Development LLC

State: West Virginia

Project Number: 19-609

Date Prepared: 1/20/2020
Update

County: Ohio

Figure 1

Alex B. Fisher

From: Melissa D. Southern
Sent: Wednesday, February 5, 2020 10:11 AM
To: Cramer, David E
Cc: Meadows, Donald R; Hicks, Paul F
Subject: RE: [EXT]: FW: [External] GC&P Development - Revised TIS Scope
Attachments: 2020-01-20 TIS Scope - REV 1 update.pdf

Thank you Dave.

Provided with this email is an update to the January 20, 2020 TIS Scope, correcting the roadway references, for your records.

Please feel free to reach out to me if you have any questions or need anything additional.

Thanks and have a great day!
Melissa

Melissa D. Southern, E.I.T.
Traffic Analyst

Stahl Sheaffer Engineering, LLC
4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
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F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

From: Cramer, David E <David.E.Cramer@wv.gov>
Sent: Wednesday, February 05, 2020 8:31 AM
To: Melissa D. Southern <MSouthern@sse-llc.com>
Cc: Meadows, Donald R <Donald.R.Meadows@wv.gov>; Hicks, Paul F <Paul.F.Hicks@wv.gov>
Subject: [EXT]: FW: [External] GC&P Development - Revised TIS Scope

The proposed scope is acceptable to DOH, however please reference correctly WV 88 (not CR 88) and CR 15 (not WV 15). When the TIS is complete, provide 6 printed copies, 2 CDs or USBs with the TIS, and an electronic version to my office. Same TIS is to be submitted by Developer to the City of Wheeling, Ohio County Commission, and the BelOMar MPO. If additional info is needed, let me know.

David E. Cramer, PE
West Virginia Department of Transportation
Commissioner's Office of Economic Development
1900 Kanawha Blvd., E
Building 5, Room 129
Charleston, WV 25305
304-414-6697
David.E.Cramer@wv.gov

From: Melissa D. Southern <MSouthern@sse-llc.com>
Sent: Monday, January 20, 2020 8:57 AM
To: Meadows, Donald R <Donald.R.Meadows@wv.gov>; Cramer, David E <David.E.Cramer@wv.gov>
Cc: Hicks, Paul F <Paul.F.Hicks@wv.gov>; Miller, Luke I <Luke.I.Miller@wv.gov>; dsgray1044@aol.com; kcoyne.gcpd@gmail.com; Joe Guley <jguley@sse-llc.com>; Scott R. Popovich <spopovich@sse-llc.com>
Subject: [External] GC&P Development - Revised TIS Scope

Good Morning,

Provided with the email is the updated GC&P Development TIS scope, for your review and concurrence. The TIS scope has been revised to expand the study intersections, traffic conditions to be studied, and traffic analyses required as part of the TIS. The study intersections are shown graphically in a figure included with the revised TIS scope.

Please feel free to contact me if you have any questions or require anything additional.

Thanks,
Melissa

Melissa D. Southern, E.I.T.
Traffic Analyst

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Monroeville, PA 15146
O: 412.229.8583x14
F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

Alex B. Fisher

From: Cramer, David E <David.E.Cramer@wv.gov>
Sent: Wednesday, February 5, 2020 8:31 AM
To: Melissa D. Southern
Cc: Meadows, Donald R; Hicks, Paul F
Subject: [EXT]: FW: [External] GC&P Development - Revised TIS Scope
Attachments: 2020-01-20 TIS Scope - REV 1.pdf

The proposed scope is acceptable to DOH, however please reference correctly WV 88 (not CR 88) and CR 15 (not WV 15). When the TIS is complete, provide 6 printed copies, 2 CDs or USBs with the TIS, and an electronic version to my office. Same TIS is to be submitted by Developer to the City of Wheeling, Ohio County Commission, and the BelOMar MPO. If additional info is needed, let me know.

David E. Cramer, PE
West Virginia Department of Transportation
Commissioner's Office of Economic Development
1900 Kanawha Blvd., E
Building 5, Room 129
Charleston, WV 25305
304-414-6697
David.E.Cramer@wv.gov

From: Melissa D. Southern <MSouthern@sse-llc.com>
Sent: Monday, January 20, 2020 8:57 AM
To: Meadows, Donald R <Donald.R.Meadows@wv.gov>; Cramer, David E <David.E.Cramer@wv.gov>
Cc: Hicks, Paul F <Paul.F.Hicks@wv.gov>; Miller, Luke I <Luke.I.Miller@wv.gov>; dsgray1044@aol.com; kcoyne.gcpd@gmail.com; Joe Guley <jguley@sse-llc.com>; Scott R. Popovich <spopovich@sse-llc.com>
Subject: [External] GC&P Development - Revised TIS Scope

Good Morning,

Provided with the email is the updated GC&P Development TIS scope, for your review and concurrence. The TIS scope has been revised to expand the study intersections, traffic conditions to be studied, and traffic analyses required as part of the TIS. The study intersections are shown graphically in a figure included with the revised TIS scope.

Please feel free to contact me if you have any questions or require anything additional.

Thanks,
Melissa

Melissa D. Southern, E.I.T.

Traffic Analyst

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Monroeville, PA 15146
O: 412.229.8583x14
F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

Alex B. Fisher

From: Meadows, Donald R <Donald.R.Meadows@wv.gov>
Sent: Monday, February 10, 2020 11:12 AM
To: Melissa D. Southern
Cc: Ellars, Daniel L; McCracken, Julius A
Subject: [EXT]: RE: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Melissa,
Based on what you were provided, and how it is typically relayed on similar projects, I would recommend using 1.3% per year for the growth rate.

Dan/Julius,
Could you please provide any signal plans and available timings for the intersections listed below. If no timings are available for any of the intersections, please indicate that as well so the consultant knows they will need to obtain some general timings from the field.

Let me know if you have any questions or if you need any additional information. THANKS>DON

Donald R. Meadows
West Virginia Division of Highways
Traffic Engineering - Operations
Building 5, Room A-550
1900 Kanawha Blvd. E.
Charleston, WV 25305
Office Ph: (304) 414-7354
Cell Ph: (304) 382-3160
Fax: (304) 558-1209

From: Melissa D. Southern <MSouthern@sse-llc.com>
Sent: Monday, February 10, 2020 10:58 AM
To: Meadows, Donald R <Donald.R.Meadows@wv.gov>
Subject: RE: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Don,

Thanks for your assistance with the growth rate. Lee replied at the end of last week indicating that a 20-year growth rate for the City of Wheeling is 1.337. I sent Lee a follow-up question about this growth, but I didn't know if you would be able to clarify? Since this is a 20-year growth rate, I'm assuming that the annual growth rate be (1.337 -1.0) / 20 = 0.01685, or 1.685% per year linear? Or is the rate provided, 1.337%, to be applied per year (linear or compounded)?

Also, would you be able to provide us the traffic signal permit plans for the following signalized study intersections (or point me in the direction of who to contact?):

- US Route 40 (National Road) & I-70 Off-Ramp/Mt. DeChantal Road
- US Route 40 (National Road) & Park Road
- US Route 40 (National Road) & WV 88 (Bethany Pike)
- Mt. DeChantal Road & Kroger's Driveway

Thanks again for your assistance with everything! It is greatly appreciated.

Have a great week!
Melissa

Melissa D. Southern, E.I.T.
Traffic Analyst

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4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
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F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

From: Meadows, Donald R <Donald.R.Meadows@wv.gov>
Sent: Wednesday, February 05, 2020 11:54 AM
To: Melissa D. Southern <MSouthern@sse-llc.com>
Subject: [EXT]: FW: [External] FW: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

I was able to get in touch with Leland and he forwarded the request to another individual in his office for handling. Not sure if Lee will send the information directly to you or if he will send it to me. If he sends to me I will forward it to you ASAP.

Donald R. Meadows
West Virginia Division of Highways
Traffic Engineering - Operations
Building 5, Room A-550
1900 Kanawha Blvd. E.
Charleston, WV 25305
Office Ph: (304) 414-7354
Cell Ph: (304) 382-3160
Fax: (304) 558-1209

From: Johnson, Leland W <Leland.W.Johnson@wv.gov>
Sent: Wednesday, February 5, 2020 11:51 AM
To: wvdoh.datasupply@geocounts.com
Cc: lee.kaufman@transmetric.com; Hori, Emiko <Emiko.Hori@wv.gov>; Elsayed, Gehan M <Gehan.M.Elsayed@wv.gov>; Meadows, Donald R <Donald.R.Meadows@wv.gov>
Subject: FW: [External] FW: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Lee,

Please respond to this request ASAP.

Leland

From: Meadows, Donald R <Donald.R.Meadows@wv.gov>
Sent: Wednesday, February 5, 2020 11:46 AM

To: Johnson, Leland W <Leland.W.Johnson@wv.gov>
Subject: FW: [External] FW: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

For your handling and response. THANKS>DON

Donald R. Meadows
West Virginia Division of Highways
Traffic Engineering - Operations
Building 5, Room A-550
1900 Kanawha Blvd. E.
Charleston, WV 25305
Office Ph: (304) 414-7354
Cell Ph: (304) 382-3160
Fax: (304) 558-1209

From: Melissa D. Southern <MSouthern@sse-llc.com>
Sent: Wednesday, February 5, 2020 9:02 AM
To: Meadows, Donald R <Donald.R.Meadows@wv.gov>
Subject: [External] FW: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Good Morning Don.

Could you please assist me with obtaining the traffic growth rate for the City of Wheeling for use in the GC&P Mixed Use Development TIS? I'm not sure if I reached out to the correct staff with the Planning Division?

Thanks,
Melissa

Melissa D. Southern, E.I.T.
Traffic Analyst

Stahl Sheaffer Engineering, LLC
4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
O: 412.229.8583x14
F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

From: Melissa D. Southern
Sent: Thursday, January 23, 2020 9:53 AM
To: Johnson, Leland W <Leland.W.Johnson@wv.gov>; Elsayed, Gehan M <Gehan.M.Elsayed@wv.gov>
Subject: Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Good Morning Leland and Gehan,

Stahl Sheaffer Engineering LLC has been retained by GC&P Development to complete a Traffic Impact Study (TIS) for their proposed development to be located along Bethany Pike Road (WV 88) in the City of Wheeling, Ohio County, WV. Based on the outcome of our TIS Scoping Meeting with representatives from WVDOH Central Office (Don Meadows and Dave Cramer) and District 6 (Paul Hicks), we will need to project existing traffic to the year of full-buildout of the development (by approximately 5-years). At this time, we are requesting the latest growth rate for our study area to utilize in forecasting future traffic volumes at our study intersections for analysis purposes.

Provided with this email is the scope of study and a map of the study area and study intersections, for your use.

Please feel free to contact me if you have any questions or require anything additional.

Sincerely,
Melissa Southern

Melissa D. Southern, E.I.T.
Traffic Analyst

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4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
O: 412.229.8583x14
F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

From: Melissa D. Southern
Sent: Wednesday, January 08, 2020 1:52 PM
To: Johnson, Leland W <Leland.W.Johnson@wv.gov>; wvdoh.datasupply@geocounts.com
Subject: RE: [EXT]: FW: [External] Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Good Afternoon Leland,

I'm following up on the email below. We have not received the growth rate for the location requested. Please let me know if you need anything additional to process this request.

Also, please feel free to contact me at any time if you have any questions or require any additional information.

Thank you very much in advance for your assistance!

Happy New Year!
Melissa

Melissa D. Southern, E.I.T.
Traffic Analyst

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4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
O: 412.229.8583x14
F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

From: Johnson, Leland W <Leland.W.Johnson@wv.gov>
Sent: Thursday, December 05, 2019 9:14 AM
To: wvdoh.datasupply@geocounts.com
Cc: Melissa D. Southern <MSouthern@sse-llc.com>
Subject: [EXT]: FW: [External] Traffic Growth Rate for the City of Wheeling, Ohio County, WV

Lee,

Please provide the growth rate for this location.

Leland

From: Melissa D. Southern <MSouthern@sse-llc.com>
Sent: Thursday, December 5, 2019 9:12 AM
To: Johnson, Leland W <Leland.W.Johnson@wv.gov>
Subject: [External] Traffic Growth Rate for the City of Wheeling, Ohio County, WV

CAUTION: External email. Do not click links or open attachments unless you verify sender.

Good Morning Leland.

I wondered if you would be able to assist me in obtaining a growth rate for Wheeling? I wasn't sure if you or someone at the local MPO (Belomar Regional Council) would be best to contact to obtain a growth rate for this region? Stahl Sheaffer has been contacted by a developer to do preliminary traffic analyses for a proposed development that's in its planning/feasibility stage. The approximate location of the site is northeast of downtown Wheeling.

Please feel free to contact me at any time if you have any questions or require any additional information.

Thank you very much in advance for your assistance!

Sincerely,
Melissa Southern

Melissa D. Southern, E.I.T.
Traffic Analyst

Stahl Sheaffer Engineering, LLC
4055 Monroeville Boulevard, Suite 400
Monroeville, PA 15146
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F: 412.229.8682
msouthern@sse-llc.com
sse-llc.com

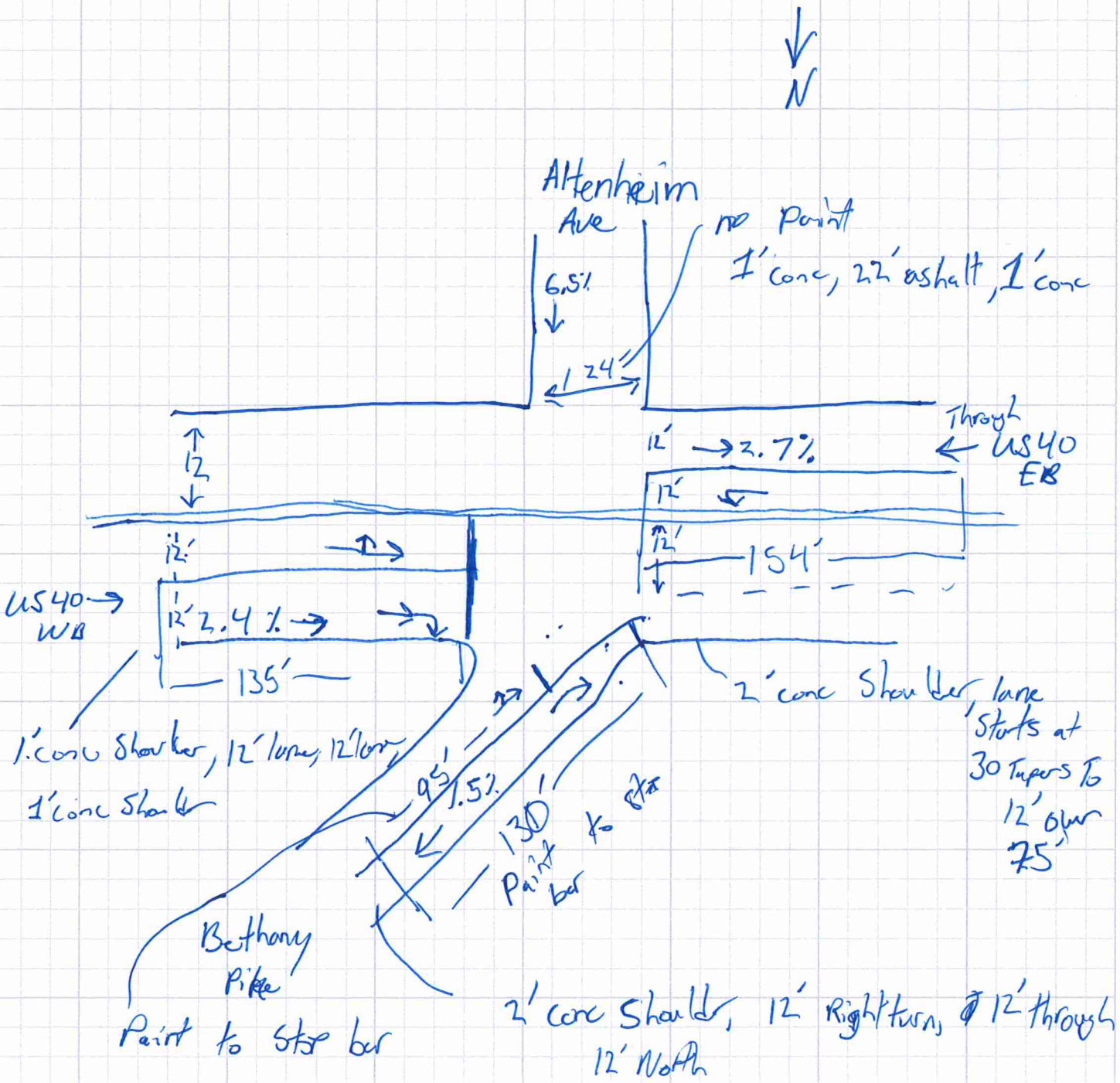
STAHL SHEAFFER ENGINEERING

Appendix B. Field Notes and Signal Plans

STAHL SHEAFFER ENGINEERING

Project:
Subject: US40 - W88
Page: of Date:
By: Chk'd:

#1



#1

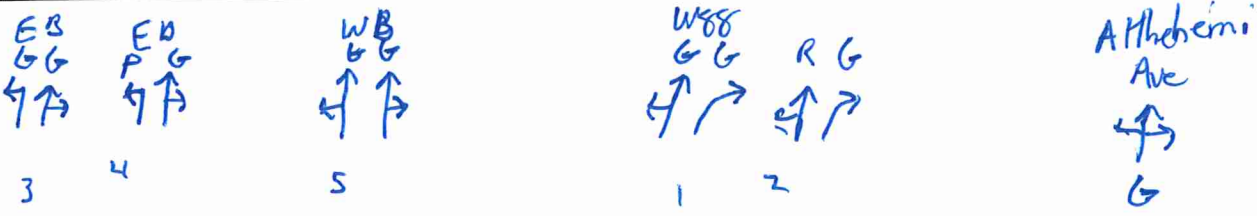
Signal Timing Field Observation
Project Number:
Project Name:

NOTES:

Date: 2/17/2020
Time: 13:00
Collected By:

Intersection: US-46 & WV 88

		Mainline (Direction):						Side Street:					
	Interval: (sketch in phasing/ operation)												Cross walk all red
Run 1	G	8.5	1:01		53			33	20			24.5	
	Y	3	3.5		4			3.5	4			3.5	
	AR		1		1.0			1.5					19
	Cycle Length	1:45 ~~1:43~~										2:05	
Run 2	G	20	1:00		57			20	8	6		31	
	Y	3.5	3.5		3.5			3	3.5			3.5	
	AR		1		1			1.5					
	Cycle Length	2:04											
Run 3	G	9	1:10		55			16	15			23	
	Y	3.5	3.5		4			4	3			3.5	
	AR		1		1			1.5					
	Cycle Length	1:39										1:46	
Run 4	G	22	1:15		1:08			24	12			25	
	Y	3.5	3.5		3.5			3.5	3.5			3.5	
	AR		1		1			1.5					
	Cycle Length				1:58			1:54					
Run 5	G	19	1:06		44			12	19			31	
	Y	3.5	3.5		3			3.5	3.5			4	
	AR		1		1			1.5					
	Cycle Length												
AVERAGE	G												
	Y												
	AR												
	Cycle Length												



STAHL SHEAFFER ENGINEERING

Project:

Subject: W88 - + GCP Road (CR7)

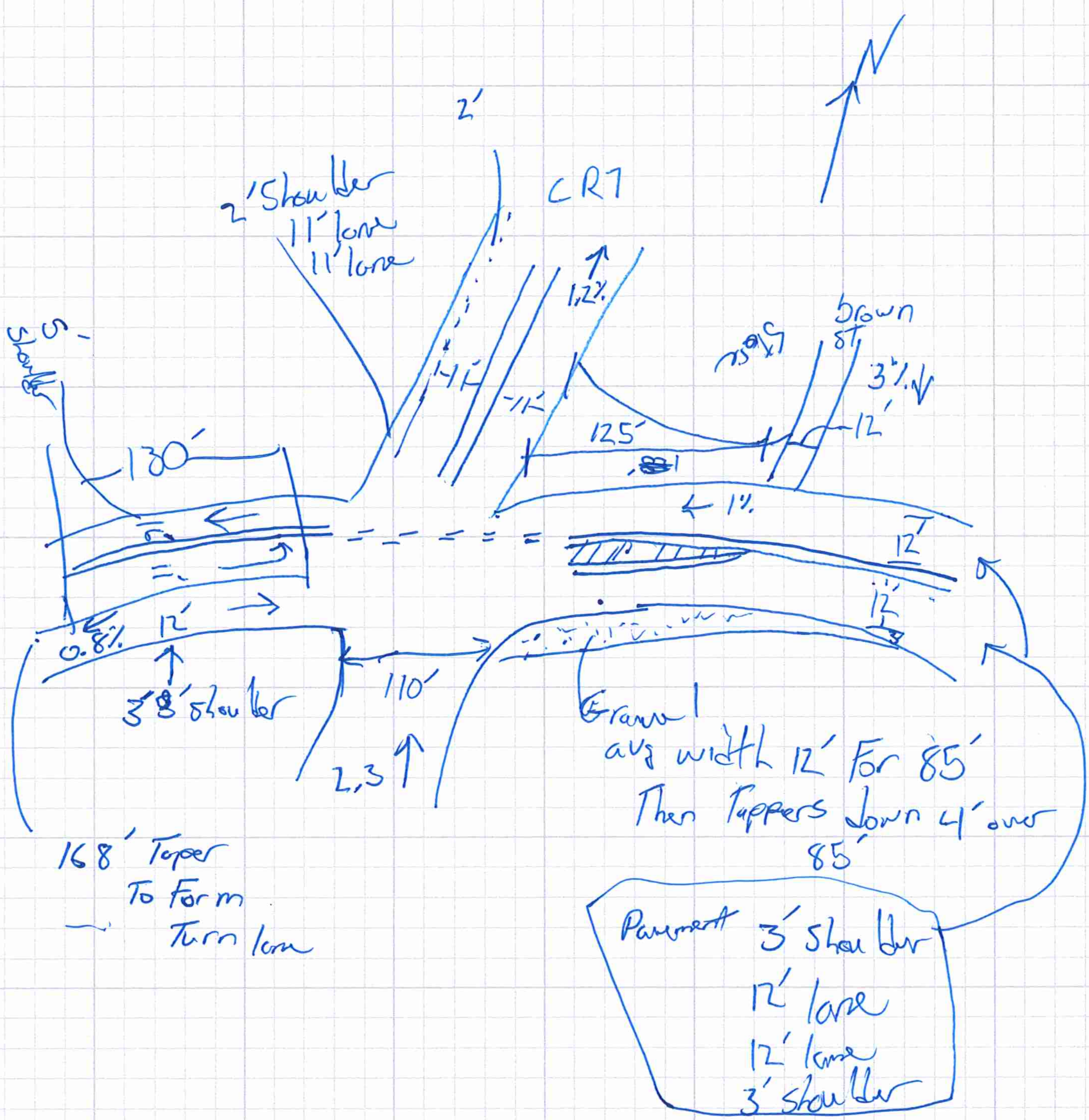
Page: of

Date: 2/12/2020

By: MDC

Chk'd:

#2



STAHL SHEAFFER ENGINEERING

Project:
Subject: US 40 & Park
Page: of Date:
By: Chk'd: #3

(C) curb 1' conc + 11' To white paint - 15' lane - white 3' shoulder (1' conc)

(D) 13' lane, 1 conc be for curb on both sides

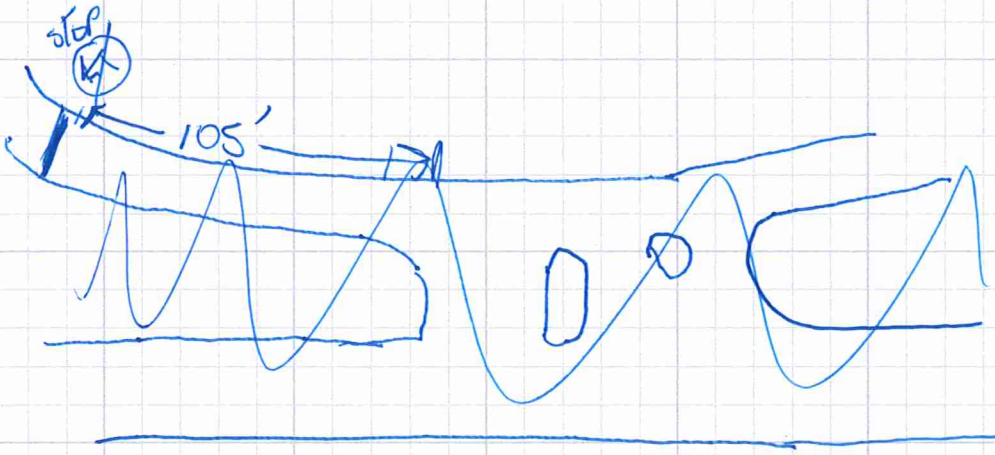
(E) ↑ = 1' conc, 11' lane : ↳ = 1' conc, 11' lane out away From intersection = 12' lane

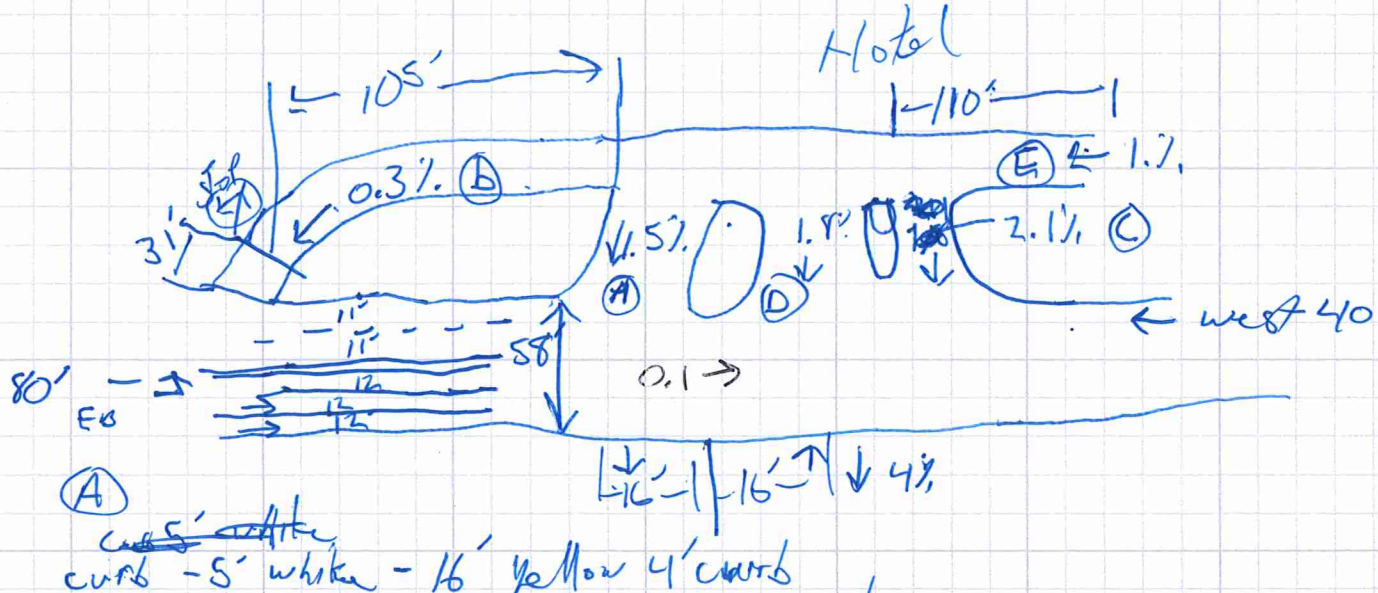
Lengths

(A) 53' To stop bar, 10' To intersection

(D) 63' To stop bar - 9' To intersection

(C) 125' along white striping





(A) ~~curb 5' white~~
curb - 5' white - 16' yellow 4' curb

(B) curb 1' conc - 14' asphalt - 1' conc - curb

#3

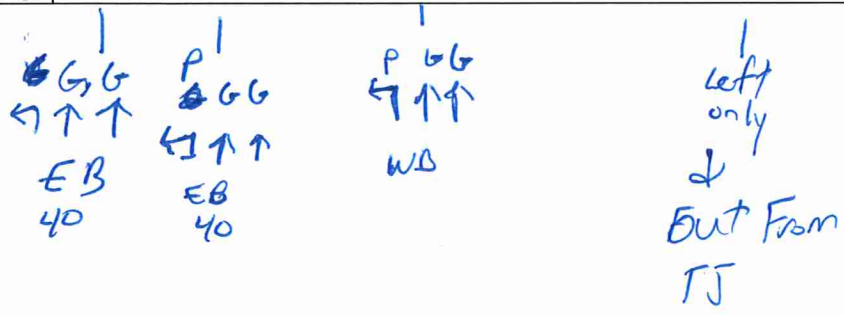
Signal Timing Field Observation
Project Number: _____
Project Name: _____

NOTES:

Date: 2/17/2020
Time: 11am
Collected By: MA

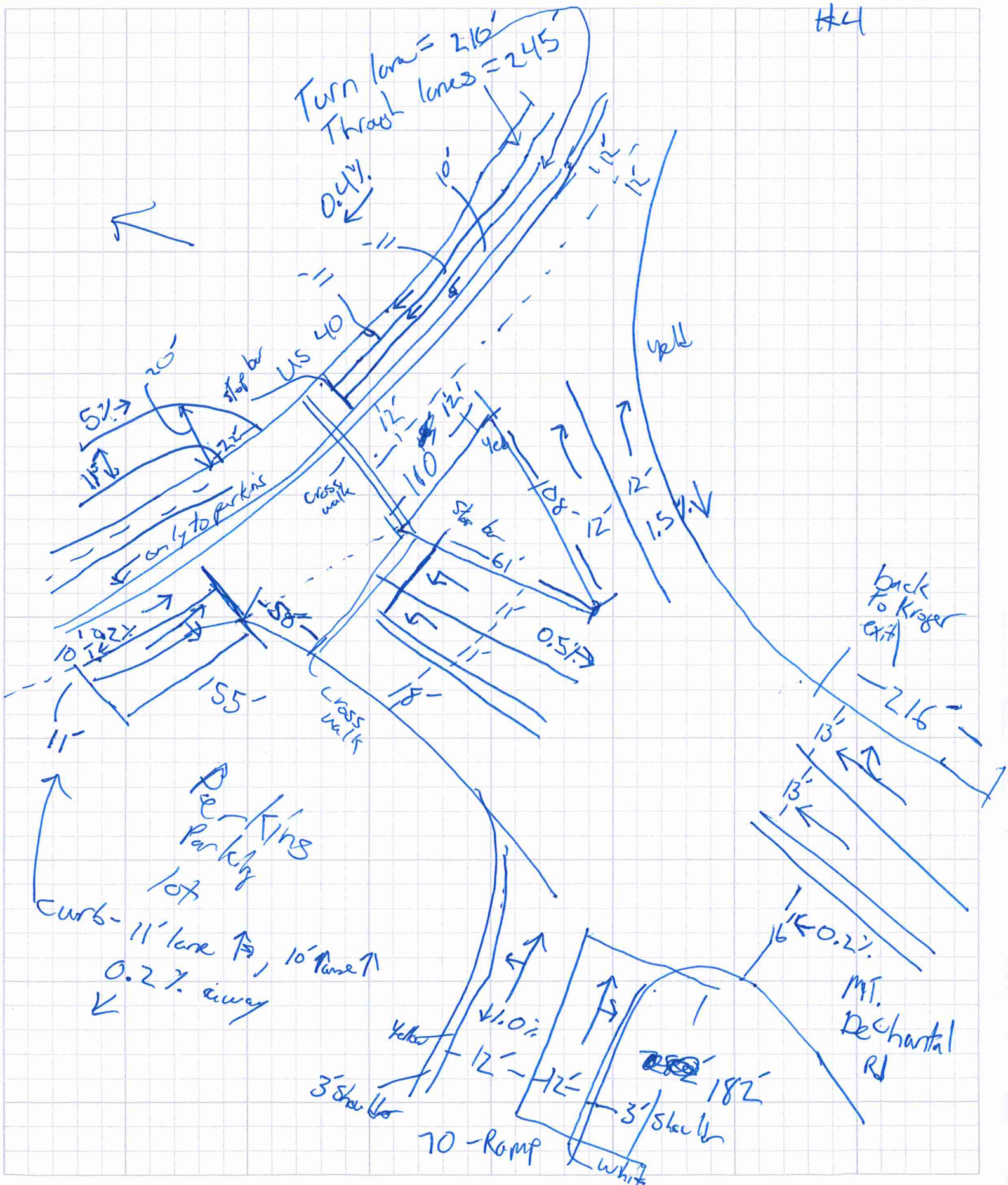
Intersection: US 40 & Park Road

		Mainline (Direction):						Side Street:					
	Interval: (sketch in phasing/ operation)							Park ↰				Cross walk	
Run 1	G	12	~~1:23~~ 1:28		1:30			6	6			22 - all red	
	Y	3.5	3		3.5			3.5					
	AR							1					
	Cycle Length		3:52		~~3:51~~								
Run 2	G	6	3:30		1:16			13				21 - all red	
	Y	3.5	3		4			3.0					
	AR							1					
	Cycle Length		1:30		1:51								
Run 3	G	9	~~1:07~~ 1:11		3:32			6					
	Y	3.5	3		3.5			3.5					
	AR							1					
	Cycle Length		~~3:50~~										
Run 4	G	9	1:34		1:59			13					
	Y	4	3.5		3			3					
	AR												
	Cycle Length							1:55					
Run 5	G	9	1:22		3:33			6					
	Y	3.5	3		3.5			3.5					
	AR												
	Cycle Length												
AVERAGE	G												
	Y												
	AR												
	Cycle Length												



STAHL SHEAFFER ENGINEERING

Project:
Subject: US 40 and I-70/Mt. DeChantal
Page: ____ of ____ Date: 2/18/2020
By: ____ Chk'd: ____



#4

Signal Timing Field Observation
Project Number:
Project Name:

NOTES:

Date: ~~11:00 am~~ 2/18/2020
Time: 11am
Collected By: MDC

Intersection: US 40 - I-70 - Mt. DeChantal

	Interval: (sketch in phasing/ operation)	Mainline (Direction):						Side Street: 70 Ramp ↰↑ ↑↱					
Run 1	G	31		14	28			25	1:30	~~18~~ 22			
	Y	3.5		~~3~~ 3	3.5			3.5	3.5	3.5			
	AR	1						1	1	1			
	Cycle Length	2:25						1:55					
Run 2	G	20		~~30~~ 11	32			21	59	1:20			
	Y	3.5		3.5	3.5			3.5	3.5	3.5			
	AR	1		3.5				1	1	1			
	Cycle Length							1:50					
Run 3	G	30		11	32			21	54	1:47			
	Y	3.5		3.5	3.5			3.5	3.5	3.5			
	AR	1						1	1	1			
	Cycle Length	2:13							1:51				
Run 4	G	29		19	~~8~~ 31			20.5	1:00	1:22			
	Y	3.5		3.5	3.5			3.5	3.5	3.5			
	AR	1						1	1	1			
	Cycle Length									1:52			
Run 5	G	30		18	26			21	1:32	2:05			
	Y	3.5		3.5	3.5			3.5	3.5	3.5			
	AR	1						1					
	Cycle Length												
AVERAGE	G												
	Y												
	AR												
	Cycle Length												

US40 EB ↑↱

US40 WB GG ↰↑↑

US 40 WB P GG ↰↑↑

↰↰ Mt. DeChant To US40

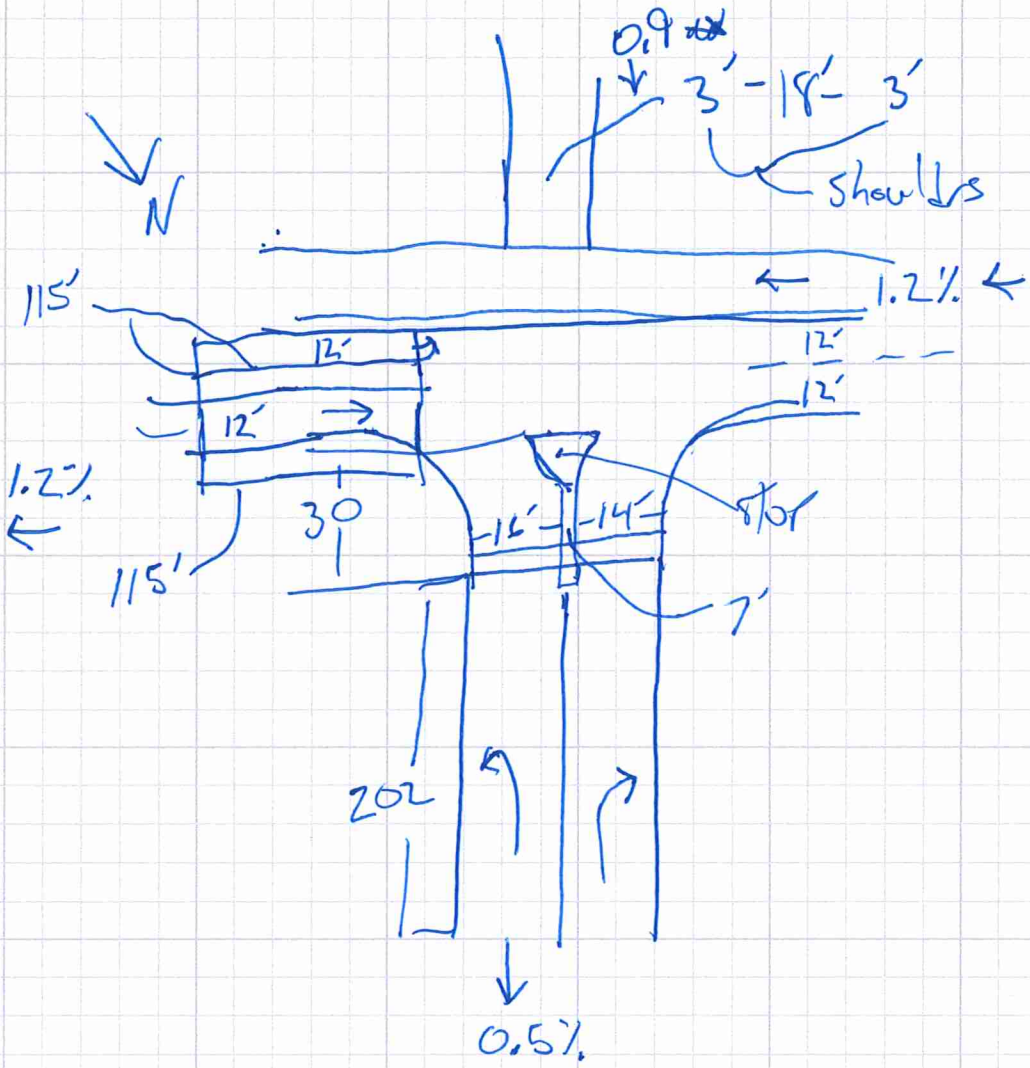
↑↑ MT. DeChantal To Kroger

↰↑ MT DeChantal To US 40

STAHL SHEAFFER ENGINEERING

Project:
Subject: Kroger Driveway exit only
Page: of Date:
By: Chk'd:

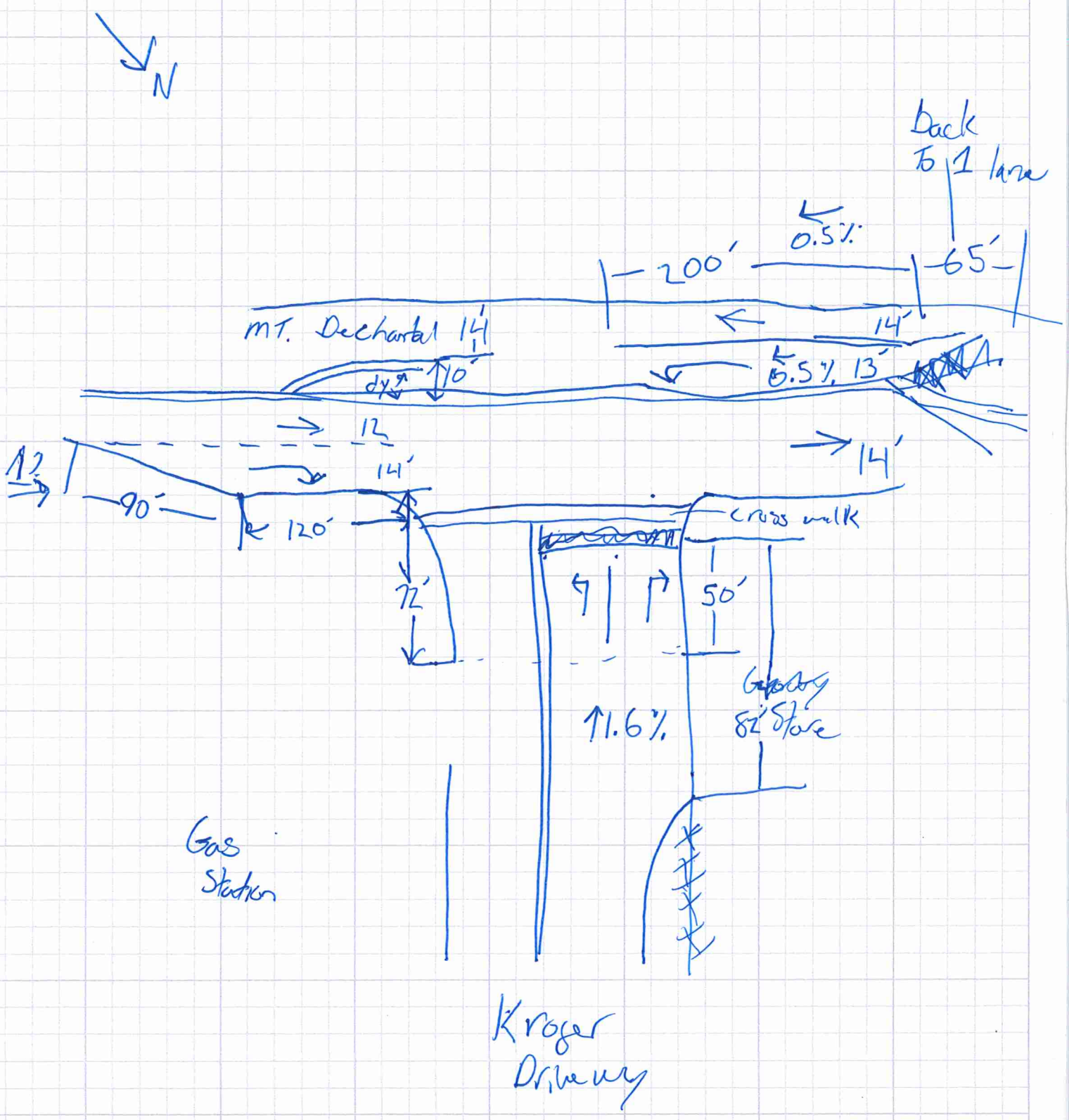
#5



STAHL SHEAFFER ENGINEERING

Project:
Subject: ⑥ Mt. Dechantal & Kroger Driveway
Page: of Date: 2/17/2020
By: MDC Chk'd:

#6



~~#5~~

#6

Signal Timing Field Observation

Project Number: _____

Project Name: _____

NOTES:

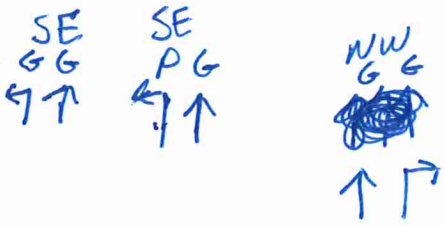
Date: 2/17/2020

Time: 14:30

Collected By: MDC

Intersection: Kroger Driveway

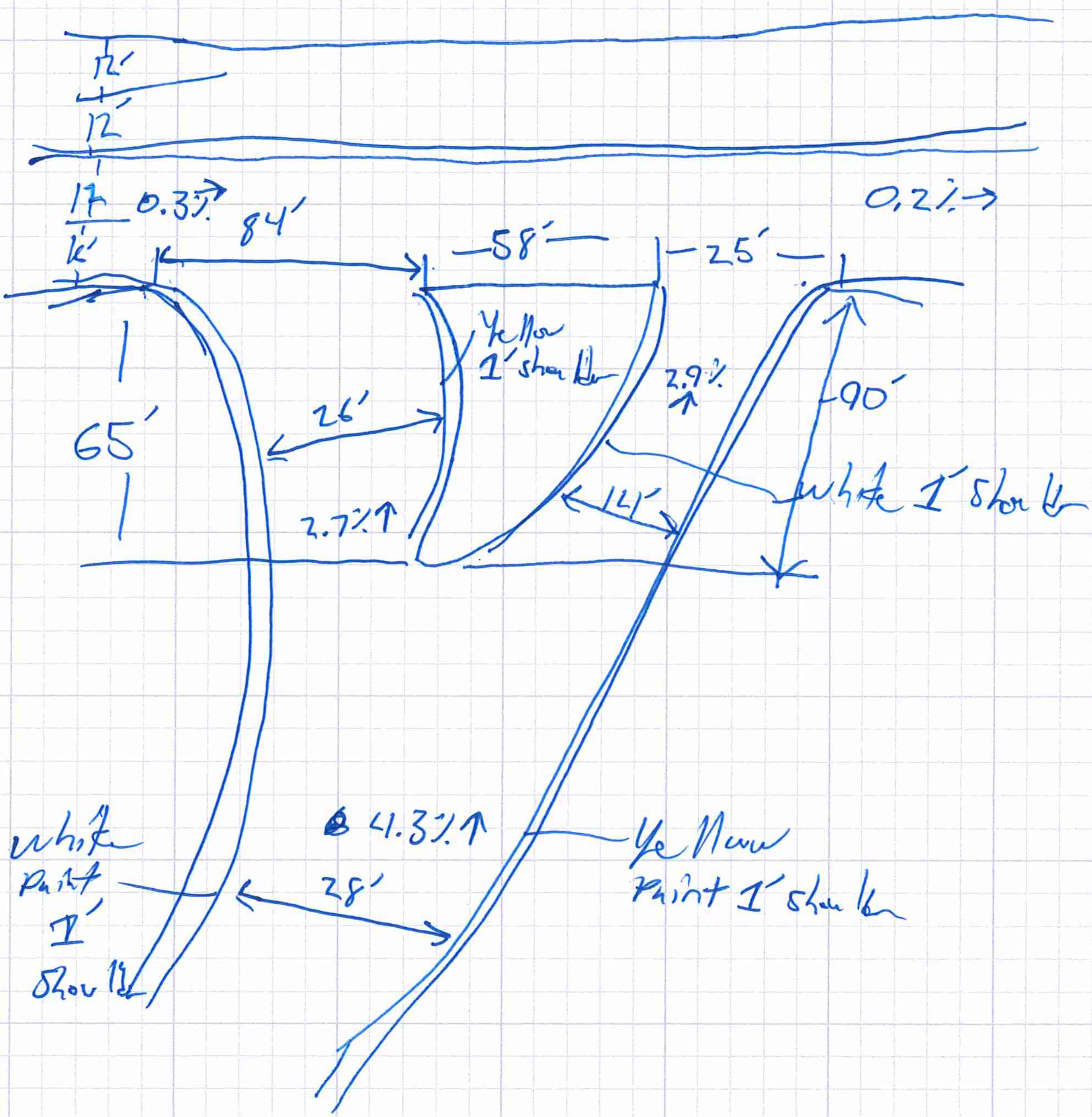
		Mainline (Direction):						Side Street: Kroger					
Interval: (sketch in phasing/ operation)													
Run 1	G	10	1:02		1:00			10					
	Y	3.5	3.5		3.5			3.5					
	AR							1					
	Cycle Length		1:35					~~1:35~~ 1:35					
Run 2	G	11	1:02		1:00			11					
	Y	3.5	3.5		3.5			3					
	AR							1					
	Cycle Length		1:35					1:34					
Run 3	G	10	1:02		59			12					
	Y	3.5	3		3.5			3					
	AR							1					
	Cycle Length		1:34										
Run 4	G	10	1:01		1:00			12					
	Y	3.5	3.5		3.5			3.5					
	AR												
	Cycle Length												
Run 5	G	9	1:01		1:00			11					
	Y	3.5	3.5		3.5			3.5					
	AR												
	Cycle Length												
AVERAGE	G												
	Y												
	AR												
	Cycle Length												



STAHL SHEAFFER ENGINEERING

Project:
Subject: 5-70 WB & US-40
Page: of
Date: 2/18/2020
By: MDL
Chk'd:

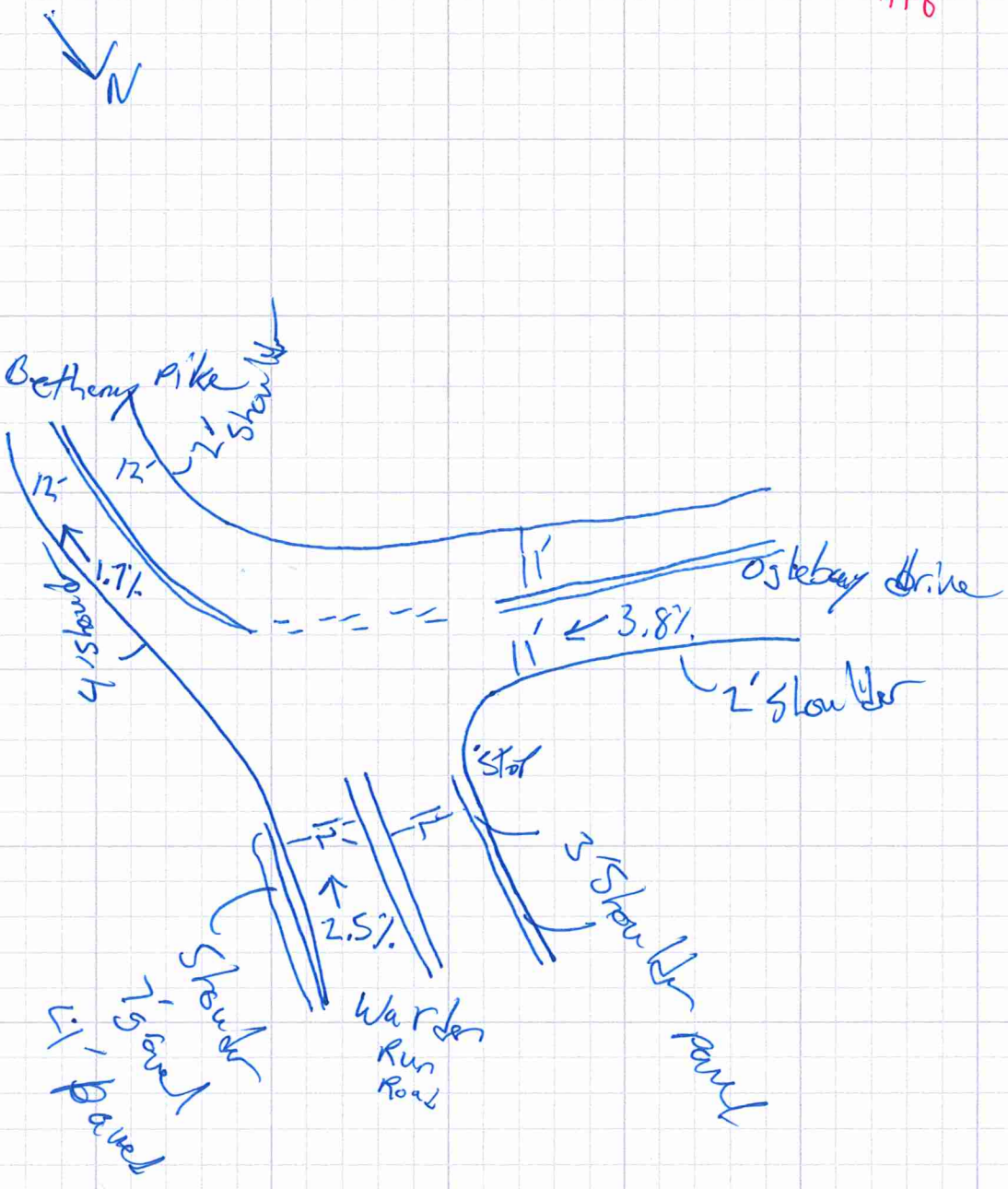
#7



STAHL SHEAFFER ENGINEERING

Project:
Subject: WV 88 + Warden Run Road
Page: of Date: 2/17/2020
By: Chk'd:

#8



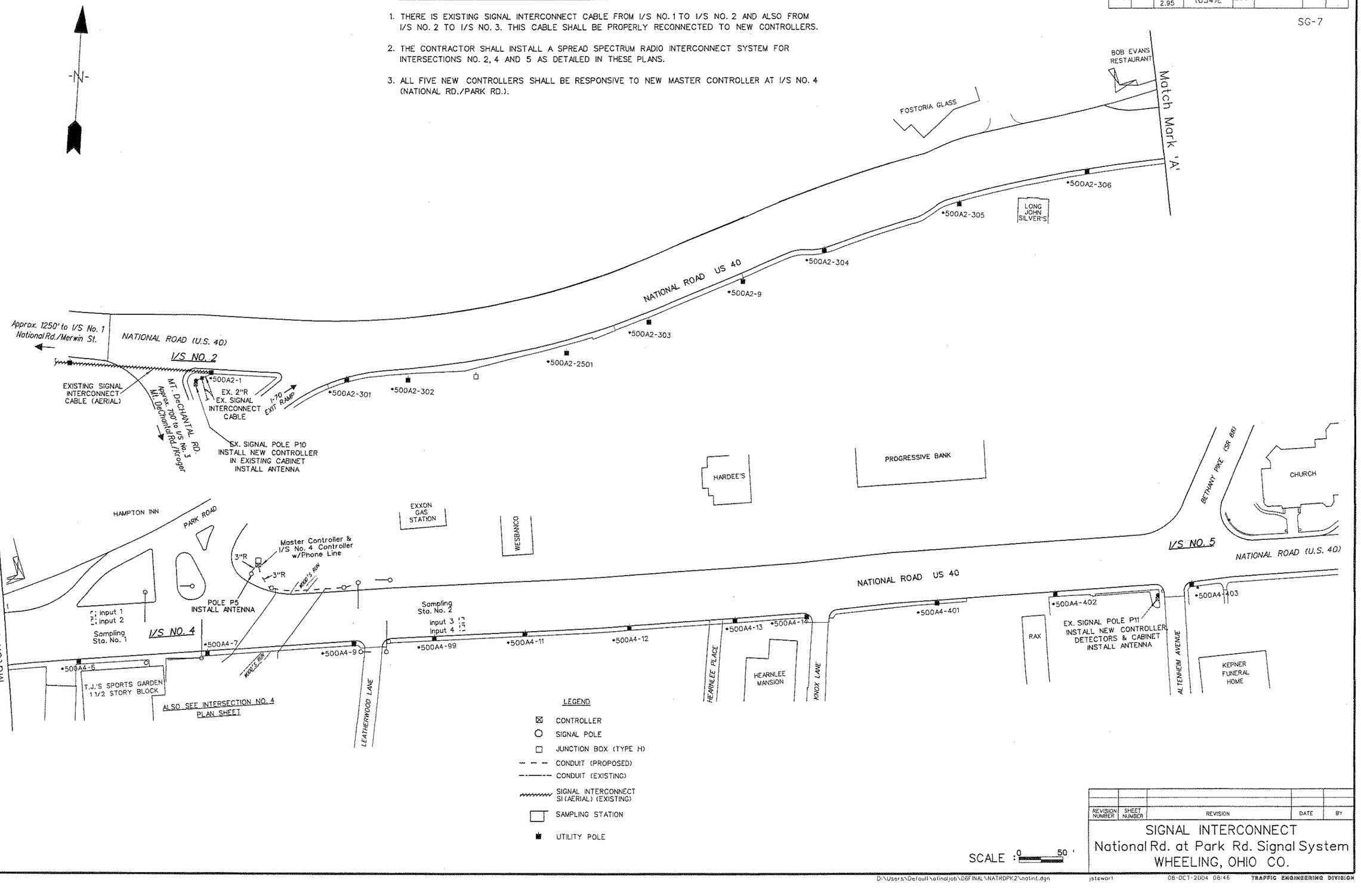
55054

PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	65	165

SG-7

INTERCONNECT NOTES (ALSO SEE SHEET SG-6)

1. THERE IS EXISTING SIGNAL INTERCONNECT CABLE FROM I/S NO. 1 TO I/S NO. 2 AND ALSO FROM I/S NO. 2 TO I/S NO. 3. THIS CABLE SHALL BE PROPERLY RECONNECTED TO NEW CONTROLLERS.
2. THE CONTRACTOR SHALL INSTALL A SPREAD SPECTRUM RADIO INTERCONNECT SYSTEM FOR INTERSECTIONS NO. 2, 4 AND 5 AS DETAILED IN THESE PLANS.
3. ALL FIVE NEW CONTROLLERS SHALL BE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD./PARK RD.).



REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

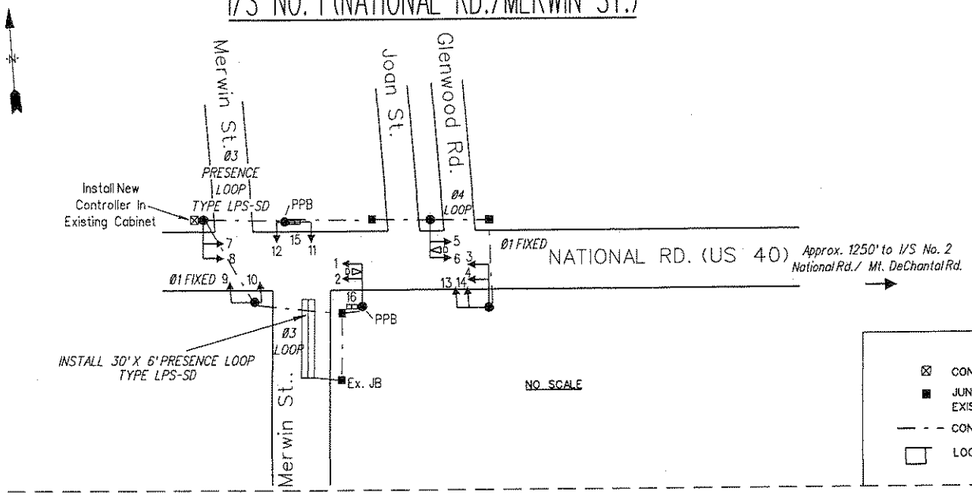
SIGNAL INTERCONNECT
National Rd. at Park Rd. Signal System
WHEELING, OHIO CO.

D:\Users\Default\atinaljob\D6FINAL\NATRDPK2\natint.dgn jstewart 08-OCT-2004 08:46 TRAFFIC ENGINEERING DIVISION

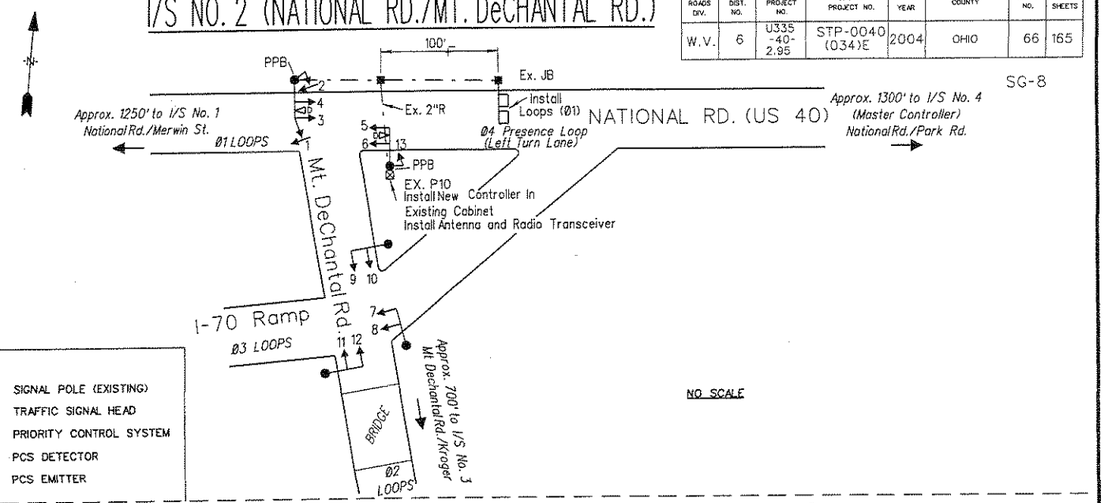
PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	66	165

SG-8

I/S NO. 1 (NATIONAL RD./MERWIN ST.)



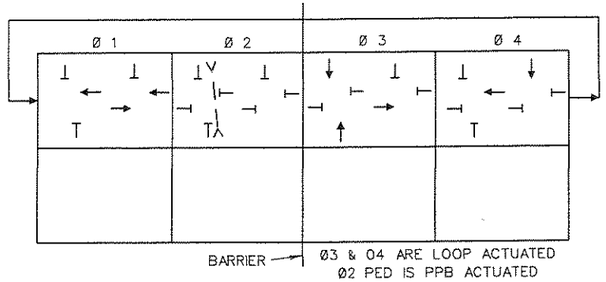
I/S NO. 2 (NATIONAL RD./MT. DeCHANTAL RD.)



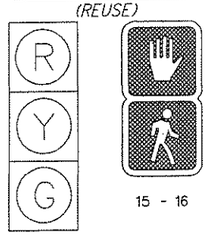
LEGEND

⊠	CONTROLLER	●	SIGNAL POLE (EXISTING)
■	JUNCTION BOX (TYPE H) EXISTING	→	TRAFFIC SIGNAL HEAD
— — —	CONDUIT (EXISTING)	PCS	PRIORITY CONTROL SYSTEM
▭	LOOP DETECTOR	D▷	PCS DETECTOR
		D|||◁	PCS EMITTER

DUAL RING PHASING



EXISTING SIGNAL HEADS (REUSE)

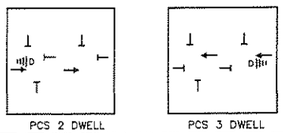


FLASH SEQUENCE

HEAD NO.	FLASH
1, 2, 3 4, 5, 6 7, 8	Y
9, 10 11, 12 13, 14	R
15, 16	DARK

I/S NO. 1 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



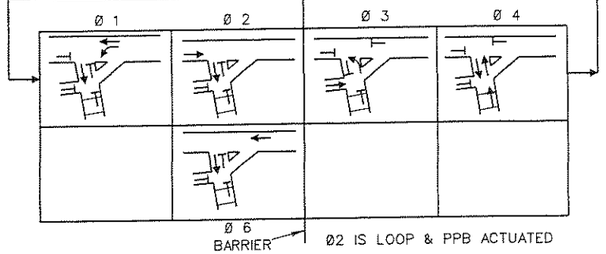
I/S NO. 1 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID THIS WORK & MATERIAL AS ITEM 660001-01(01).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(01).
4. THE EXISTING SIGNAL POLES AND CONDUCTOR CABLE SHALL BE REUSED.
5. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 2. THIS CABLE SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER TO MAKE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD/PARK RD). BID AS PART OF ITEM 660006-001.
6. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON SIGNAL MAST ARMS AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.
7. NEW 30' X 6' PRESENCE LOOP TO BE INSTALLED FOR THE SOUTH MERWIN ST APPROACH. THESE TO BE PROPERLY SPLICED TO EXISTING DETECTOR FEEDER CABLE WITHIN EXISTING JB. BID AS PART OF ITEM 660007-001(01). ALL OTHER LOOPS ARE EXISTING TO BE REUSED.

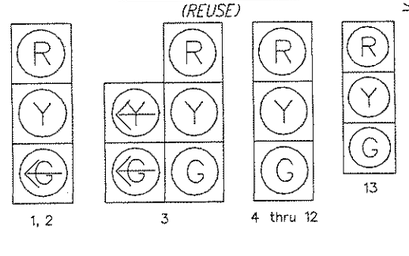
ESTIMATE OF QUANTITIES (I/S NO. 1)

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(01) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	2	PCS DETECTOR w/CONFIRMATION LIGHT
5	1	PCS INTERFACE (RACK MOUNTED)
6	1	PCS EMITTER (VEHICLE MOUNTED) (CONTACT CITY OF WHEELING FOR LOCATION)
7.	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE

DUAL RING PHASING



EXISTING SIGNAL HEADS (REUSE)

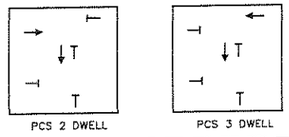


FLASH SEQUENCE

HEAD NO.	FLASH
3, 4, 5 6, 7, 8	Y
1, 2, 9 10, 11, 12, 13	R

I/S NO. 2 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



I/S NO. 2 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID TIHS WORK & MATERIAL AS ITEM 660001-001(02).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(02).
4. NEW LOOPS TO BE INSTALLED IN FINAL PAVEMENT FOR US 40 WB THRU LANES. THESE TO BE PROPERLY SPLICED TO EXISTING DETECTOR FEEDER CABLE WITHIN EXISTING JB. BID AS PART OF ITEM 660007-001(02). ALL OTHER LOOPS ARE EXISTING TO BE REUSED.
5. THE EXISTING SIGNAL POLES AND CONDUCTOR CABLE SHALL BE REUSED.
6. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 1 AND NO. 3 THESE CABLES SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER.
7. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON SIGNAL MAST ARMS AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.
8. INSTALL ANTENNA AND RADIO TRANSCEIVER AS DESCRIBED IN THESE PLANS. I/S NOS. 1, 2 AND 3 TO BE RESPONSIVE TO THE NEW MASTER CONTROLLER AT I/S NO. 4.

ESTIMATE OF QUANTITIES (I/S NO. 2)

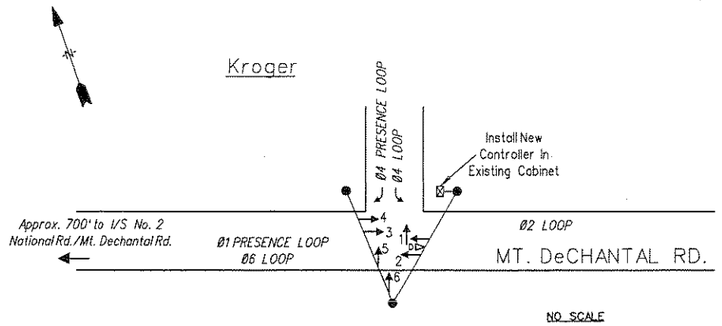
LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(02) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE
5	2	PCS DETECTOR w/CONFIRMATION LIGHT
6	1	PCS INTERFACE (RACK MOUNTED)

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

I/S NO. 1 & I/S NO. 2 Signal Work Description
NATIONAL RD. at PARK RD. SIGNAL SYSTEM
WHEELING, OHIO CO.

D:\Users\Default\atrialjob\06FINAL\NATRDPK2\NATWRK1.DGN jstewart 08-OCT-2004 10:37 TRAFFIC ENGINEERING DIVISION

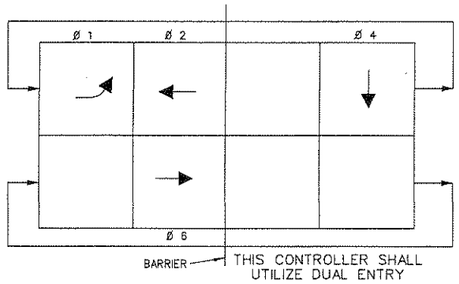
I/S NO. 3 (MT. DeCHANTAL RD./KROGER)



LEGEND

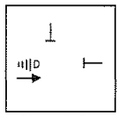
- CONTROLLER
- JUNCTION BOX (TYPE H) EXISTING
- CONDUIT (EXISTING)
- LOOP DETECTOR
- SIGNAL POLE (EXISTING)
- TRAFFIC SIGNAL HEAD
- PCS PRIORITY CONTROL SYSTEM
- PCS DETECTOR
- PCS EMITTER

DUAL RING PHASING



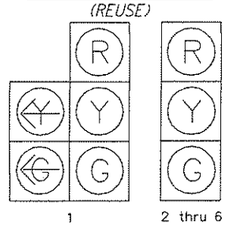
I/S NO. 3 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



EXISTING SIGNAL HEADS

(REUSE)



FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4	Y
5, 6	R

I/S NO. 3 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID THIS WORK & MATERIAL AS ITEM 660001-001(03).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(03).
4. THE EXISTING SIGNAL POLES AND CONTROLLER CABLE SHALL BE REUSED.
5. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 2. THIS CABLE SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER TO MAKE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD/PARK RD). BID AS PART OF ITEM 660006-001(1). THIS EXISTING CABLE IS INSTALLED IN CONDUIT UNDERGROUND.
6. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (1) SHALL BE INSTALLED ON SIGNAL SPAN WIRE AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.

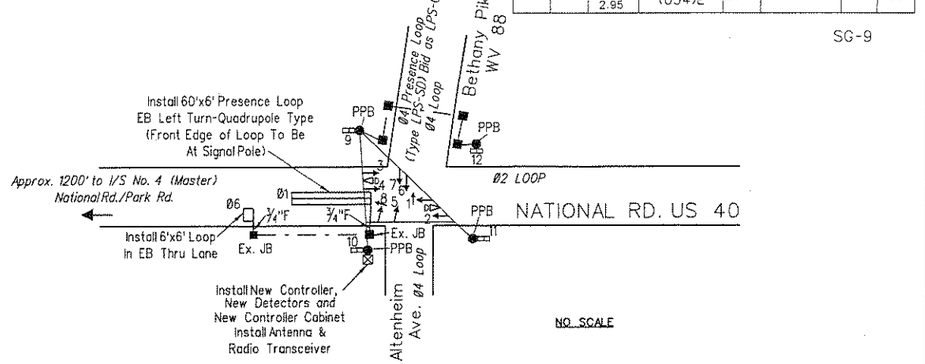
ESTIMATE OF QUANTITIES (I/S NO. 3)

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(03) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	1	PCS DETECTOR w/CONFIRMATION LIGHT
5	1	PCS INTERFACE (RACK MOUNTED)

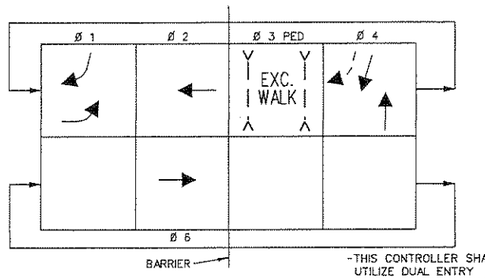
I/S NO. 5 (NATIONAL RD./BETHANY PIKE)

PUBLIC ROADS OFF.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	67	165

SG-9



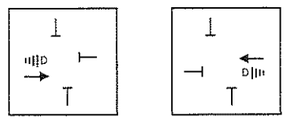
DUAL RING PHASING



-THIS CONTROLLER SHALL UTILIZE DUAL ENTRY
-Ø3 PED IS PPB ACTUATED
-HEAD NO. 8 SHALL HAVE GREEN ARROW OVERLAP FOR PHASE 1

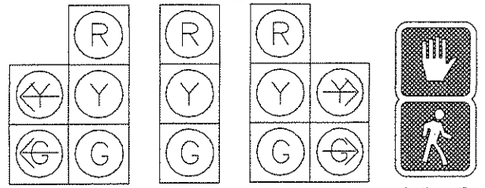
I/S NO. 5 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



EXISTING SIGNAL HEADS

(REUSE)



FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4	Y
5, 6 7, 8	R
9 - 12	DARK

I/S NO. 5 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE THE EXISTING CONTROLLER, DETECTORS AND CONTROLLER CABINET. A NEW CONTROLLER, CONTROLLER CABINET AND CARD-RACK TYPE DETECTORS SHALL BE INSTALLED AT THE SAME LOCATION AND POSITION AS EXISTING CABINET. BID CONTROLLER WORK AS ITEM 660001-001(05). BID DETECTOR WORK AS ITEM 660002-005(LPS-C).
3. THE EXISTING SIGNAL HEADS, PPBs AND POWER SERVICE SHALL BE REUSED AND REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(05).
4. THE EXISTING DETECTOR CABINETS SHALL BE REMOVED AND HOLES IN POLE PLUGGED. BID AS PART OF ITEM 660007-001(05).
5. NEW DETECTOR FEEDER CABLE TO BE PROPERLY SPLICED TO ALL LOOPS (6) IN APPROPRIATE JB AND INSTALLED TO APPROPRIATE NEW DETECTOR IN NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(05).
6. NEW LOOP TO BE INSTALLED IN THE US 40 EB THRU LANE AND ALSO THE US 40 EB LEFT TURN LANE (60'x6') AS SHOWN ABOVE. ALL OTHER LOOPS AT THIS INTERSECTION ARE EXISTING TO BE REUSED.
7. THE EXISTING SIGNAL POLES, MESSENGER CABLE AND SIGNAL HEAD CONDUCTOR CABLE SHALL BE REUSED.
8. INSTALL ANTENNA AND RADIO TRANSCEIVER AS DESCRIBED IN THESE PLANS. THIS INTERSECTION TO BE RESPONSIVE TO THE NEW MASTER CONTROLLER AT I/S NO. 4.
9. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON MESSENGER CABLE AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.

ESTIMATE OF QUANTITIES

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER - 660001-001(05) TYPE C
2	1	SIGNAL MONITORING DEVICE
3	1	CONTROLLER CABINET (POLE MOUNT)
4	6	DETECTOR (TYPE LPS-C)
5	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE
6	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
7	AS NEEDED	CONDUIT AND CONDUCTOR CABLE
8	2	PCS DETECTOR w/CONFIRMATION LIGHT
9	1	PCS INTERFACE (RACK MOUNTED)

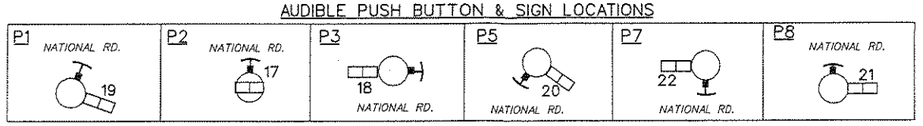
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

I/S NO. 3 & I/S NO. 5 Signal Work Description
NATIONAL RD. at PARK RD. SIGNAL SYSTEM
WHEELING, OHIO CO.

NOTES:

1. CONTRACTOR SHALL USE CAUTION NOT TO DAMAGE EXISTING UNDERGROUND LIGHTING FOR TJ's RESTAURANT NEAR P2. THIS TO BE LOCATED PRIOR TO EXCAVATION IN THIS AREA.
2. EXISTING FENCE TO BE REMOVED THEN REINSTALLED UPON INSTALLATION OF P2. BID AS PART OF ITEM 660007-001(04).
3. USE CAUTION NOT TO DISTURB ANYMORE BUSHES THAN NECESSARY FOR INSTALLATION OF POLE P2.
4. POLE P2 TO BE INSTALLED NEAR FENCE, CONTRACTOR TO MAKE PPB ACCESSIBLE TO ALL PEDESTRIANS.
5. USE CAUTION INSTALLING FOUNDATION FOR POLES P1, P8 & P9, THERE ARE EXISTING TELEPHONE DUCTS NEAR. THESE DUCTS ARE TO BE ABANDONED. CONTACT THE DISTRICT 6 DOH UTILITY SUPERVISOR PRIOR TO INSTALLING THESE FOUNDATIONS.

AUDIBLE PUSH BUTTON & SIGN LOCATIONS



■ - PPB ⊢ - SIGN ▭ - PED HEAD

PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	68	165

★ - USE CAUTION INSTALLING P1 FOUNDATION (ANCHOR BOLT ORIENTATION) AT ANGLES SHOWN IN CHART

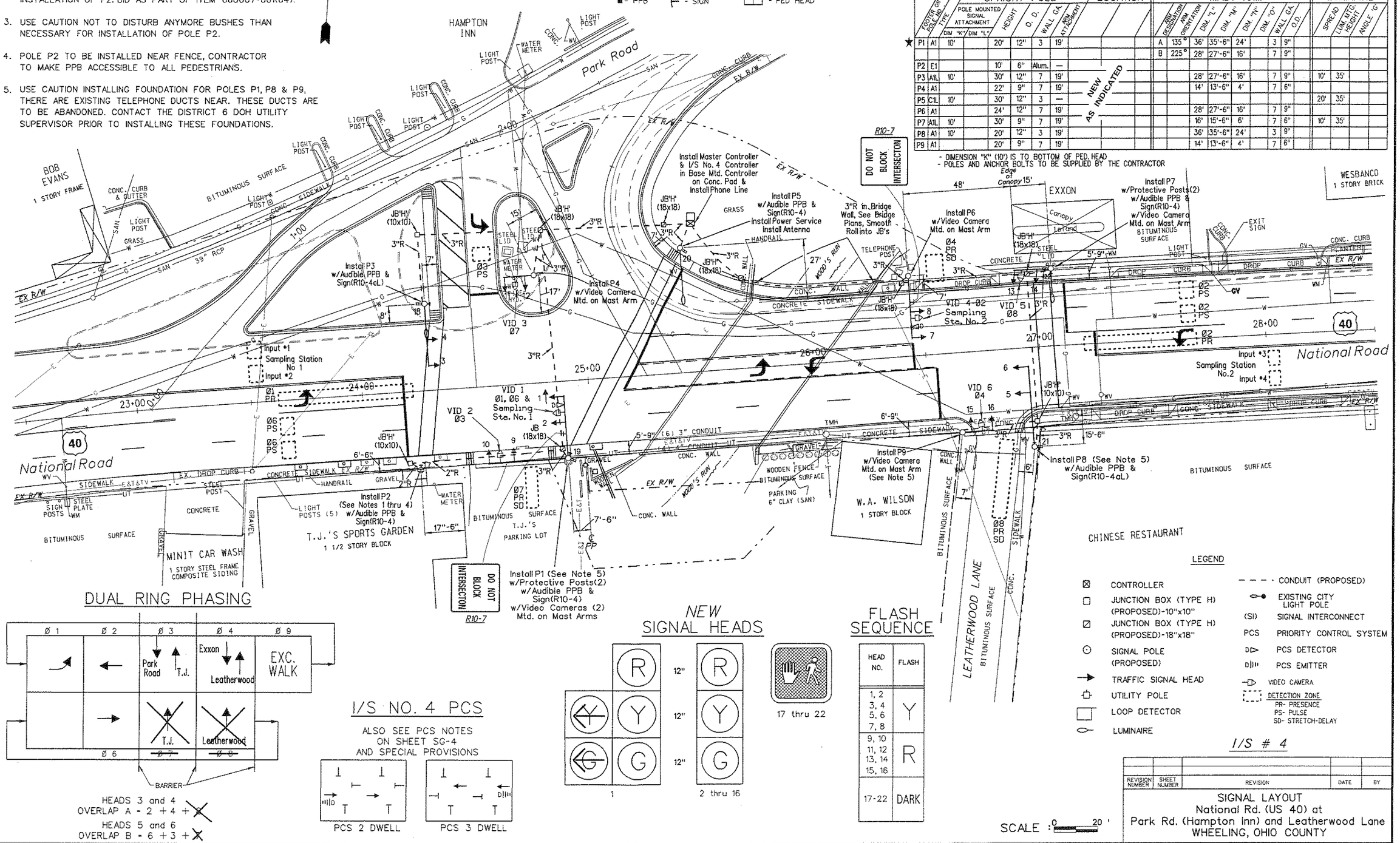
POLE CHART

SG-10

	FOOTER OR POLE NO.	TYPE	UPRIGHT POLE: POLE MOUNTED SIGNAL ATTACHMENT DIM "K"	DIM "L"	HEIGHT	O. D.	WALL GA.	ARM ATTACHMENT	LOCATION	MAST ARM: ARM DESIGNATION	ARM ORIENTATION	DIM. "L"	DIM. "M"	DIM. "W"	DIM. "O"	WALL GA.	O.D.	LUMINAIRE: SPREAD	LUM. MTG. HEIGHT	ANGLE °G
★	P1	A1	10'		20'	12"	3	19'		A	135°	36'	35'-6"	24'		3	9"			
										B	225°	28'	27'-6"	16'		7	9"			
	P2	E1			10'	6"	Alum.	—												
	P3	A1L	10'		30'	12"	7	19'				28'	27'-6"	16'		7	9"	10'	35'	
	P4	A1			22'	9"	7	19'				14'	13'-6"	4'		7	6"			
	P5	C1L	10'		30'	12"	3	—										20'	35'	
	P6	A1			24'	12"	7	19'				28'	27'-6"	16'		7	9"			
	P7	A1L	10'		30'	9"	7	19'				16'	15'-6"	6'		7	6"	10'	35'	
	P8	A1	10'		20'	12"	3	19'				36'	35'-6"	24'		3	9"			
	P9	A1			20'	9"	7	19'				14'	13'-6"	4'		7	6"			

NEW AS INDICATED

- DIMENSION "K" (10') IS TO BOTTOM OF PED. HEAD
- POLES AND ANCHOR BOLTS TO BE SUPPLIED BY THE CONTRACTOR



DUAL RING PHASING

HEADS 3 and 4 OVERLAP A - 2 + 4 + ~~6~~

HEADS 5 and 6 OVERLAP B - 6 + 3 + ~~X~~

I/S NO. 4 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 AND SPECIAL PROVISIONS

PCS 2 DWELL PCS 3 DWELL

NEW SIGNAL HEADS

1 2 thru 16

17 thru 22

FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4 5, 6 7, 8	Y
9, 10 11, 12 13, 14 15, 16	R
17-22	DARK

LEGEND

- ⊠ CONTROLLER
- □ JUNCTION BOX (TYPE H) (PROPOSED)-10"x10"
- ▨ JUNCTION BOX (TYPE H) (PROPOSED)-18"x18"
- ⊙ SIGNAL POLE (PROPOSED)
- → TRAFFIC SIGNAL HEAD
- ⊕ UTILITY POLE
- ▭ LOOP DETECTOR
- ⬭ LUMINAIRE
- - - - CONDUIT (PROPOSED)
- ⊶ EXISTING CITY LIGHT POLE
- (SI) SIGNAL INTERCONNECT
- PCS PRIORITY CONTROL SYSTEM
- D▷ PCS DETECTOR
- D|||' PCS EMITTER
- ⊣▷ VIDEO CAMERA
- ⋯ DETECTION ZONE PR- PRESENCE PS- PULSE SD- STRETCH-DELAY

I/S # 4

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SIGNAL LAYOUT
National Rd. (US 40) at
Park Rd. (Hampton Inn) and Leatherwood Lane
WHEELING, OHIO COUNTY

SCALE : 0 20 '

D:\Users\Default\afinaljob\D6FINAL\NATRDPK2\nat1.dgn jstewart 08-OCT-2004 10:20 TRAFFIC ENGINEERING DIVISION

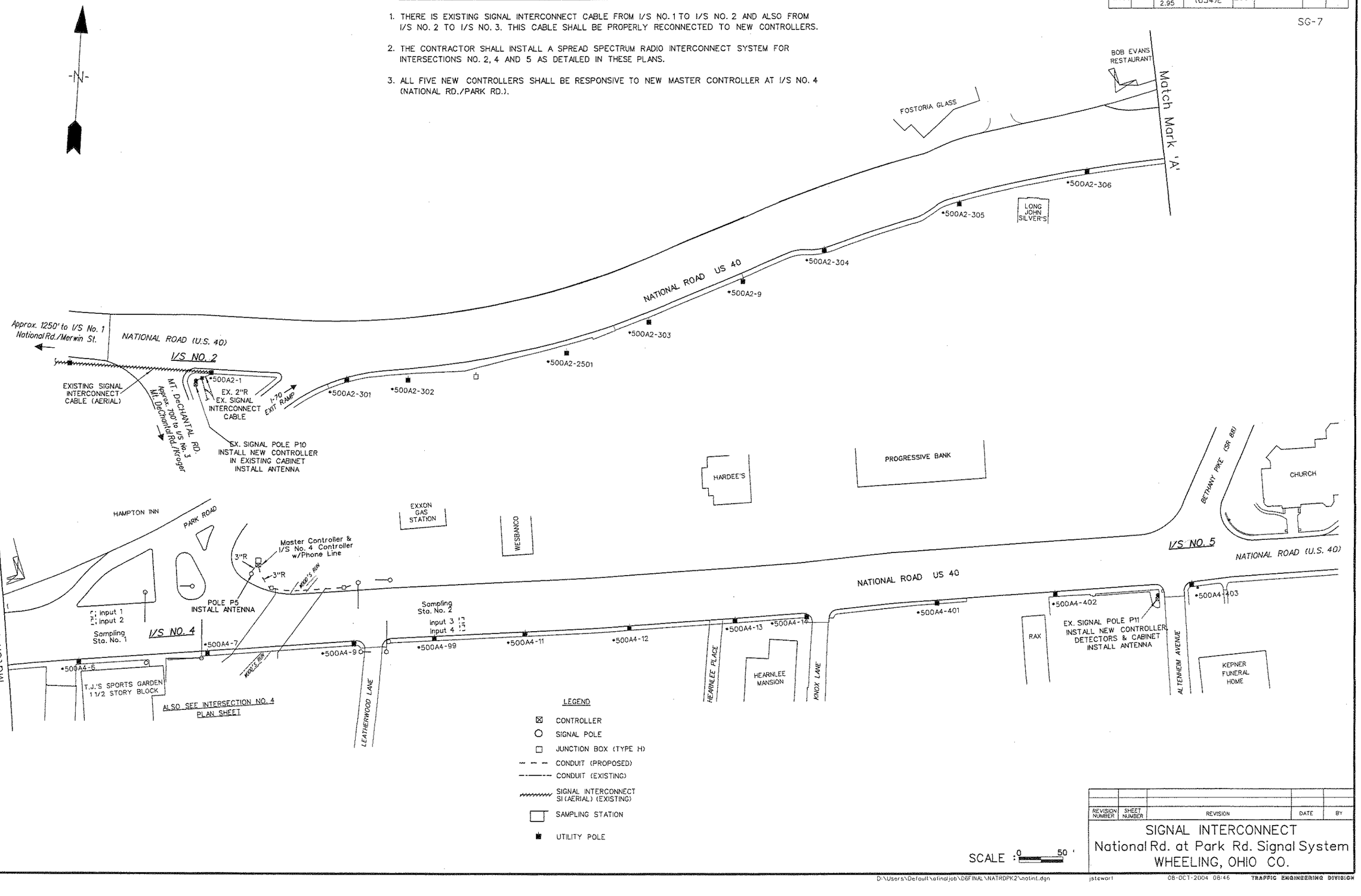
55054

PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	65	165

SG-7

INTERCONNECT NOTES (ALSO SEE SHEET SG-6)

1. THERE IS EXISTING SIGNAL INTERCONNECT CABLE FROM I/S NO. 1 TO I/S NO. 2 AND ALSO FROM I/S NO. 2 TO I/S NO. 3. THIS CABLE SHALL BE PROPERLY RECONNECTED TO NEW CONTROLLERS.
2. THE CONTRACTOR SHALL INSTALL A SPREAD SPECTRUM RADIO INTERCONNECT SYSTEM FOR INTERSECTIONS NO. 2, 4 AND 5 AS DETAILED IN THESE PLANS.
3. ALL FIVE NEW CONTROLLERS SHALL BE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD./PARK RD.).



REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SIGNAL INTERCONNECT
National Rd. at Park Rd. Signal System
WHEELING, OHIO CO.

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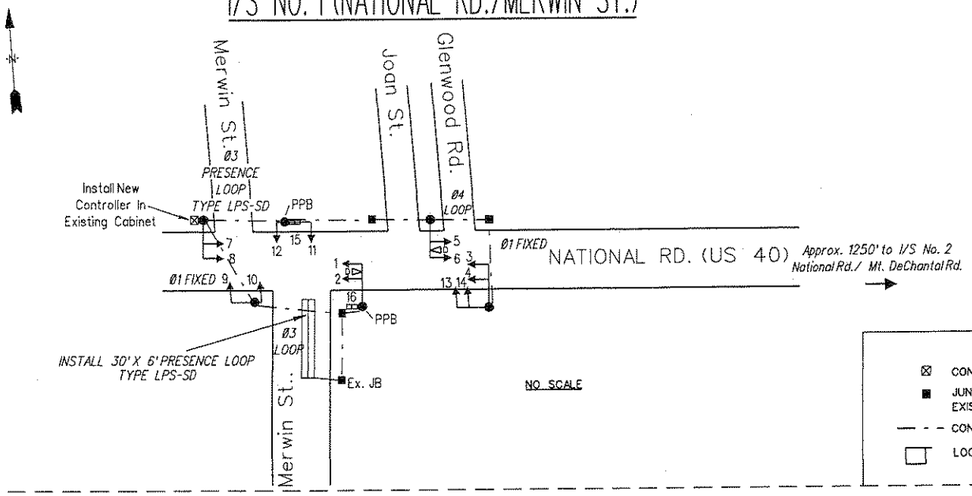
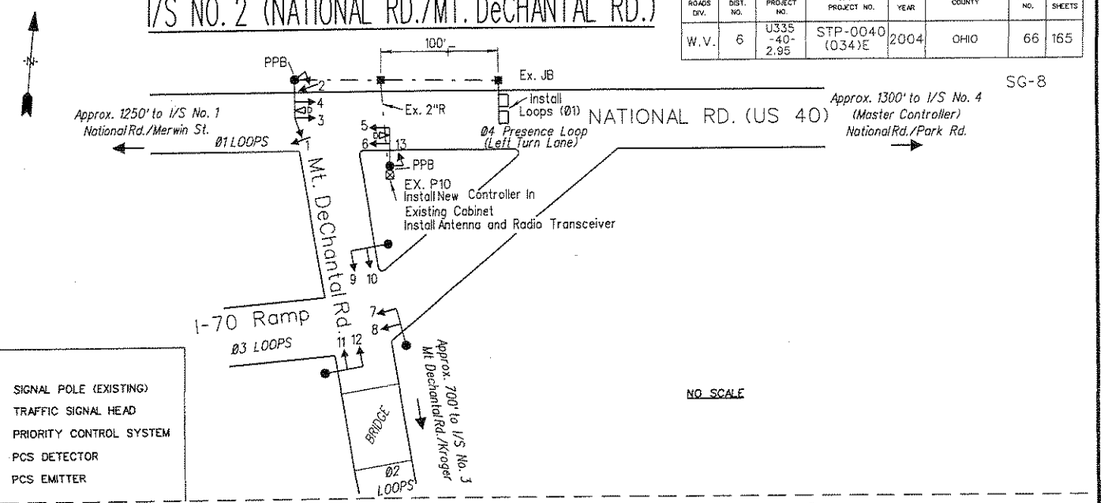
PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	66	165

SG-8

I/S NO. 1 (NATIONAL RD./MERWIN ST.)



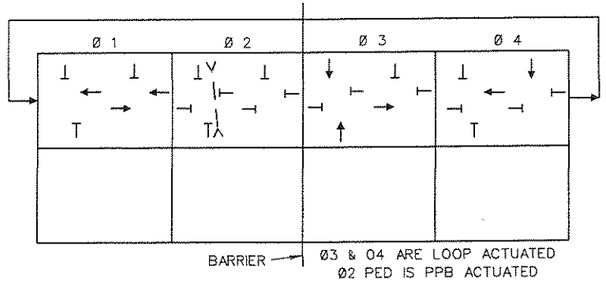
I/S NO. 2 (NATIONAL RD./MT. DeCHANTAL RD.)



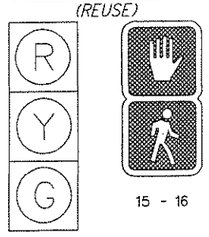
LEGEND

⊠	CONTROLLER	●	SIGNAL POLE (EXISTING)
■	JUNCTION BOX (TYPE H) EXISTING	→	TRAFFIC SIGNAL HEAD
— — —	CONDUIT (EXISTING)	PCS	PRIORITY CONTROL SYSTEM
▭	LOOP DETECTOR	D▷	PCS DETECTOR
		D|||◁	PCS EMITTER

DUAL RING PHASING



EXISTING SIGNAL HEADS (REUSE)

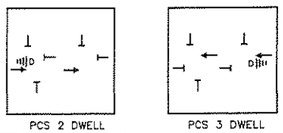


FLASH SEQUENCE

HEAD NO.	FLASH
1, 2, 3 4, 5, 6 7, 8	Y
9, 10 11, 12 13, 14	R
15, 16	DARK

I/S NO. 1 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



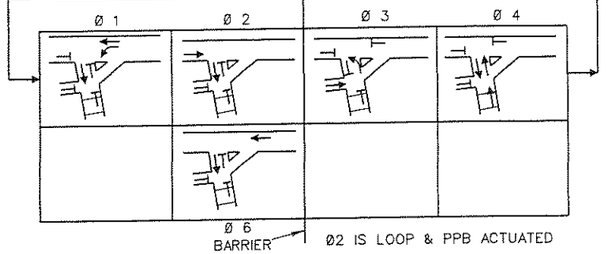
I/S NO. 1 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID THIS WORK & MATERIAL AS ITEM 660001-01(01).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(01).
4. THE EXISTING SIGNAL POLES AND CONDUCTOR CABLE SHALL BE REUSED.
5. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 2. THIS CABLE SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER TO MAKE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD/PARK RD). BID AS PART OF ITEM 660006-001.
6. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON SIGNAL MAST ARMS AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.
7. NEW 30' X 6' PRESENCE LOOP TO BE INSTALLED FOR THE SOUTH MERWIN ST APPROACH. THESE TO BE PROPERLY SPLICED TO EXISTING DETECTOR FEEDER CABLE WITHIN EXISTING JB. BID AS PART OF ITEM 660007-001(01). ALL OTHER LOOPS ARE EXISTING TO BE REUSED.

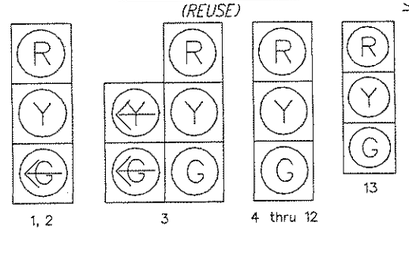
ESTIMATE OF QUANTITIES (I/S NO. 1)

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(01) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	2	PCS DETECTOR w/CONFIRMATION LIGHT
5	1	PCS INTERFACE (RACK MOUNTED)
6	1	PCS EMITTER (VEHICLE MOUNTED) (CONTACT CITY OF WHEELING FOR LOCATION)
7.	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE

DUAL RING PHASING



EXISTING SIGNAL HEADS (REUSE)

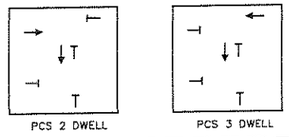


FLASH SEQUENCE

HEAD NO.	FLASH
3, 4, 5 6, 7, 8	Y
1, 2, 9 10, 11, 12, 13	R

I/S NO. 2 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



I/S NO. 2 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID TIHS WORK & MATERIAL AS ITEM 660001-001(02).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(02).
4. NEW LOOPS TO BE INSTALLED IN FINAL PAVEMENT FOR US 40 WB THRU LANES. THESE TO BE PROPERLY SPLICED TO EXISTING DETECTOR FEEDER CABLE WITHIN EXISTING JB. BID AS PART OF ITEM 660007-001(02). ALL OTHER LOOPS ARE EXISTING TO BE REUSED.
5. THE EXISTING SIGNAL POLES AND CONDUCTOR CABLE SHALL BE REUSED.
6. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 1 AND NO. 3 THESE CABLES SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER.
7. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON SIGNAL MAST ARMS AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.
8. INSTALL ANTENNA AND RADIO TRANSCEIVER AS DESCRIBED IN THESE PLANS. I/S NOS. 1, 2 AND 3 TO BE RESPONSIVE TO THE NEW MASTER CONTROLLER AT I/S NO. 4.

ESTIMATE OF QUANTITIES (I/S NO. 2)

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(02) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE
5	2	PCS DETECTOR w/CONFIRMATION LIGHT
6	1	PCS INTERFACE (RACK MOUNTED)

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

I/S NO. 1 & I/S NO. 2 Signal Work Description
NATIONAL RD. at PARK RD. SIGNAL SYSTEM
WHEELING, OHIO CO.

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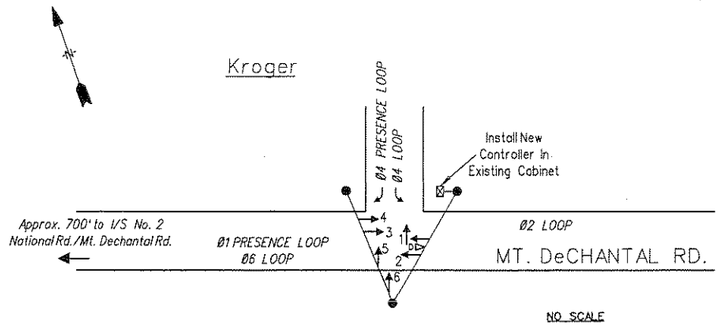
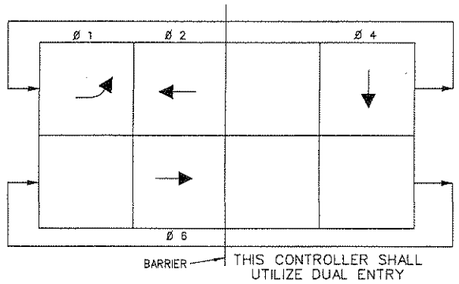
I/S NO. 3 (MT. DeCHANTAL RD./KROGER)



LEGEND

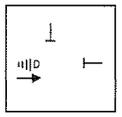
- CONTROLLER
- JUNCTION BOX (TYPE H) EXISTING
- CONDUIT (EXISTING)
- LOOP DETECTOR
- SIGNAL POLE (EXISTING)
- TRAFFIC SIGNAL HEAD
- PCS PRIORITY CONTROL SYSTEM
- PCS DETECTOR
- PCS EMITTER

DUAL RING PHASING



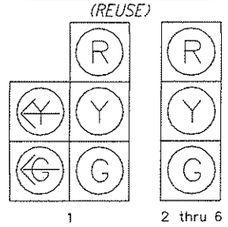
I/S NO. 3 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



EXISTING SIGNAL HEADS

(REUSE)



FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4	Y
5, 6	R

I/S NO. 3 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE EXISTING CONTROLLER AND INSTALL A NEW CONTROLLER WITHIN EXISTING CABINET. THIS CONTROLLER SHALL BE REWIRED AS NECESSARY TO MAKE FUNCTION PROPERLY. BID THIS WORK & MATERIAL AS ITEM 660001-001(03).
3. THE EXISTING SIGNAL HEADS, DETECTORS, LOOPS & POWER SERVICE SHALL BE REUSED & REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(03).
4. THE EXISTING SIGNAL POLES AND CONTROLLER CABLE SHALL BE REUSED.
5. THERE IS EXISTING SIGNAL INTERCONNECT CABLE INSTALLED TO THIS CONTROLLER FROM I/S NO. 2. THIS CABLE SHALL BE PROPERLY REATTACHED TO NEW CONTROLLER TO MAKE RESPONSIVE TO NEW MASTER CONTROLLER AT I/S NO. 4 (NATIONAL RD/PARK RD). BID AS PART OF ITEM 660006-001(1). THIS EXISTING CABLE IS INSTALLED IN CONDUIT UNDERGROUND.
6. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (1) SHALL BE INSTALLED ON SIGNAL SPAN WIRE AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.

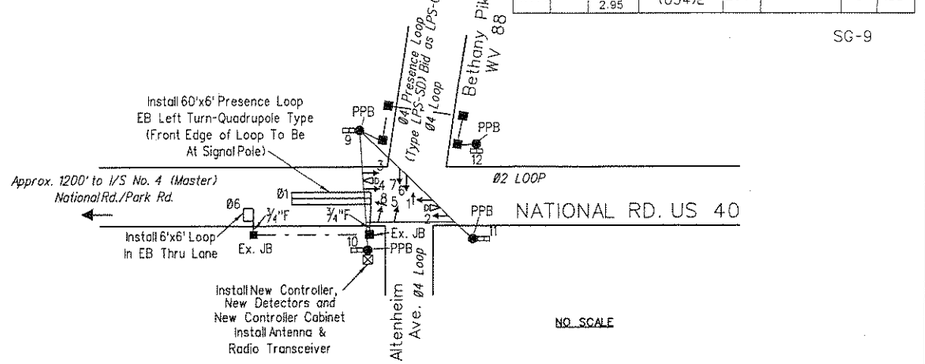
ESTIMATE OF QUANTITIES (I/S NO. 3)

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER (ONLY) - 660001-001(03) TYPE C
2	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
3	AS NEEDED	CONDUCTOR CABLE
4	1	PCS DETECTOR w/CONFIRMATION LIGHT
5	1	PCS INTERFACE (RACK MOUNTED)

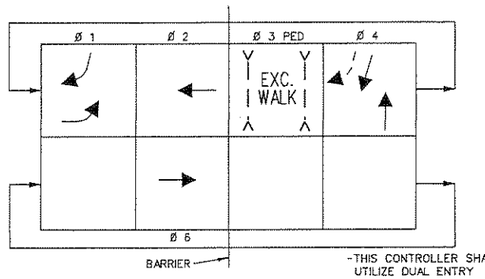
I/S NO. 5 (NATIONAL RD./BETHANY PIKE)

PUBLIC ROADS OFF.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	67	165

SG-9



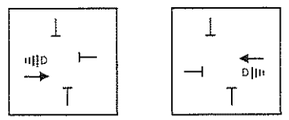
DUAL RING PHASING



-THIS CONTROLLER SHALL UTILIZE DUAL ENTRY
-Ø3 PED IS PPB ACTUATED
-HEAD NO. 8 SHALL HAVE GREEN ARROW OVERLAP FOR PHASE 1

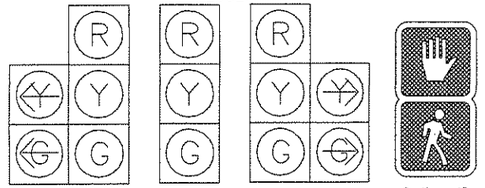
I/S NO. 5 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 & SPECIFICATIONS



EXISTING SIGNAL HEADS

(REUSE)



FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4	Y
5, 6 7, 8	R
9 - 12	DARK

I/S NO. 5 WORK DESCRIPTION

1. THIS IS AN EXISTING SIGNAL.
2. THE CONTRACTOR SHALL REMOVE THE EXISTING CONTROLLER, DETECTORS AND CONTROLLER CABINET. A NEW CONTROLLER, CONTROLLER CABINET AND CARD-RACK TYPE DETECTORS SHALL BE INSTALLED AT THE SAME LOCATION AND POSITION AS EXISTING CABINET. BID CONTROLLER WORK AS ITEM 660001-001(05). BID DETECTOR WORK AS ITEM 660002-005(LPS-C).
3. THE EXISTING SIGNAL HEADS, PPBs AND POWER SERVICE SHALL BE REUSED AND REWIRED TO NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(05).
4. THE EXISTING DETECTOR CABINETS SHALL BE REMOVED AND HOLES IN POLE PLUGGED. BID AS PART OF ITEM 660007-001(05).
5. NEW DETECTOR FEEDER CABLE TO BE PROPERLY SPLICED TO ALL LOOPS (6) IN APPROPRIATE JB AND INSTALLED TO APPROPRIATE NEW DETECTOR IN NEW CONTROLLER TO MAKE FUNCTION PROPERLY. BID AS PART OF ITEM 660007-001(05).
6. NEW LOOP TO BE INSTALLED IN THE US 40 EB THRU LANE AND ALSO THE US 40 EB LEFT TURN LANE (60'x6') AS SHOWN ABOVE. ALL OTHER LOOPS AT THIS INTERSECTION ARE EXISTING TO BE REUSED.
7. THE EXISTING SIGNAL POLES, MESSENGER CABLE AND SIGNAL HEAD CONDUCTOR CABLE SHALL BE REUSED.
8. INSTALL ANTENNA AND RADIO TRANSCEIVER AS DESCRIBED IN THESE PLANS. THIS INTERSECTION TO BE RESPONSIVE TO THE NEW MASTER CONTROLLER AT I/S NO. 4.
9. PRIORITY CONTROL SYSTEM (PCS) DETECTORS (2) SHALL BE INSTALLED ON MESSENGER CABLE AS SHOWN ABOVE AND AS DETAILED IN THESE PLANS & SPECIFICATIONS.

ESTIMATE OF QUANTITIES

LIST	QUANTITY	DESCRIPTION
1	1	CONTROLLER - 660001-001(05) TYPE C
2	1	SIGNAL MONITORING DEVICE
3	1	CONTROLLER CABINET (POLE MOUNT)
4	6	DETECTOR (TYPE LPS-C)
5	AS NEEDED	SAWSLOT, FILLER, LOOP WIRE
6	AS NEEDED	MISCELLANEOUS HARDWARE AND ITEMS
7	AS NEEDED	CONDUIT AND CONDUCTOR CABLE
8	2	PCS DETECTOR w/CONFIRMATION LIGHT
9	1	PCS INTERFACE (RACK MOUNTED)

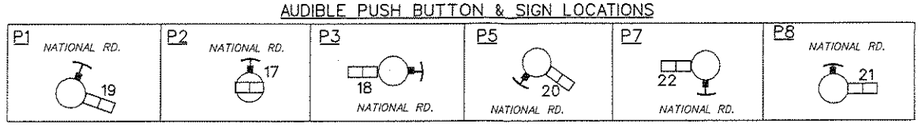
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

I/S NO. 3 & I/S NO. 5 Signal Work Description
NATIONAL RD. at PARK RD. SIGNAL SYSTEM
WHEELING, OHIO CO.

NOTES:

1. CONTRACTOR SHALL USE CAUTION NOT TO DAMAGE EXISTING UNDERGROUND LIGHTING FOR TJ's RESTAURANT NEAR P2. THIS TO BE LOCATED PRIOR TO EXCAVATION IN THIS AREA.
2. EXISTING FENCE TO BE REMOVED THEN REINSTALLED UPON INSTALLATION OF P2. BID AS PART OF ITEM 660007-001(04).
3. USE CAUTION NOT TO DISTURB ANYMORE BUSHES THAN NECESSARY FOR INSTALLATION OF POLE P2.
4. POLE P2 TO BE INSTALLED NEAR FENCE, CONTRACTOR TO MAKE PPB ACCESSIBLE TO ALL PEDESTRIANS.
5. USE CAUTION INSTALLING FOUNDATION FOR POLES P1, P8 & P9, THERE ARE EXISTING TELEPHONE DUCTS NEAR. THESE DUCTS ARE TO BE ABANDONED. CONTACT THE DISTRICT 6 DOH UTILITY SUPERVISOR PRIOR TO INSTALLING THESE FOUNDATIONS.

AUDIBLE PUSH BUTTON & SIGN LOCATIONS



■ - PPB ⊢ - SIGN ▭ - PED HEAD

PUBLIC ROADS DIV.	STATE DIST. NO.	STATE PROJECT NO.	FEDERAL PROJECT NO.	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	6	U335 -40- 2.95	STP-0040 (034)E	2004	OHIO	68	165

★ - USE CAUTION INSTALLING P1 FOUNDATION (ANCHOR BOLT ORIENTATION) AT ANGLES SHOWN IN CHART

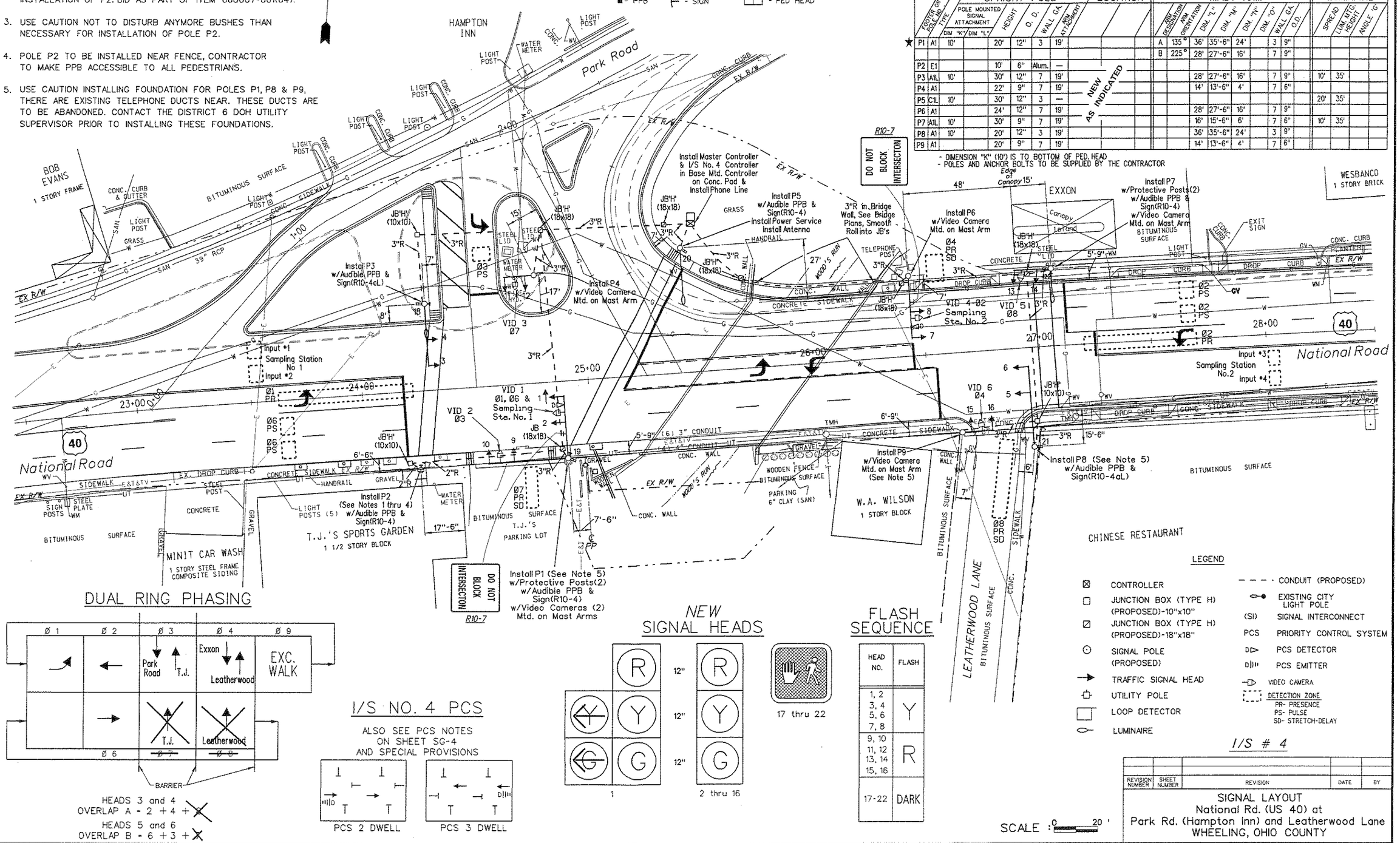
POLE CHART

SG-10

	FOOTER OR POLE NO.	TYPE	UPRIGHT POLE: POLE MOUNTED SIGNAL ATTACHMENT DIM "K"	DIM "L"	HEIGHT	O. D.	WALL GA.	ARM ATTACHMENT	LOCATION	MAST ARM: ARM DESIGNATION	ARM ORIENTATION	DIM. "L"	DIM. "M"	DIM. "W"	DIM. "O"	WALL GA.	O.D.	LUMINAIRE: SPREAD	LUM. MTG. HEIGHT	ANGLE °G
★	P1	A1	10'		20'	12"	3	19'		A	135°	36'	35'-6"	24'		3	9"			
										B	225°	28'	27'-6"	16'		7	9"			
	P2	E1			10'	6"	Alum.	—												
	P3	A1L	10'		30'	12"	7	19'				28'	27'-6"	16'		7	9"	10'	35'	
	P4	A1			22'	9"	7	19'				14'	13'-6"	4'		7	6"			
	P5	C1L	10'		30'	12"	3	—										20'	35'	
	P6	A1			24'	12"	7	19'				28'	27'-6"	16'		7	9"			
	P7	A1L	10'		30'	9"	7	19'				16'	15'-6"	6'		7	6"	10'	35'	
	P8	A1	10'		20'	12"	3	19'				36'	35'-6"	24'		3	9"			
	P9	A1			20'	9"	7	19'				14'	13'-6"	4'		7	6"			

NEW AS INDICATED

- DIMENSION "K" (10') IS TO BOTTOM OF PED. HEAD
- POLES AND ANCHOR BOLTS TO BE SUPPLIED BY THE CONTRACTOR



DUAL RING PHASING

HEADS 3 and 4 OVERLAP A - 2 + 4 + ~~6~~

HEADS 5 and 6 OVERLAP B - 6 + 3 + ~~X~~

I/S NO. 4 PCS

ALSO SEE PCS NOTES ON SHEET SG-4 AND SPECIAL PROVISIONS

PCS 2 DWELL PCS 3 DWELL

NEW SIGNAL HEADS

1 2 thru 16

17 thru 22

FLASH SEQUENCE

HEAD NO.	FLASH
1, 2 3, 4 5, 6 7, 8	Y
9, 10 11, 12 13, 14 15, 16	R
17-22	DARK

LEGEND

- ⊠ CONTROLLER
- □ JUNCTION BOX (TYPE H) (PROPOSED)-10"x10"
- ▨ JUNCTION BOX (TYPE H) (PROPOSED)-18"x18"
- ⊙ SIGNAL POLE (PROPOSED)
- → TRAFFIC SIGNAL HEAD
- ⊕ UTILITY POLE
- ▭ LOOP DETECTOR
- ⬭ LUMINAIRE
- - - - CONDUIT (PROPOSED)
- ⊶ EXISTING CITY LIGHT POLE
- (SI) SIGNAL INTERCONNECT
- PCS PRIORITY CONTROL SYSTEM
- D▷ PCS DETECTOR
- D|||' PCS EMITTER
- ⊣▷ VIDEO CAMERA
- ⋯ DETECTION ZONE PR- PRESENCE PS- PULSE SD- STRETCH-DELAY

I/S # 4

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SIGNAL LAYOUT
National Rd. (US 40) at
Park Rd. (Hampton Inn) and Leatherwood Lane
WHEELING, OHIO COUNTY

SCALE : 0 20 '

D:\Users\Default\afinaljob\D6FINAL\NATRDPK2\nat1.dgn jstewart 08-OCT-2004 10:20 TRAFFIC ENGINEERING DIVISION

SEPAC ECOM All Data

2/10/2020
11:44:33AM

Intersection Name: **US 40 at Bethany Pike (WV 88)** Intersection Alias: **US40&WV88**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: 1 Address: **5**
Revision: **3.32o** IP Address:

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	0-None	4-Grn	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

	Vehical Basic Timings						Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	8	2.0	12	23	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
2	15	5.0	50	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
3	0	4.0	25	30	4.0	1.0			0	0-Advance	0.0	0.0	5	14			No	1	No
4	12	5.0	35	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
5	0	4.0	25	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
6	15	5.0	50	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
7	0	4.0	25	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
8	0	5.0	35	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	No	Yes	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	No	Yes	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Special Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

:

Default Data

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 4.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

I/O Modes:
ABC Input(Entry) Modes: 0
D Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Output(O/STS) Modes: 0

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	1															

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
4	1	1
6	2	7

Phase(s)

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

Alternate Sequences

	Ph. Pair 1
Alt. Seq. 1	**1/2**

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Dat

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 2=Max 2
Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn
Force Mode: 1=Cycle
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Dial/Split	Cycle
1/1	95
1/2	95
1/3	95
1/4	95
2/1	115
2/2	115
2/3	115
2/4	115
3/1	115
3/2	115
3/3	115
3/4	115
4/1	115
4/2	115
4/3	115
4/4	115

Split Times and Phase Modes

Dial 1 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	1=Coordinate	3	20	0=Actuated	4	25	0=Actuated
6	50	1=Coordinate									

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	1=Coordinate	3	20	0=Actuated	4	25	0=Actuated
6	50	1=Coordinate									

Dial 1 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	1=Coordinate	3	20	0=Actuated	4	25	0=Actuated
6	50	1=Coordinate									

Dial 1 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	1=Coordinate	3	20	0=Actuated	4	25	0=Actuated
6	50	1=Coordinate									

Dial 2 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 2 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 2 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 2 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 4 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated

6	65	1=Coordinate

Dial 4 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 4 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	28	0=Actuated	2	37	1=Coordinate	3	20	0=Actuated	4	30	0=Actuated
6	65	1=Coordinate									

Traffic Plan Data

Plan: 1/1/1	Offset Time: 46	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/1/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/1	Offset Time: 10	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/1	Offset Time: 10	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/1	Offset Time: 10	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/4/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 3/4/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/1/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/1/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/2/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/2/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/3/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/3/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/4/1	Offset Time: 100	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/4/3	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	6:0	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	1	10:30	2/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	1	18:30	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4	1	22:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5	2	6:0	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6	2	10:30	2/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7	2	18:30	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8	2	22:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
1	1	6	0	☐	☐	☐	☐	☐	☐	☐	X	☐	☐	☐	☐	☐	☐	☐
2	1	22	0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	2	6	0	☐	☐	☐	☐	☐	☐	☐	X	☐	☐	☐	☐	☐	☐	☐
4	2	22	0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								
Coord Adaptive Split	X															

Phase Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt
Preempt 1 = Preempt 2
Preempt 2 = Preempt 3
Preempt 3 = Preempt 4
Preempt 4 = Preempt 5
Preempt 5 = Preempt 6

Preempt Timers

Preempt	NLock	Link to Pmpt	Del	Ext	Dur	Max Call	De Lock-Out	Boun ce	Gate Ext	Min G | W	Select Ped Clear	Select Yel	Select Red	Track Grn	Track Ped	Track Yel	Track Red	Dwell Green	Return Ped Clear	Return Yel	Return Red	Sel Ret Mode
1	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
2	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
3	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
4	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
5	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
6	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	

Preempt 1

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 2

Phase	Exit Phase	Exit Calls
2	Yes	No
8	Yes	No

Preempt 3

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Del ay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap Signal Type	Transit Overlap Blankout

Priority Detector Channels

Priority

Detector

Priority Fixed Phases

Priority

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority

Priority Bank : Level

Partial Priority	Full Priority	Recovery
Alt Seq	Freq. Override	Method
Alt Seq Enabled	Ped skip	Return
Min Walk	Force full Priority	PedWait
	Frequency	PedOverride
	Freq. Level	

Codes: 0 X
FALSE TRUE

Priority : **Priority Bank :** Queue Phase Detector Time **Default data**	**Priority :** **Priority Bank :** Queue Phase Detector Time **Default data**	**Priority :** **Priority Bank :** Queue Phase Detector Time **Default data**
Priority : **Priority Bank :** Queue Phase Detector Time **Default data**	**Priority :** **Priority Bank :** Queue Phase Detector Time **Default data**	**Priority :** **Priority Bank :** Queue Phase Detector Time **Default data**

Priority :									Priority :								
Bank Detector	PE	1A	2A	3A	4A	5A	6A	B	Bank Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data									Default Data								
Priority :									**Priority :**								
Bank Detector	PE	1A	2A	3A	4A	5A	6A	B	**Bank Detector**	PE	1A	2A	3A	4A	5A	6A	B
Default Data									**Default Data**								
Priority :									**Priority :**								
Bank Detector	PE	1A	2A	3A	4A	5A	6A	B	**Bank Detector**	PE	1A	2A	3A	4A	5A	6A	B
Default Data									**Default Data**								

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No									
6	Red	Green	No	**Default Data**				**Default Data**				

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No									
				Default Data				**Default Data**				

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data

Sample Interval: 0

Default Data

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Default Data

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Vehical Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Special Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Default Data - No Diag 1 Values

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Default Data - No Diag 1 Values

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1 Detector_2 Distance :

Dial/Split/Offset

//

Default Data

Speed Trap Low Treshold	Speed Trap High Treshold

Default Data

Volume Detector Data

Report Interval 60

Volume Detector Number	Controller Detector Channel
1	1
2	2
3	75
4	4
6	6

SEPAC ECOM All Data

2/10/2020
11:46:02AM

Intersection Name: **US 40 at Merwin Street** Intersection Alias: **US40&Merwin**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: 1 Address: **1**
Revision: **3.30** IP Address:

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	4-Grn	1-Inact	1-Inact	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

	Vehical Basic Timings						Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	30	4.0	60	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
2	0	5.0	35	50	4.0	1.0			0	0-Advance	0.0	0.0	6	8			No	1	No
3	9	2.0	20	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
4	9	4.0	20	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
5	0	4.0	25	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
6	0	5.0	35	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
7	0	4.0	25	30	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
8	0	5.0	35	50	4.0	1.0			0	0-Advance	0.0	0.0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0			0	0-Advance	0.0	0.0	0	0			No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0.0	0	0	0	0	0.0	Both	Min	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Special Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

:

Default Data

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 4.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq:

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

I/O Modes:
ABC Input(Entry) Modes: 0
D Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Output(O/STS) Modes: 0

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	1	1														
	3	4														

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Ring

Phase	Ring	Next Phase
1	1	2
3	1	4
4	1	1

Phase(s)

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

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Dat

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 0=Inhibit
Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn
Force Mode: 1=Cycle
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Dial/Split	Cycle
1/1	95
1/2	95
1/3	95
1/4	95
2/1	115
2/2	115
2/3	115
2/4	115
3/1	115
3/2	115
3/3	115
3/4	115
4/1	115
4/2	115
4/3	115
4/4	115

Split Times and Phase Modes

Dial 1 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	48	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	48	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 1 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	48	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 1 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	48	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 2 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 2 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 2 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 2 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 4 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 4 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 4 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	68	1=Coordinate	2	15	0=Actuated	3	16	0=Actuated	4	16	0=Actuated

Traffic Plan Data

Plan: 1/1/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/1	Offset Time: 70	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/1	Offset Time: 70	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/1	Offset Time: 70	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/1	Offset Time: 70	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/2	Offset Time: 75	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/1	Offset Time: 113	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/4/2	Offset Time: 75 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/1/1	Offset Time: 113 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/1/2	Offset Time: 75 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/2/1	Offset Time: 113 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/2/2	Offset Time: 75 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/3/1	Offset Time: 113 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/3/2	Offset Time: 75 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/4/1	Offset Time: 113 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
Plan: 4/4/2	Offset Time: 75 Mode: 0=Normal	Alternat Sequence: 0 Special Function: 0	Rg 2 Lag Time: 0 Correction Mode: 0=No	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	2	0:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Phase Omit

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Ped Omit

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Veh Det Coord ReSvc

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Function Phase Recall

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Phase Min Recall

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Veh Det Ped Recall

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Veh Det Bike Recall

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Vehicle Function

Veh Det Switch Omit

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Veh Det Switch Now

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Veh Det Switch Also

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Overlap Function

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day	program_hour	program_minute	LanePhFun

Preemption Data

General Preemption Data

Preempt > Flash	Preempt 2 > Preempt 3	Preempt 4 > Preempt 5
Preempt 1 > Preempt 2	Preempt 3 > Preempt 4	Preempt 5 > Preempt 6

Preempt Timers

Preempt	NLock	Link to Pmpt	Del	Ext	Dur	Max Call	Lock-Out	De Bounce	Gate Ext	Min G | W	Select Ped Clear	Select Yel	Select Red	Track Grn	Track Ped	Track Yel	Track Red	Dwell Green	Return Ped Clear	Return Yel	Return Red	Sel Ret Mode
1	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
2	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
3	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	2.0	10	8	4.0	2.0	
4	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
5	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
6	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	

Preempt 1

Phase	Exit Phase	Exit Calls

Preempt 2

Phase	Exit Phase	Exit Calls

Preempt 3

Phase	Exit Phase	Exit Calls

Preempt 4

Phase	Exit Phase	Exit Calls

Preempt 5

Phase	Exit Phase	Exit Calls

Preempt 6

Phase	Exit Phase	Exit Calls

Priority Timers

Priority	Non-Locking	Del ay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap Signal Type	Transit Overlap Blankout

Priority Detector Channels

Priority

Detector

Priority Fixed Phases

Priority

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority
Priority Bank : Level

Partial Priority	**Full Priority**	**Recovery**
Alt Seq	Freq. Override	Method
Alt Seq Enabled	Ped skip	Return
Min Walk	Force full Priority	PedWait
	Frequency	PedOverride
	Freq. Level	

Codes:	0	X
	FALSE	TRUE

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					A	Red	Grn	No	
								B	Red	Grn	No	

Default Data

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					A	Red	Grn	No	
								B	Red	Grn	No	

Default Data

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	Queue 1 System Detectors	Queue 1 Weight Factor	Queue 2 Detectors	Queue 2 System Detectors	Queue 2 Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval: 0

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Vehical Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Special Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values **Default Data - No Diag 1 Values** **Default Data - No Diag 0 Valu**

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1 Detector_2 Distance :

Default Data

Volume Detector Data

Report Interval 60

Volume Detector Number	Controller Detector Channel
3	3
4	4

Default Data - No Diag 1 Values

Dial/Split/Offset

//

Default Data

Default Data - No Diag 1 Values

Speed Trap Low Treshold	Speed Trap High Treshold

SEPAC ECOM All Data

2/10/2020
11:47:29AM

Intersection Name: **US 40 at Mt. DeChantal** Intersection Alias: **US40&DChntl**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: 1 Address: **2**
Revision: **3.33b** IP Address:

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	0-None	4-Grn	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings / Misc Timings / Pedestrian Timings

Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	10	2.5	25	20	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
2	15	5.0	35	80	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	6	10			No	0	No
3	12	4.0	25	35	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
4	12	5.0	20	35	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	6	10			No	0	No
5	0	4.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
6	15	5.0	50	80	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
7	0	4.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
8	0	5.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No

Vehicle Density Timings / General Control / Miscellaneous / Special Sequence

Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	Both	Min	None	0	No	Yes	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	Both	Min	None	0	No	Yes	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Special Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay

:

Default Data

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 4.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq:

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

I/O Modes:
ABC Input(Entry) Modes: 0
D Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Output(O/STS) Modes: 0

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	1	3														
	2	4														
	4															

Start Green

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
3	1	4
4	1	1
6	2	7

Phase(s)

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

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Dat

Operation Mode: 1=Auto
Coordination Mode: 1=Yield
Maximun Mode: 0=Inhibit
Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn
Force Mode: 1=Cycle
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Dial/Split	Cycle
1/1	95
1/2	95
1/3	95
1/4	95
2/1	115
2/2	115
2/3	115
2/4	115
3/1	115
3/2	115
3/3	115
3/4	115
4/1	115
4/2	115
4/3	115
4/4	115

Split Times and Phase Modes

Dial 1 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	16	0=Actuated	2	25	1=Coordinate	3	30	0=Actuated	4	24	0=Actuated
6	41	1=Coordinate									

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	25	1=Coordinate	3	30	0=Actuated	4	20	0=Actuated
6	45	1=Coordinate									

Dial 1 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	25	1=Coordinate	3	30	0=Actuated	4	20	0=Actuated
6	45	1=Coordinate									

Dial 1 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	25	1=Coordinate	3	30	0=Actuated	4	20	0=Actuated
6	45	1=Coordinate									

Dial 2 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	1=Coordinate	3	33	0=Actuated	4	32	0=Actuated
6	50	1=Coordinate									

Dial 2 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 2 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 2 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Dial 4 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated

6	55	1=Coordinate									
Dial 4 / **Split** 2											
Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									
Dial 4 / **Split** 3											
Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									
Dial 4 / **Split** 4											
Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	30	1=Coordinate	3	35	0=Actuated	4	25	0=Actuated
6	55	1=Coordinate									

Traffic Plan Data

Plan: 1/1/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/1/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/1	Offset Time: 70	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/1/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/4/1	Offset Time: 98	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/4/2	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/4/3	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	6:0	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	1	10:30	2/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	1	18:30	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4	1	22:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5	2	6:0	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6	2	10:30	2/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7	2	18:30	1/1/1		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8	2	22:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Phase Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day	program_hour	program_minute	LanePhFun

Preemption Data

General Preemption Data

Preempt > Flash	Preempt 2 > Preempt 3	Preempt 4 > Preempt 5
Preempt 1 > Preempt 2	Preempt 3 > Preempt 4	Preempt 5 > Preempt 6

Preempt Timers

Preempt	NLock	Link to Pmpt	Del	Ext	Dur	Max Call	Lock-Out	De Bounce	Gate Ext	Min G | W	Select Ped Clear	Select Yel	Select Red	Track Grn	Track Ped	Track Yel	Track Red	Dwell Green	Return Ped Clear	Return Yel	Return Red	Sel Ret Mode
1	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
2	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
3	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
4	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
5	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
6	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	

Preempt 1

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 2

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 3

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 4

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Del ay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap Signal Type	Transit Overlap Blankout

Priority Detector Channels

Priority

Detector

Priority Fixed Phases

Priority

Legend: 0 FALSE 1 TRUE
CO-PHASE
QJ-PHASE

Priority
Priority Bank : Level

Partial Priority	**Full Priority**	**Recovery**
Alt Seq	Freq. Override	Method
Alt Seq Enabled	Ped skip	Return
Min Walk	Force full Priority	PedWait
	Frequency	PedOverride
	Freq. Level	

Codes:	0	X
	FALSE	TRUE

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No									

Default Data **Default Data**

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No									
6	Red	Green	No									

Default Data **Default Data**

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

2nd Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	Queue 1 System Detectors	Queue 1 Weight Factor	Queue 2 Detectors	Queue 2 System Detectors	Queue 2 Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval: 0

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1 Detector_2 Distance :

Default Data

Volume Detector Data

Report Interval 60

Volume Detector Number	Controller Detector Channel
1	1
2	2
3	3
4	4
6	6

Default Data - No Diag 1 Values

Dial/Split/Offset

//

Default Data

Default Data - No Diag 1 Values

Speed Trap Low Treshold	Speed Trap High Treshold

SEPAC ECOM All Data

2/10/2020
11:49:14AM

Intersection Name: **US 40 at Park Road (M)** Intersection Alias: **US40&Park**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **4**
Revision: **3.32o** IP Address:

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	1-Inact	4-Grn	0-None	0-None	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

	Vehical Basic Timings						Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	8	2.0	20	30	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
2	15	5.0	50	80	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
3	7	4.0	20	30	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
4	10	4.0	20	40	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
5	8	2.0	9	9	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
6	15	5.0	50	80	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
7	0	4.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
8	0	5.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	5	17			No	1	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0.0	0.0	0	0			No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	No	Yes	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	NonActI	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	No	Yes	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	NonActI	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:8	8	Veh	0	0.0	0
Veh Det:7	7	Veh	0	0.0	0
Veh Det:6	6	Veh	0	0.0	0
Veh Det:5	5	Veh	0	0.0	0
Veh Det:4	4	Veh	0	0.0	5
Veh Det:3	3	Veh	0	0.0	5
Veh Det:2	2	Veh	0	0.0	0
Veh Det:1	1	Veh	0	0.0	0

Pedestrian Detector

	Assign Phase	Mode	Switch Phase	Extend	Delay
Ped Det:4	9	Ped	0	0.0	0

Default Data

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
:					

Default Data

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 4.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq:

I/O Modes:

ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 0
D Output(O/STS) Modes: 0

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	2	3														
	4	6														

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
3	1	4
4	1	9
5	2	6
6	2	7

Phase(s)

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

Alternate Sequences

	Ph. Pair 1
Alt. Seq. 1	**3/4**

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	25 - Ped Phase 9	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Dat

Operation Mode: 1=Auto

Coordination Mode: 0=Permissive

Maximun Mode: 2=Max 2

Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn

Force Mode: 1=Cycle

Max Dwell Time: 0

Yield Period: 0

Manual Dial: 1

Manual Split: 1

Manual Offset: 1

Dial/Split	Cycle
1/1	95
1/2	95
1/3	95
1/4	95
2/1	115
2/2	115
2/3	115
2/4	115
3/1	115
3/2	115
3/3	115
3/4	115
4/1	115
4/2	115
4/3	115
4/4	115

Split Times and Phase Modes

Dial 1 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	16	0=Actuated	2	26	1=Coordinate	3	15	0=Actuated	4	14	0=Actuated
5	14	0=Actuated	6	28	1=Coordinate	9	24	0=Actuated			

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	16	0=Actuated	2	26	1=Coordinate	3	15	0=Actuated	4	14	0=Actuated
5	14	0=Actuated	6	28	1=Coordinate	9	24	0=Actuated			

Dial 1 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	16	0=Actuated	2	26	1=Coordinate	3	15	0=Actuated	4	14	0=Actuated
5	14	0=Actuated	6	28	1=Coordinate	9	24	0=Actuated			

Dial 1 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	16	0=Actuated	2	26	1=Coordinate	3	15	0=Actuated	4	14	0=Actuated
5	14	0=Actuated	6	28	1=Coordinate	9	24	0=Actuated			

Dial 2 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	23	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	38	1=Coordinate	9	24	0=Actuated			

Dial 2 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	23	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	38	1=Coordinate	9	24	0=Actuated			

Dial 2 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	23	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	38	1=Coordinate	9	24	0=Actuated			

Dial 2 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	23	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	38	1=Coordinate	9	24	0=Actuated			

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 4 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated

5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated

Dial 4 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 4 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	35	1=Coordinate	3	20	0=Actuated	4	16	0=Actuated
5	14	0=Actuated	6	41	1=Coordinate	9	24	0=Actuated			

Traffic Plan Data

Plan: 1/1/1	Offset Time: 78	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/1/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/1/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/1	Offset Time: 78	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/1	Offset Time: 78	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/1	Offset Time: 78	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 1/4/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/1	Offset Time: 44	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/1/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/1	Offset Time: 44	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/2/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/1	Offset Time: 44	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/3/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/1	Offset Time: 44	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 2/4/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 2/4/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/1	Offset Time: 80	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/1	Offset Time: 80	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/2/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 80	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/1	Offset Time: 80	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/2	Offset Time: 25	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/3	Offset Time: 50	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/1	Offset Time: 80	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/2	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/1/3	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/1	Offset Time: 80	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/2	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/2/3	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/1	Offset Time: 80	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/2	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 4/3/3	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 4/4/1	Offset Time: 80	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/4/2	Offset Time: 25	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	
Plan: 4/4/3	Offset Time: 50	Alternat Sequence: 0	Rg 2 Lag Time: 0 Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No	

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	6:0	1/1/1																	
2	1	10:30	2/1/1																	
3	1	18:30	1/1/1																	
4	1	22:0	0/0/4																	
5	2	6:0	1/1/1																	
6	2	10:30	2/1/1																	
7	2	18:30	1/1/1																	
8	2	22:0	0/0/4																	

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
1	1	6	0					X			X							
2	1	22	0				X	X										
3	2	6	0					X			X							
4	2	22	0				X	X										

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								
Coord Adaptive Split	X															

Phase Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase Omit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Ped Omit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Coord ReSvc	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Function Phase Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Phase Min Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Ped Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Bike Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vehicle Function Veh Det Switch Omit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Switch Now	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Switch Also	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Overlap Function	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt
Preempt 1 = Preempt 2
Preempt 2 = Preempt 3
Preempt 3 = Preempt 4
Preempt 4 = Preempt 5
Preempt 5 = Preempt 6

Preempt Timers

Preempt	NLock	Link to Pmpt	Del	Ext	Dur	Max Call	De Lock-Out	Boun ce	Gate Ext	Min G | W	Select Ped Clear	Select Yel	Select Red	Track Grn	Track Ped	Track Yel	Track Red	Dwell Green	Return Ped Clear	Return Yel	Return Red	Sel Ret Mode
1	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
2	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
3	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	0	0	0.0	0.0	10	8	4.0	2.0	
4	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
5	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	
6	N	0	0	0	0	0	0	0.0	0	0	0	8	4.0	2.0	10	8	4.0	2.0	10	8	4.0	2.0	

Preempt 1

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 2

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 3

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Delay	Extend	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap Signal Type	Transit Overlap Blankout

Priority Detector Channels

Priority

Detector

Priority Fixed Phases

Priority

Legend:

	0	1
CO-PHASE	FALSE	TRUE
QJ-PHASE		

Priority

Priority Bank : Level

Partial Priority	**Full Priority**	**Recovery**
Alt Seq	Freq. Override	Method
Alt Seq Enabled	Ped skip	Return
Min Walk	Force full Priority	PedWait
	Frequency	PedOverride
	Freq. Level	

Codes:	0	X
	FALSE	TRUE

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Priority Bank :

Queue Phase	Detector	Time

Default data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :

Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					B	Red	Grn	No	
6	Red	Green	No	**Default Data**								

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No					A	Red	Grn	No	
5	Red	Green	No	**Default Data**								

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval: 60

Queue: 1 Input Selection: 0=Average **Queue:**

Detector Failed Level : 0 Level Enter Leave Dial / Split / Offset

Queue: 2 Input Selection: 0=Average / /

Detector Failed Level : 0 **Default Data**

Vehical Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count
1	30	60	0
2	30	10	0
3	30	240	0
4	30	180	0
5	30	240	0
6	30	10	0

Vehical Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Speed Trap Low Treshold	Speed Trap High Treshold	Dial/Split/Offset
		//

Default Data

Default Data

Volume Detector Data

Report Interval 60

Volume Detector Number	Controller Detector Channel
1	1
2	2
3	3
4	4
5	5
6	6
9	76
10	65
11	66
12	67
13	68

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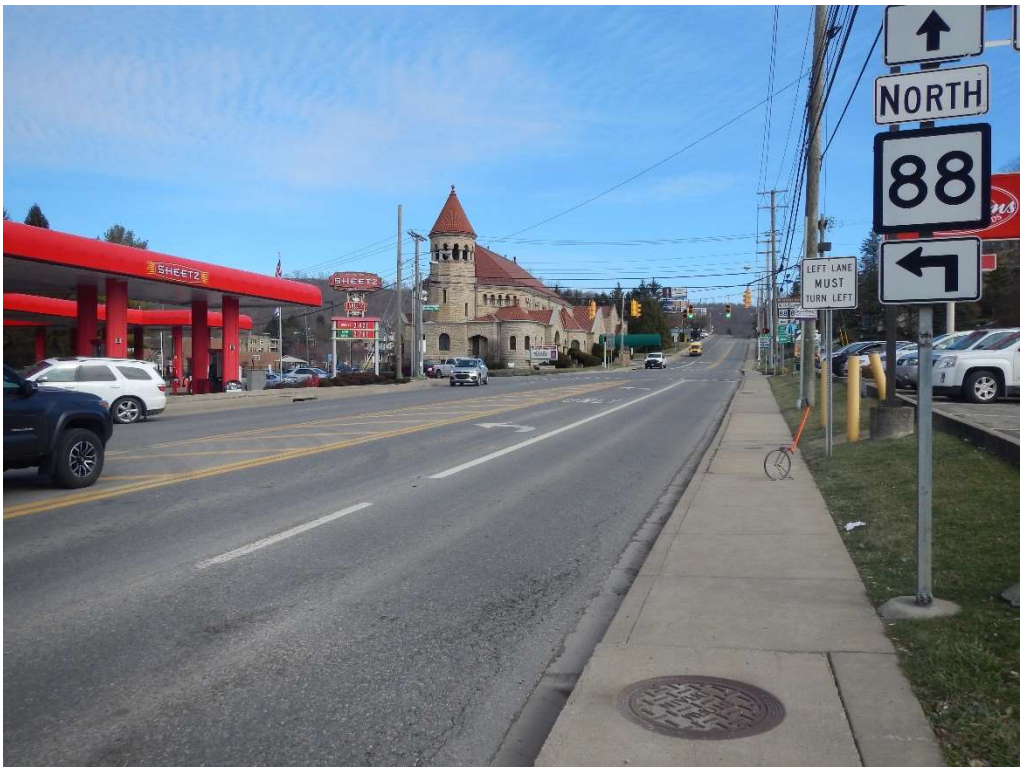
Appendix C. Study Intersections Photographs

US Route 40 (National Road) & WV 88 (Bethany Pike)

EASTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Eastbound US Route 40 approach provides 1 left turn lane and 1 shared lane of travel for the through and right turn movements.

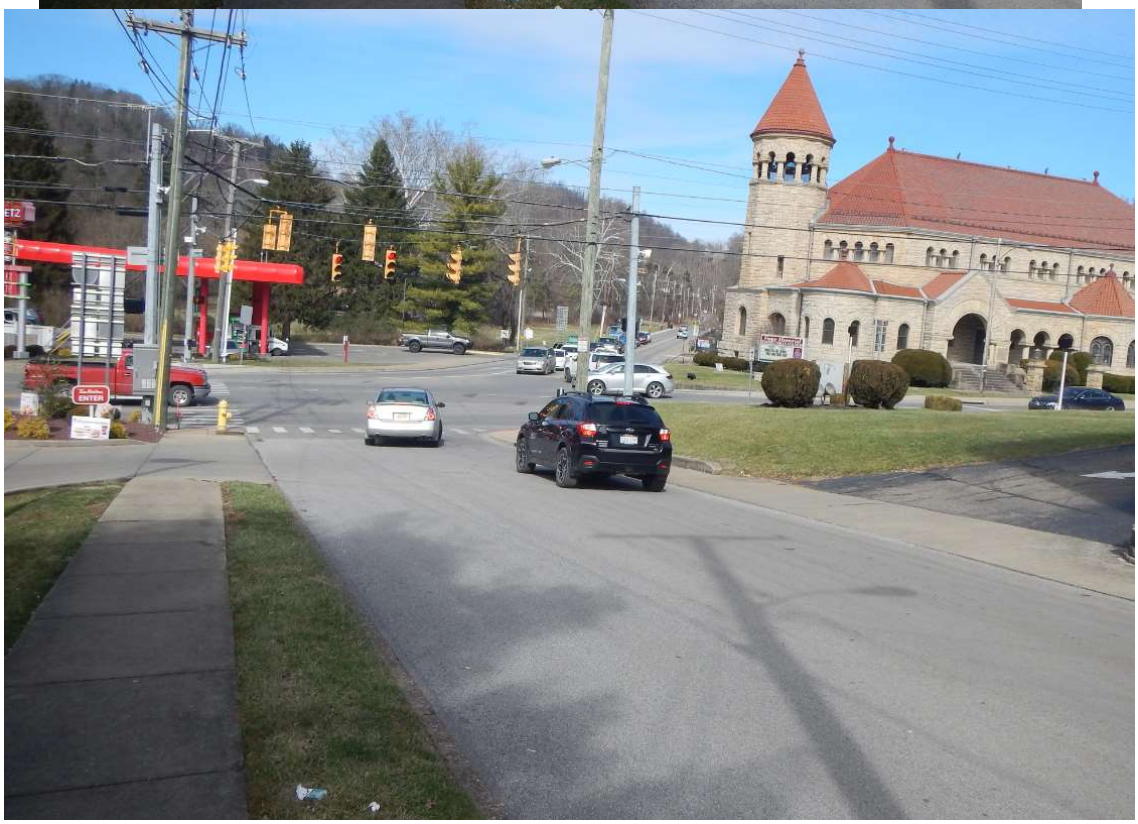


US Route 40 (National Road) & WV 88 (Bethany Pike)

WESTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Westbound US Route 40 approach provides 1 shared lane of travel for the left turn and through movements and 1 shared lane of travel for the right turn and through movements.

US Route 40 (National Road) & WV 88 (Bethany Pike)

NORTHBOUND ALTENHEIM AVENUE APPROACH: Northbound Altenhaim Avenue has 1 shared lane of travel for the left turn, through and right turn movements.



US Route 40 (National Road) & WV 88 (Bethany Pike)

SOUTHBOUND WV 88 (BETAHNY PIKE) APPROACH: Southbound WV 88 has 1 shared lane of travel for the left turn and through movements and 1 lane of travel for the right turn movement.

WV 88 (Bethany Pike) & GC&P Road (CR 7)

NORTHEASTBOUND WV 88 (BETHANY PIKE) APPROACH: Northeastbound WV 88 has 1 shared lane of travel for the through and right turn movements and 1 lane for the left turn movement.

WV 88 (Bethany Pike) & GC&P Road (CR 7)

WESTBOUND WV 88 (BETHANY PIKE) APPROACH: Westbound WV 88 has 1 shared lane of travel for the left turn, through and right turn movements.

WV 88 (Bethany Pike) & GC&P Road (CR 7)

NORTHBOUND CHURCH DRIVEWAY APPROACH: Northbound Church Driveway has 1 travel lane for the left turn, through and right turn movements.

WV 88 (Bethany Pike) & GC&P Road (CR 7)

SOUTHBOUND GC&P ROAD (CR 7) APPROACH: Southbound GC&P Road has 1 travel lane for the left turn, through and right turn movements.

US Route 40 (National Road) & Park Road

EASTBOUND US Route 40 (NATIONAL ROAD) APPROACH: Eastbound US Route 40 has 1 travel lane for the left turn movement, 1 travel lane for the through movement and 1 travel lane for the through and right turn movements.

US Route 40 (National Road) & Park Road

WESTBOUND US Route 40 (NATIONAL ROAD) APPROACH: Westbound US Route 40 has 1 travel lane for the left turn movement, 1 travel lane for the through movement and 1 travel lane for the through and right turn movements.

US Route 40 (National Road) & Park Road

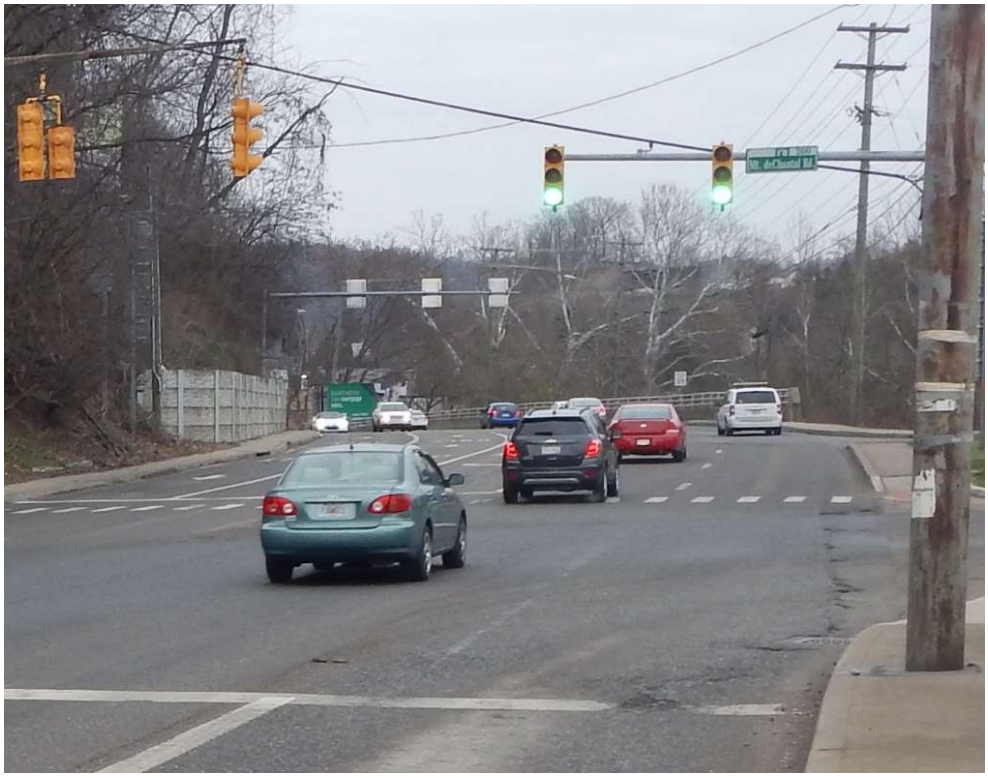
NORTHBOUND TJ'S DRIVEWAY APPROACH: TJ's Driveway has 1 travel lane for the left turn, through and right turn movements.

US Route 40 (National Road) & Park Road

SOUTHBOUND PARK ROAD APPROACH: Park Road has 1 travel lane for the left turn and through movements and 1 travel lane for the right turn movement.

US Route 40 (National Road) & Mt. DeChantal Road/I-70 Off-Ramp Right Turns

EASTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Eastbound US Route 40 has 2 travel lanes for the through movements.



US Route 40 (National Road) & Mt. DeChantal Road/I-70 Off-Ramp Right Turns

WESTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Westbound US Route 40 has 3 travel lanes for the through movement.

US Route 40 (National Road) & Mt. DeChantal Road/I-70 Off-Ramp Right Turns

NORTHBOUND MT. DECHANTAL ROAD/I-70 OFF-RAMP RIGHT TURNS APPROACH: Northbound Mt. DeChantal Road/I-70 Off-Ramp Right Turns has 2 travel lanes for the right turn movement.

Mt. DeChantal Road & I-70 EB Off-Ramp

EASTBOUND I-70 EB OFF-RAMP APPROACH: Eastbound I-70 EB Off-Ramp has 1 travel lane for the left turn and through movements and 1 travel lane for the through and right turn movements.

Mt. DeChantal Road & I-70 EB Off-Ramp

NORTHBOUND MT. DECHANTAL ROAD APPROACH: Northbound Mt. DeChantal Road has 1 travel lane for the through movement and 1 shared travel lane for the through and right turn movements.

Mt. DeChantal Road & I-70 EB Off-Ramp

SOUTHBOUND MT. DECHANTAL ROAD APPROACH: Southbound Mt. DeChantal Road has 1 travel lane for the through movement.

US Route 40 (National Road) & Mt. DeChantal Road

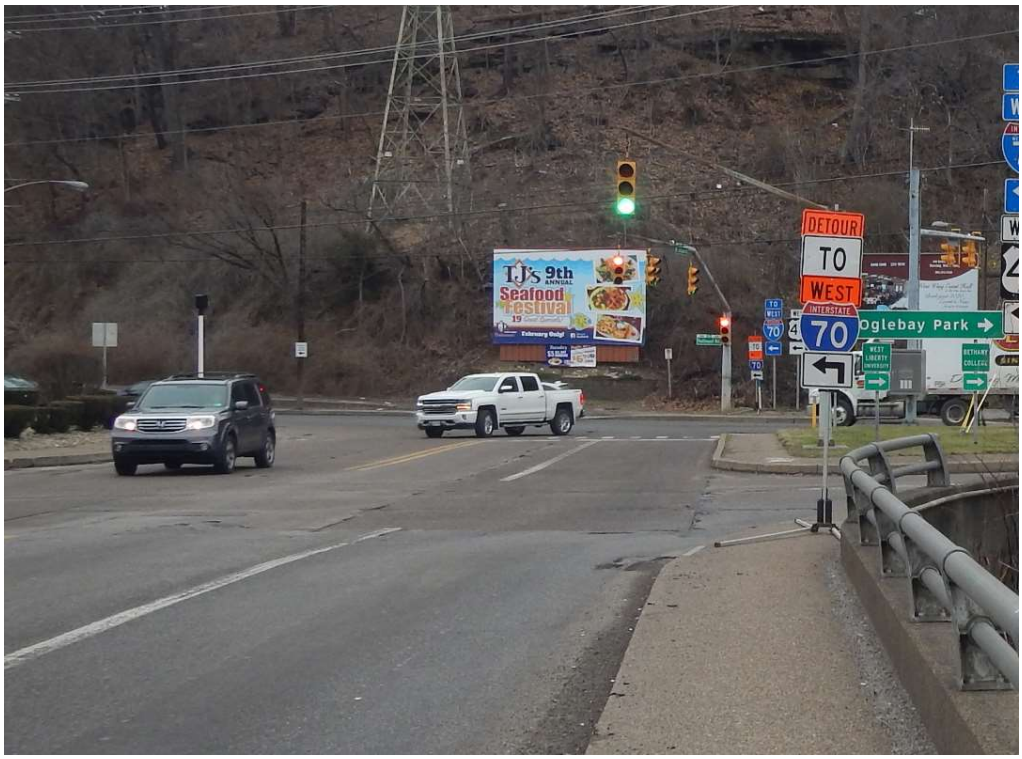
EASTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Eastbound US Route 40 has 1 travel lane for the through movement and 1 shared travel lane for the through and right turn movements.

US Route 40 (National Road) & Mt. DeChantal Road

WESTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Westbound US Route 40 has 1 travel lane for the left turn movement and 2 travel lanes for the through movement.

US Route 40 (National Road) & Mt. DeChantal Road

NORTHBOUND MT. DECHANTAL ROAD APPROACH: Northbound Mt. DeChantal Road has 2 travel lanes for the left turn movement.



Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Driveway

WESTBOUND KROGER'S DRIVEWAY APPROACH: Westbound Kroger's Driveway has 1 travel lane for the left turn movement and 1 travel lanes for the right turn movement.

Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Driveway

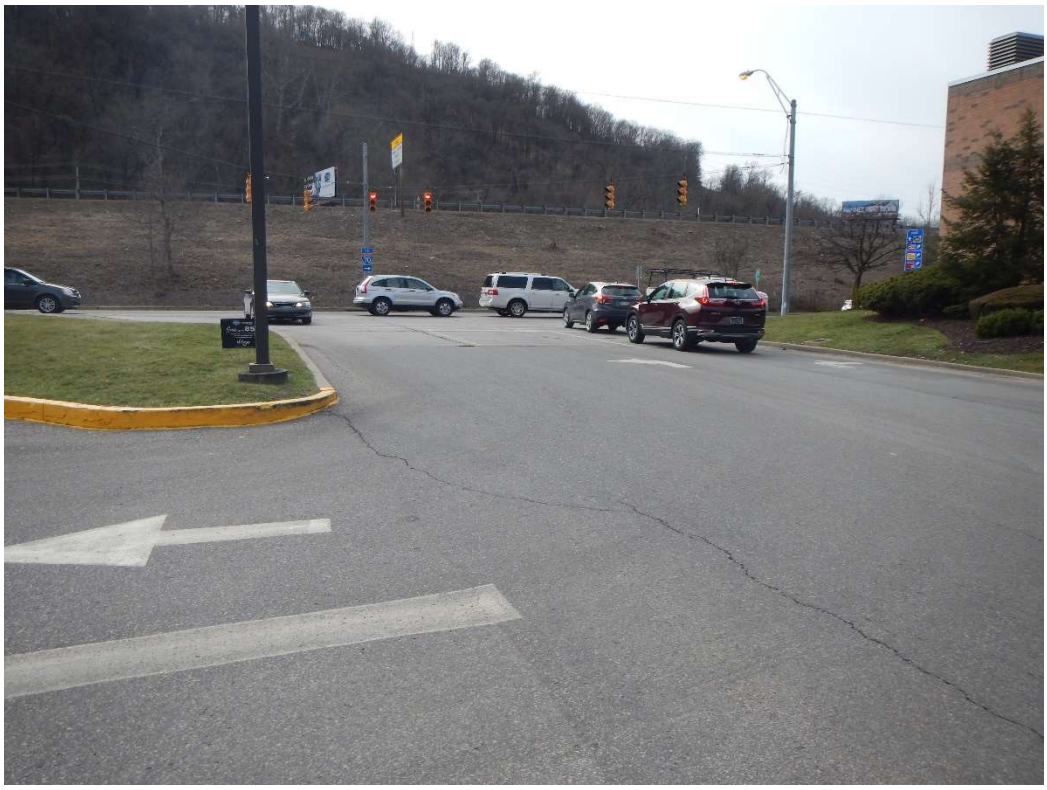
NORTHBOUND MT. DECHANTAL ROAD APPROACH: Northbound Mt. DeChantal Road has 1 travel lane for the left turn movement and 1 travel lane for the through movement.

Mt. DeChantal Road & I-70 EB On-Ramp/Kroger's Driveway

SOUTHBOUND MT. DECHANTAL ROAD APPROACH: Southbound Mt. DeChantal Road has 1 shared travel lane for the through and right turn movements.

Mt. DeChantal Road & Kroger's Driveway

WESTBOUND KROGER'S DRIVEWAY APPROACH: Westbound Kroger's Driveway has 1 travel lane for the left turn movement and 1 travel lanes for the right turn movement.



Mt. DeChantal Road & Kroger's Driveway

NORTHBOUND MT. DECHANTAL ROAD APPROACH: Northbound Mt. DeChantal Road has 1 travel lane for the through movement and 1 travel lane for the right turn movement.

Mt. DeChantal Road & Kroger's Driveway

SOUTHBOUND MT. DECHANTAL ROAD APPROACH: Southbound Mt. DeChantal Road has 1 travel lane for the left turn movement and 1 travel lane for the through movement.

US Route 40 (National Road) & I-70 WB On-Ramp

EASTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Eastbound US Route 40 has 1 travel lane for the through movement and 1 shared travel lane for the through and right turn movements.

US Route 40 (National Road) & I-70 WB On-Ramp

WESTBOUND US ROUTE 40 (NATIONAL ROAD) APPROACH: Westbound US Route 40 has 1 shared travel lane for the left turn and through movements and 1 travel lane for the through movement.

WV 88 (Bethany Pike) & Warden Run Road (CR 15)/Oglebay Drive

NORTHEASTBOUND WV 88 (BETHANY PIKE) APPROACH: Eastbound WV 88 has 1 shared travel lane for the left turn and through movements.

WV 88 (Bethany Pike) & Warden Run Road (CR 15)/Oglebay Drive

WESTBOUND WARDEN RUN ROAD (CR 15) APPROACH: Westbound Warden Run Road has 1 shared travel lane for the through and right turn movements.

WV 88 (Bethany Pike) & Warden Run Road (CR 15)/Oglebay Drive

SOUTHWESTBOUND WV 88 (OGLEBAY DRIVE) APPROACH: Southwestbound WV 88 has 1 shared travel lane for the left turn and right turn movements.

WV 88 (Bethany Pike) & Proposed West Driveway

NORTHBOUND WV 88 (BETHANY PIKE) APPROACH: Northbound WV 88 currently has 1 travel lane for the through movement that could also be used for the right turn movement into the proposed driveway.

WV 88 (Bethany Pike) & Proposed West Driveway

WESTBOUND PROPOSED WEST DRIVEWAY APPROACH: The existing westbound landscape supply driveway has 1 travel lane for the left turn, through and right turn movements.

WV 88 (Bethany Pike) & Proposed West Driveway

SOUTHBOUND WV 88 (BETHANY PIKE) APPROACH: Southbound WV 88 currently has 1 travel lane for the through movement that could also be used for the left turn movement into the proposed driveway.

Warden Run Road (CR 15) & Proposed East Driveway

EASTBOUND WARDEN RUN ROAD (CR 15) APPROACH: Eastbound Warden Run Road currently has 1 travel lane for the through movement that could also be used for the right turn movement into the proposed driveway.

Warden Run Road (CR 15) & Proposed East Driveway

WESTBOUND WARDEN RUN ROAD (CR 15) APPROACH: Westbound Warden Run Road currently has 1 travel lane for the through movement that could also be used for the left turn movement into the proposed driveway.

Warden Run Road (CR 15) & Proposed East Driveway

NORTHBOUND PROPOSED EAST DRIVEWAY APPROACH: The Northbound proposed driveway currently has 1 travel lane for the left turn, through and right turn movements.

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Appendix D. Turning Movement Count Data and Daily Count Data

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Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Route 40 Eastbound							Route 40 Westbound							Altenheim Ave Northbound							Bethany Pike Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	50	32	0	1	0	0	83	4	42	0	0	0	0	46	19	5	5	1	0	0	30	11	0	38	50	0	0	99	258
7:15 AM	71	34	0	0	0	0	105	1	71	12	2	0	0	86	30	9	8	0	0	0	47	18	2	60	43	0	0	123	361
7:30 AM	69	45	0	0	0	0	114	3	66	16	2	0	0	87	49	6	13	2	0	0	70	22	0	72	63	0	0	157	428
7:45 AM	74	70	0	0	0	2	144	1	62	16	4	0	0	83	82	17	9	2	0	0	110	40	0	53	67	0	0	160	497
Hourly Total	264	181	0	1	0	2	446	9	241	44	8	0	0	302	180	37	35	5	0	0	257	91	2	223	223	0	0	539	1544
8:00 AM	87	35	0	2	0	0	124	4	82	20	2	0	0	108	24	7	5	3	0	0	39	46	1	31	56	0	0	134	405
8:15 AM	71	48	1	0	0	0	120	2	72	19	3	0	0	96	17	7	9	1	0	2	34	16	1	43	53	0	0	113	363
8:30 AM	61	43	1	0	0	0	105	3	66	26	10	0	0	105	18	6	3	5	0	0	32	22	2	55	47	0	0	126	368
8:45 AM	62	52	0	1	0	1	115	2	58	15	4	0	0	79	16	5	5	1	0	2	27	25	4	63	51	0	0	143	364
Hourly Total	281	178	2	3	0	1	464	11	278	80	19	0	0	388	75	25	22	10	0	4	132	109	8	192	207	0	0	516	1500
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	89	89	0	1	0	0	179	1	114	35	2	0	0	152	83	11	13	2	0	0	109	30	1	39	43	0	0	113	553
3:15 PM	82	81	1	0	0	7	164	0	96	43	2	0	0	141	48	16	10	3	0	0	77	23	1	56	44	0	0	124	506
3:30 PM	93	73	5	0	0	2	171	3	95	38	5	0	0	141	25	8	9	2	0	0	44	20	0	36	55	0	0	111	467
3:45 PM	105	94	1	0	0	0	200	0	107	32	0	0	0	139	7	7	10	3	0	1	27	34	2	58	64	0	0	158	524
Hourly Total	369	337	7	1	0	9	714	4	412	148	9	0	0	573	163	42	42	10	0	1	257	107	4	189	206	0	0	506	2050
4:00 PM	100	78	2	0	0	0	180	2	84	27	2	0	0	115	20	4	5	3	0	0	32	36	0	27	52	0	0	115	442
4:15 PM	89	69	0	1	0	0	159	3	88	28	8	0	0	127	15	4	2	2	0	0	23	33	1	44	41	0	0	119	428
4:30 PM	100	105	0	1	0	0	206	3	111	19	4	0	0	137	18	8	13	2	0	0	41	34	1	36	48	0	0	119	503
4:45 PM	95	96	0	0	0	0	191	2	99	31	6	0	0	138	14	10	4	1	0	0	29	27	0	45	40	0	0	112	470
Hourly Total	384	348	2	2	0	0	736	10	382	105	20	0	0	517	67	26	24	8	0	0	125	130	2	152	181	0	0	465	1843
5:00 PM	109	106	0	0	0	0	215	0	97	35	9	0	0	141	7	6	3	2	0	0	18	31	0	51	50	0	0	132	506
5:15 PM	102	125	2	0	0	0	229	0	80	26	3	0	0	109	21	3	7	4	0	1	35	29	0	52	46	0	0	127	500
5:30 PM	78	78	2	0	0	0	158	0	84	25	1	0	0	110	7	7	8	1	0	0	23	20	0	40	40	0	0	100	391
5:45 PM	83	79	1	0	0	0	163	0	92	33	1	0	0	126	14	0	7	0	0	0	21	28	0	27	38	0	0	93	403
Hourly Total	372	388	5	0	0	0	765	0	353	119	14	0	0	486	49	16	25	7	0	1	97	108	0	170	174	0	0	452	1800
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1670	1432	16	7	0	12	3125	34	1666	496	70	0	0	2266	534	146	148	40	0	6	868	545	16	926	991	0	0	2478	8737
Approach %	53.4	45.8	0.5	0.2	0.0	-	-	1.5	73.5	21.9	3.1	0.0	-	-	61.5	16.8	17.1	4.6	0.0	-	-	22.0	0.6	37.4	40.0	0.0	-	-	-
Total %	19.1	16.4	0.2	0.1	0.0	-	35.8	0.4	19.1	5.7	0.8	0.0	-	25.9	6.1	1.7	1.7	0.5	0.0	-	9.9	6.2	0.2	10.6	11.3	0.0	-	28.4	-
Lights	1634	1381	16	7	0	-	3038	34	1625	489	69	0	-	2217	530	146	147	40	0	-	863	539	16	897	962	0	-	2414	8532
% Lights	97.8	96.4	100.0	100.0	-	-	97.2	100.0	97.5	98.6	98.6	-	-	97.8	99.3	100.0	99.3	100.0	-	-	99.4	98.9	100.0	96.9	97.1	-	-	97.4	97.7
Buses	9	29	0	0	0	-	38	0	24	3	1	0	-	28	3	0	0	0	0	-	3	3	0	17	12	0	-	32	101
% Buses	0.5	2.0	0.0	0.0	-	-	1.2	0.0	1.4	0.6	1.4	-	-	1.2	0.6	0.0	0.0	0.0	-	-	0.3	0.6	0.0	1.8	1.2	-	-	1.3	1.2
Trucks	27	22	0	0	0	-	49	0	17	4	0	0	-	21	1	0	1	0	0	-	2	3	0	12	17	0	-	32	104
% Trucks	1.6	1.5	0.0	0.0	-	-	1.6	0.0	1.0	0.8	0.0	-	-	0.9	0.2	0.0	0.7	0.0	-	-	0.2	0.6	0.0	1.3	1.7	-	-	1.3	1.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	12	-	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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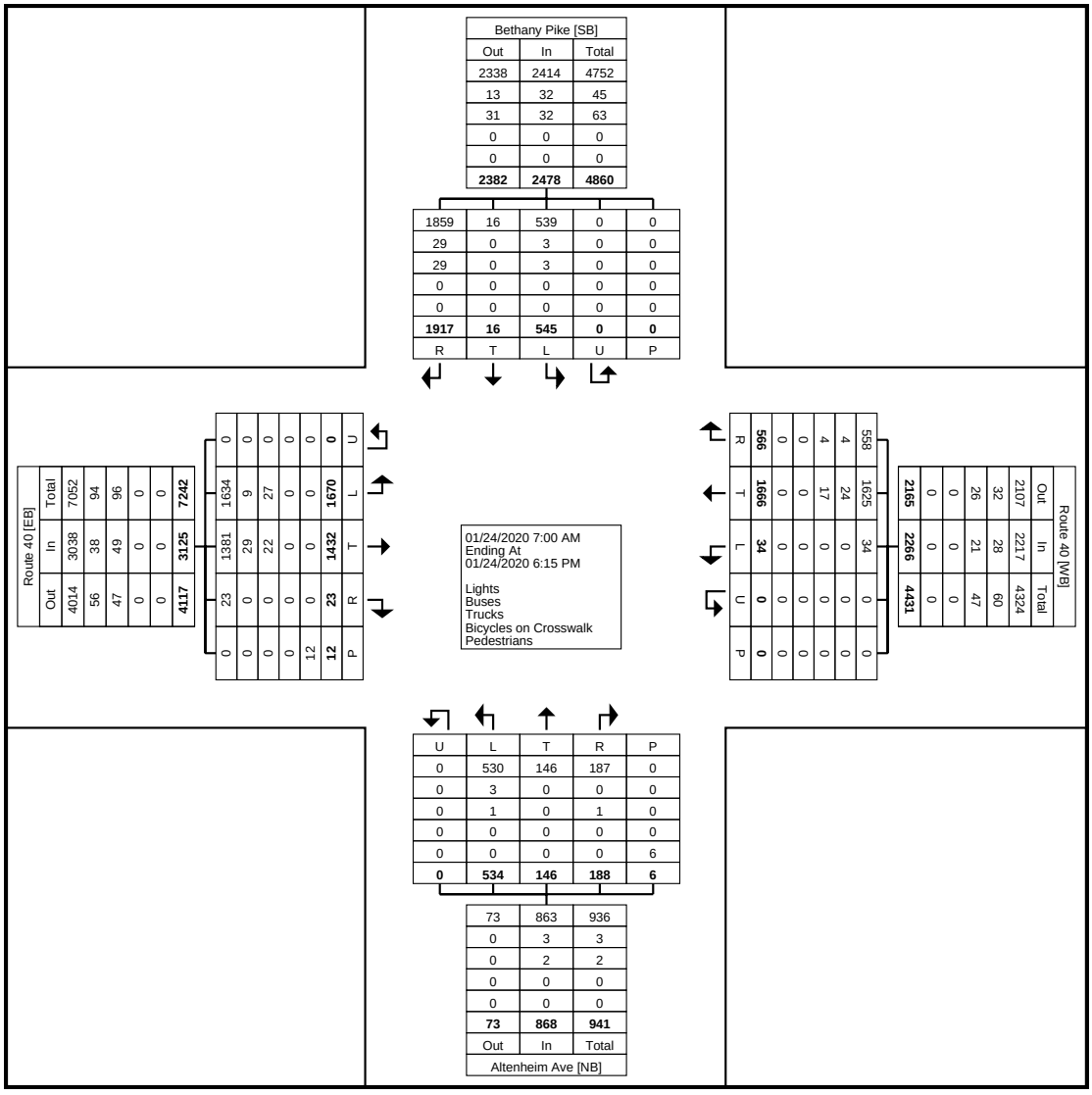
Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Altenheim Ave Northbound							Bethany Pike Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:30 AM	69	45	0	0	0	0	114	3	66	16	2	0	0	87	49	6	13	2	0	0	70	22	0	72	63	0	0	157	428
7:45 AM	74	70	0	0	0	2	144	1	62	16	4	0	0	83	82	17	9	2	0	0	110	40	0	53	67	0	0	160	497
8:00 AM	87	35	0	2	0	0	124	4	82	20	2	0	0	108	24	7	5	3	0	0	39	46	1	31	56	0	0	134	405
8:15 AM	71	48	1	0	0	0	120	2	72	19	3	0	0	96	17	7	9	1	0	2	34	16	1	43	53	0	0	113	363
Total	301	198	1	2	0	2	502	10	282	71	11	0	0	374	172	37	36	8	0	2	253	124	2	199	239	0	0	564	1693
Approach %	60.0	39.4	0.2	0.4	0.0	-	-	2.7	75.4	19.0	2.9	0.0	-	-	68.0	14.6	14.2	3.2	0.0	-	-	22.0	0.4	35.3	42.4	0.0	-	-	-
Total %	17.8	11.7	0.1	0.1	0.0	-	29.7	0.6	16.7	4.2	0.6	0.0	-	22.1	10.2	2.2	2.1	0.5	0.0	-	14.9	7.3	0.1	11.8	14.1	0.0	-	33.3	-
PHF	0.865	0.707	0.250	0.250	0.000	-	0.872	0.625	0.860	0.888	0.688	0.000	-	0.866	0.524	0.544	0.692	0.667	0.000	-	0.575	0.674	0.500	0.691	0.892	0.000	-	0.881	0.852
Lights	285	177	1	2	0	-	465	10	273	70	10	0	-	363	170	37	35	8	0	-	250	121	2	194	233	0	-	550	1628
% Lights	94.7	89.4	100.0	100.0	-	-	92.6	100.0	96.8	98.6	90.9	-	-	97.1	98.8	100.0	97.2	100.0	-	-	98.8	97.6	100.0	97.5	97.5	-	-	97.5	96.2
Buses	4	10	0	0	0	-	14	0	4	0	1	0	-	5	1	0	0	0	0	-	1	1	0	0	1	0	-	2	22
% Buses	1.3	5.1	0.0	0.0	-	-	2.8	0.0	1.4	0.0	9.1	-	-	1.3	0.6	0.0	0.0	0.0	-	-	0.4	0.8	0.0	0.0	0.4	-	-	0.4	1.3
Trucks	12	11	0	0	0	-	23	0	5	1	0	0	-	6	1	0	1	0	0	-	2	2	0	5	5	0	-	12	43
% Trucks	4.0	5.6	0.0	0.0	-	-	4.6	0.0	1.8	1.4	0.0	-	-	1.6	0.6	0.0	2.8	0.0	-	-	0.8	1.6	0.0	2.5	2.1	-	-	2.1	2.5
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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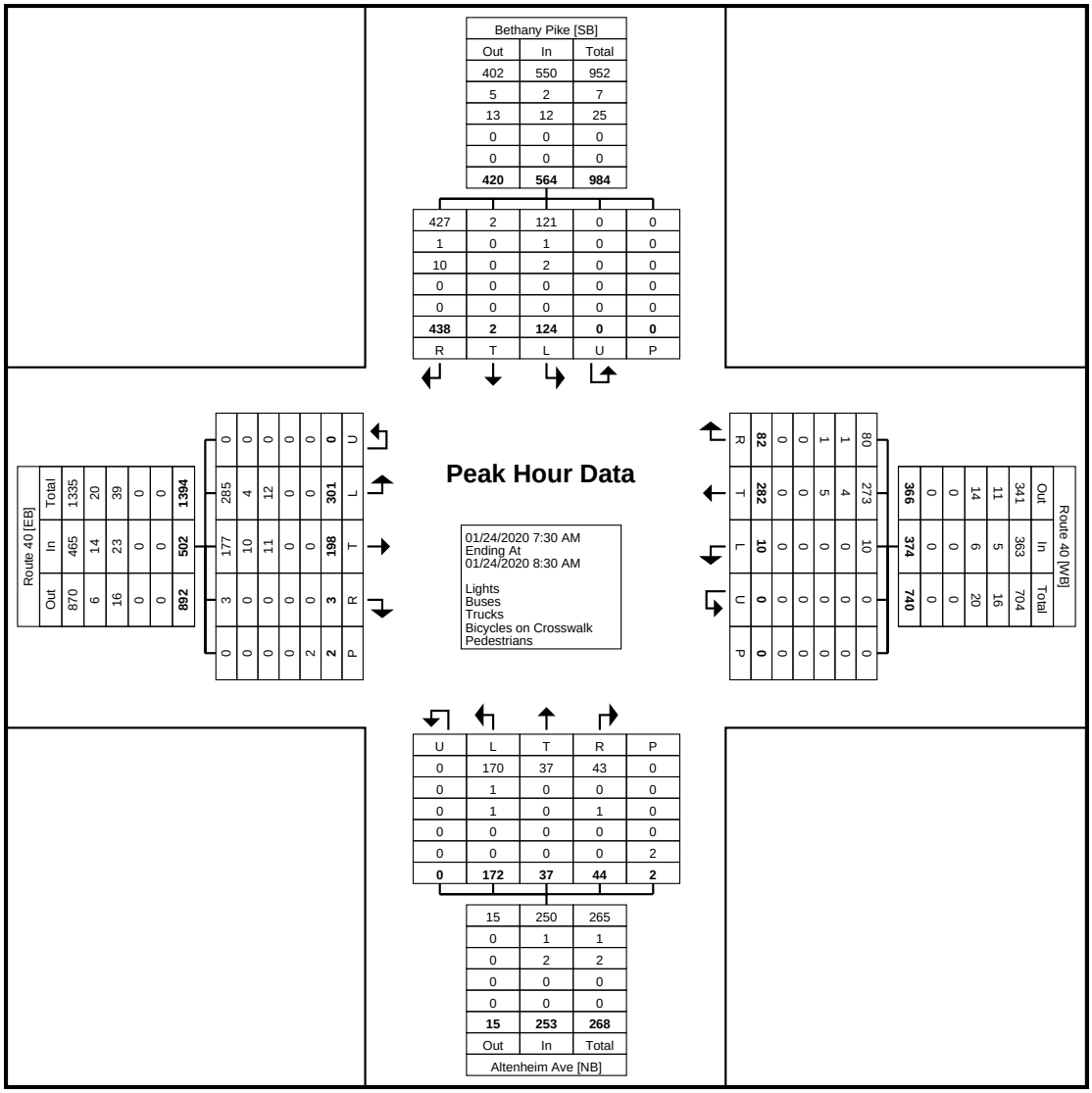
Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

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Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (3:00 PM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Altenheim Ave Northbound							Bethany Pike Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
3:00 PM	89	89	0	1	0	0	179	1	114	35	2	0	0	152	83	11	13	2	0	0	109	30	1	39	43	0	0	113	553
3:15 PM	82	81	1	0	0	7	164	0	96	43	2	0	0	141	48	16	10	3	0	0	77	23	1	56	44	0	0	124	506
3:30 PM	93	73	5	0	0	2	171	3	95	38	5	0	0	141	25	8	9	2	0	0	44	20	0	36	55	0	0	111	467
3:45 PM	105	94	1	0	0	0	200	0	107	32	0	0	0	139	7	7	10	3	0	1	27	34	2	58	64	0	0	158	524
Total	369	337	7	1	0	9	714	4	412	148	9	0	0	573	163	42	42	10	0	1	257	107	4	189	206	0	0	506	2050
Approach %	51.7	47.2	1.0	0.1	0.0	-	-	0.7	71.9	25.8	1.6	0.0	-	-	63.4	16.3	16.3	3.9	0.0	-	-	21.1	0.8	37.4	40.7	0.0	-	-	-
Total %	18.0	16.4	0.3	0.0	0.0	-	34.8	0.2	20.1	7.2	0.4	0.0	-	28.0	8.0	2.0	2.0	0.5	0.0	-	12.5	5.2	0.2	9.2	10.0	0.0	-	24.7	-
PHF	0.879	0.896	0.350	0.250	0.000	-	0.893	0.333	0.904	0.860	0.450	0.000	-	0.942	0.491	0.656	0.808	0.833	0.000	-	0.589	0.787	0.500	0.815	0.805	0.000	-	0.801	0.927
Lights	366	326	7	1	0	-	700	4	404	147	9	0	-	564	162	42	42	10	0	-	256	106	4	184	201	0	-	495	2015
% Lights	99.2	96.7	100.0	100.0	-	-	98.0	100.0	98.1	99.3	100.0	-	-	98.4	99.4	100.0	100.0	100.0	-	-	99.6	99.1	100.0	97.4	97.6	-	-	97.8	98.3
Buses	1	10	0	0	0	-	11	0	5	1	0	0	-	6	1	0	0	0	0	-	1	1	0	4	0	0	-	5	23
% Buses	0.3	3.0	0.0	0.0	-	-	1.5	0.0	1.2	0.7	0.0	-	-	1.0	0.6	0.0	0.0	0.0	-	-	0.4	0.9	0.0	2.1	0.0	-	-	1.0	1.1
Trucks	2	1	0	0	0	-	3	0	3	0	0	0	-	3	0	0	0	0	0	-	0	0	0	1	5	0	-	6	12
% Trucks	0.5	0.3	0.0	0.0	-	-	0.4	0.0	0.7	0.0	0.0	-	-	0.5	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.5	2.4	-	-	1.2	0.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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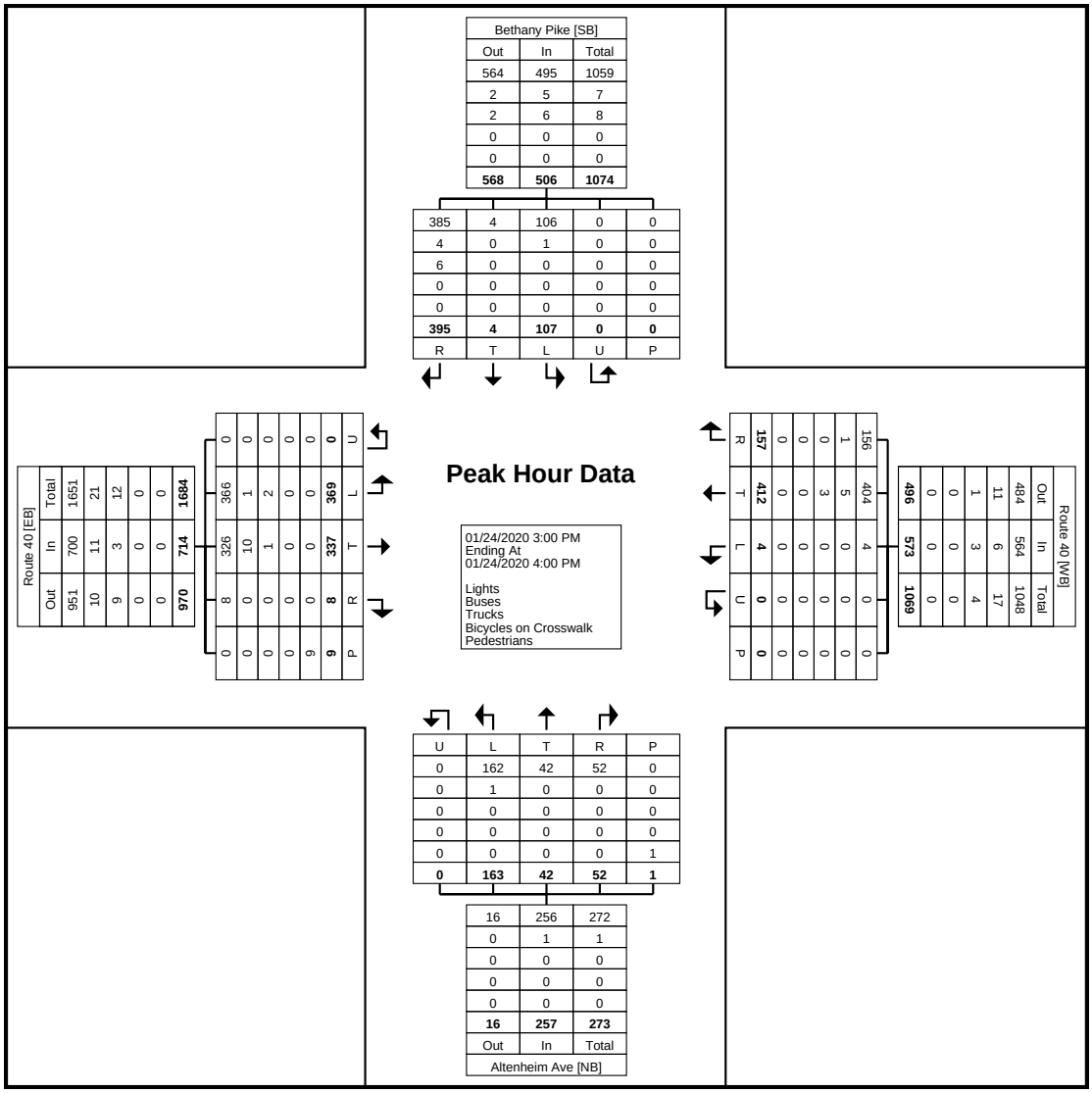
Wheeling, WV
Route 40 & Bethany Pike
Friday, January 24, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (3:00 PM)

TRI-STATE TRAFFIC DATA
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Wheeling, WV
Route 40 & Bethany Pike
Saturday, January 25, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Route 40 Eastbound							Route 40 Westbound							Altenheim Ave Northbound							Bethany Pike Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:00 AM	61	43	1	1	0	0	106	1	61	12	2	0	0	76	19	2	0	3	0	0	24	14	0	22	45	0	1	81	287
11:15 AM	57	55	0	0	0	0	112	2	68	13	4	0	0	87	20	1	5	1	0	3	27	17	1	27	55	0	0	100	326
11:30 AM	68	88	0	0	0	0	156	1	71	27	0	0	0	99	16	3	8	0	0	1	27	32	2	35	50	0	0	119	401
11:45 AM	59	57	0	0	0	0	116	0	91	21	2	0	0	114	16	9	6	1	0	3	32	34	2	18	49	0	0	103	365
Hourly Total	245	243	1	1	0	0	490	4	291	73	8	0	0	376	71	15	19	5	0	7	110	97	5	102	199	0	1	403	1379
12:00 PM	78	78	0	0	0	0	156	3	94	21	2	0	0	120	5	5	4	3	0	0	17	23	0	16	47	0	0	86	379
12:15 PM	73	62	3	1	0	0	139	4	77	22	5	0	0	108	8	3	6	3	0	2	20	18	0	18	56	0	0	92	359
12:30 PM	60	63	0	0	0	0	123	2	62	12	5	0	0	81	8	6	4	4	0	0	22	18	1	25	75	0	0	119	345
12:45 PM	54	55	0	0	0	0	109	1	75	16	4	0	0	96	6	2	4	2	0	0	14	22	0	30	37	0	0	89	308
Hourly Total	265	258	3	1	0	0	527	10	308	71	16	0	0	405	27	16	18	12	0	2	73	81	1	89	215	0	0	386	1391
1:00 PM	62	56	1	0	0	0	119	0	56	26	4	0	0	86	6	7	9	2	0	0	24	29	0	29	53	0	0	111	340
1:15 PM	51	67	1	0	0	0	119	2	63	15	5	0	0	85	15	7	1	0	0	2	23	26	1	24	31	0	0	82	309
1:30 PM	60	59	1	0	0	2	120	1	64	21	1	0	0	87	7	2	4	2	0	0	15	17	0	20	39	0	0	76	298
1:45 PM	75	63	0	0	0	0	138	1	69	20	0	0	0	90	9	1	8	0	0	1	18	11	1	18	38	0	0	68	314
Hourly Total	248	245	3	0	0	2	496	4	252	82	10	0	0	348	37	17	22	4	0	3	80	83	2	91	161	0	0	337	1261
2:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	758	746	7	2	0	2	1513	18	852	226	34	0	0	1130	135	48	59	21	0	12	263	261	8	282	575	0	1	1126	4032
Approach %	50.1	49.3	0.5	0.1	0.0	-	-	1.6	75.4	20.0	3.0	0.0	-	-	51.3	18.3	22.4	8.0	0.0	-	-	23.2	0.7	25.0	51.1	0.0	-	-	-
Total %	18.8	18.5	0.2	0.0	0.0	-	37.5	0.4	21.1	5.6	0.8	0.0	-	28.0	3.3	1.2	1.5	0.5	0.0	-	6.5	6.5	0.2	7.0	14.3	0.0	-	27.9	-
Lights	754	740	7	2	0	-	1503	18	842	222	34	0	-	1116	135	48	59	21	0	-	263	260	8	277	570	0	-	1115	3997
% Lights	99.5	99.2	100.0	100.0	-	-	99.3	100.0	98.8	98.2	100.0	-	-	98.8	100.0	100.0	100.0	100.0	-	-	100.0	99.6	100.0	98.2	99.1	-	-	99.0	99.1
Buses	3	3	0	0	0	-	6	0	6	0	0	0	-	6	0	0	0	0	0	-	0	0	0	0	0	0	-	0	12
% Buses	0.4	0.4	0.0	0.0	-	-	0.4	0.0	0.7	0.0	0.0	-	-	0.5	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	1	3	0	0	0	-	4	0	4	4	0	0	-	8	0	0	0	0	0	-	0	1	0	5	5	0	-	11	23
% Trucks	0.1	0.4	0.0	0.0	-	-	0.3	0.0	0.5	1.8	0.0	-	-	0.7	0.0	0.0	0.0	0.0	-	-	0.0	0.4	0.0	1.8	0.9	-	-	1.0	0.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	12	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

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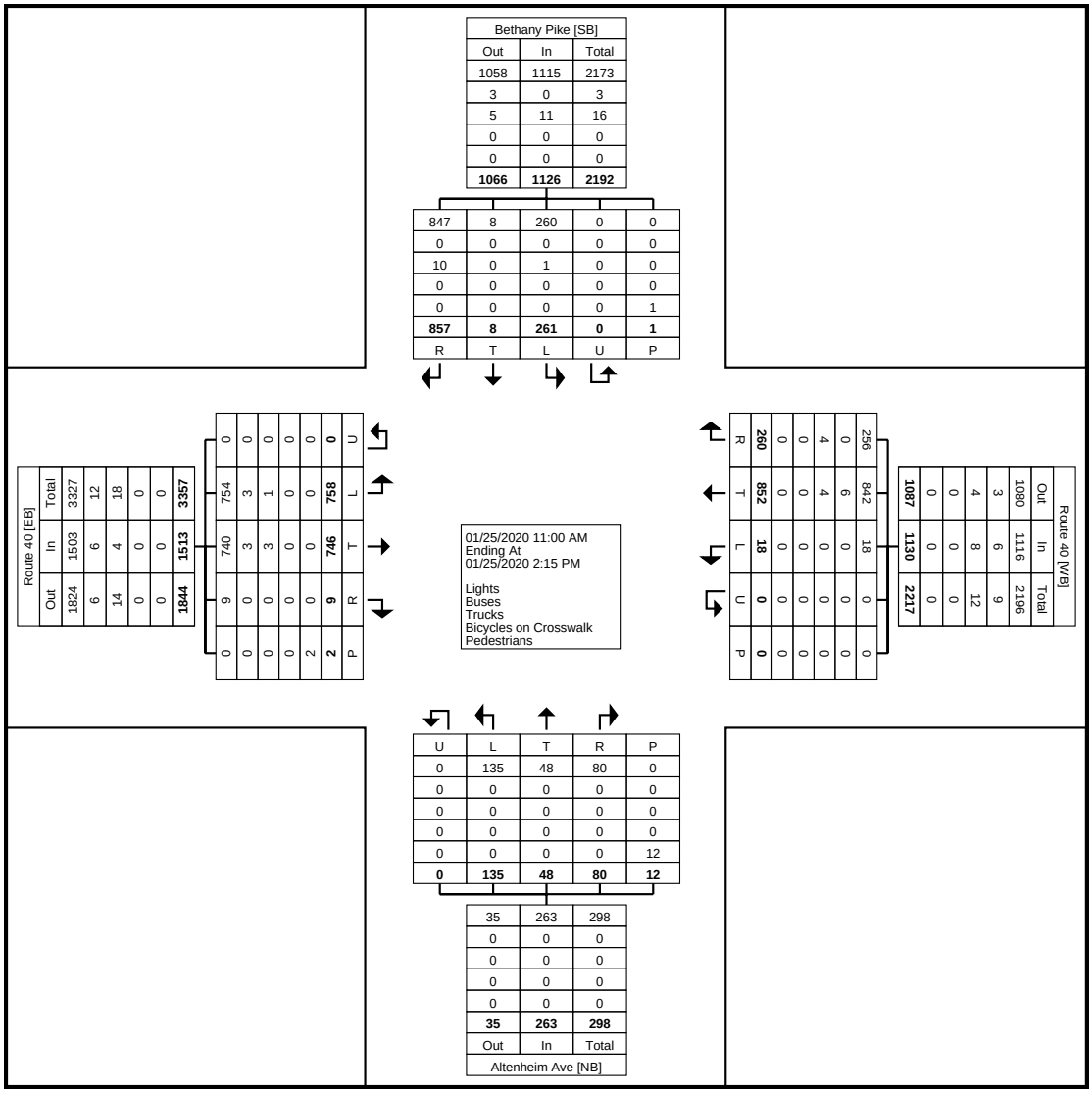
Wheeling, WV
Route 40 & Bethany Pike
Saturday, January 25, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Data Plot

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Wheeling, WV
Route 40 & Bethany Pike
Saturday, January 25, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Altenheim Ave Northbound							Bethany Pike Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:30 AM	68	88	0	0	0	0	156	1	71	27	0	0	0	99	16	3	8	0	0	1	27	32	2	35	50	0	0	119	401
11:45 AM	59	57	0	0	0	0	116	0	91	21	2	0	0	114	16	9	6	1	0	3	32	34	2	18	49	0	0	103	365
12:00 PM	78	78	0	0	0	0	156	3	94	21	2	0	0	120	5	5	4	3	0	0	17	23	0	16	47	0	0	86	379
12:15 PM	73	62	3	1	0	0	139	4	77	22	5	0	0	108	8	3	6	3	0	2	20	18	0	18	56	0	0	92	359
Total	278	285	3	1	0	0	567	8	333	91	9	0	0	441	45	20	24	7	0	6	96	107	4	87	202	0	0	400	1504
Approach %	49.0	50.3	0.5	0.2	0.0	-	-	1.8	75.5	20.6	2.0	0.0	-	-	46.9	20.8	25.0	7.3	0.0	-	-	26.8	1.0	21.8	50.5	0.0	-	-	-
Total %	18.5	18.9	0.2	0.1	0.0	-	37.7	0.5	22.1	6.1	0.6	0.0	-	29.3	3.0	1.3	1.6	0.5	0.0	-	6.4	7.1	0.3	5.8	13.4	0.0	-	26.6	-
PHF	0.891	0.810	0.250	0.250	0.000	-	0.909	0.500	0.886	0.843	0.450	0.000	-	0.919	0.703	0.556	0.750	0.583	0.000	-	0.750	0.787	0.500	0.621	0.902	0.000	-	0.840	0.938
Lights	277	282	3	1	0	-	563	8	329	89	9	0	-	435	45	20	24	7	0	-	96	107	4	86	199	0	-	396	1490
% Lights	99.6	98.9	100.0	100.0	-	-	99.3	100.0	98.8	97.8	100.0	-	-	98.6	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	98.9	98.5	-	-	99.0	99.1
Buses	1	1	0	0	0	-	2	0	2	0	0	0	-	2	0	0	0	0	0	-	0	0	0	0	0	0	-	0	4
% Buses	0.4	0.4	0.0	0.0	-	-	0.4	0.0	0.6	0.0	0.0	-	-	0.5	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	0	2	0	0	0	-	2	0	2	2	0	0	-	4	0	0	0	0	0	-	0	0	0	1	3	0	-	4	10
% Trucks	0.0	0.7	0.0	0.0	-	-	0.4	0.0	0.6	2.2	0.0	-	-	0.9	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	1.1	1.5	-	-	1.0	0.7
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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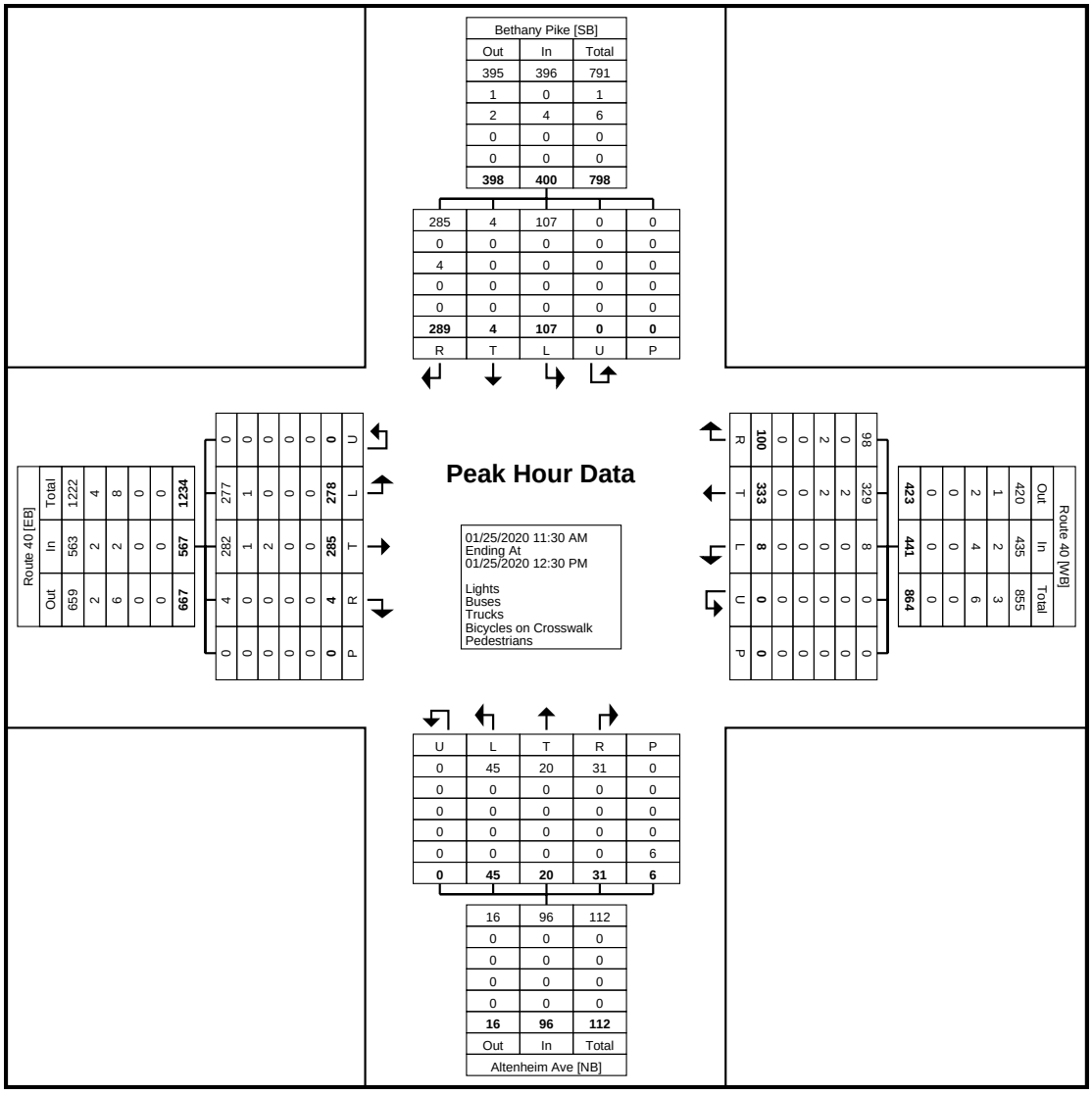
Wheeling, WV
Route 40 & Bethany Pike
Saturday, January 25, 2020
Location: 40.077337, -80.693137

Count Name: Route 40/Bethany Pike SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:30 AM)

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Wheeling, WV
Bethany Pike & Potomac Rd
Friday, January 24, 2020
Location: 40.089111, -80.688924

Count Name: Bethany Pike/Potomac Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Bethany Pike Eastbound						Bethany Pike Westbound						Church Northbound						Potomac Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	27	18	0	0	0	45	0	46	2	0	0	48	0	0	0	0	0	0	7	0	35	0	0	42	135
7:15 AM	20	47	1	0	0	68	0	67	1	0	0	68	0	0	0	0	0	0	3	0	48	0	0	51	187
7:30 AM	30	45	0	0	0	75	0	68	1	0	0	69	0	0	0	0	0	0	0	0	65	0	0	65	209
7:45 AM	38	46	0	0	0	84	0	72	1	0	0	73	0	0	0	0	0	0	3	0	77	0	0	80	237
Hourly Total	115	156	1	0	0	272	0	253	5	0	0	258	0	0	0	0	0	0	13	0	225	0	0	238	768
8:00 AM	28	57	0	0	0	85	0	68	1	0	0	69	0	0	0	0	0	0	2	0	46	0	1	48	202
8:15 AM	26	67	2	0	0	95	0	69	0	0	0	69	0	0	0	0	0	0	1	0	42	0	0	43	207
8:30 AM	25	46	0	0	0	71	0	56	1	0	0	57	0	0	0	0	0	0	0	0	36	0	0	36	164
8:45 AM	20	51	2	0	0	73	0	46	0	0	0	46	0	0	1	0	0	1	1	0	49	0	0	50	170
Hourly Total	99	221	4	0	0	324	0	239	2	0	0	241	0	0	1	0	0	1	4	0	173	0	1	177	743
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	45	59	0	0	0	104	0	59	0	0	0	59	0	0	0	0	0	0	2	0	36	0	0	38	201
3:15 PM	39	66	0	0	0	105	0	84	2	0	0	86	0	0	0	0	0	0	2	0	36	0	0	38	229
3:30 PM	45	66	0	0	0	111	0	72	0	2	0	74	0	0	0	0	0	0	0	0	41	0	0	41	226
3:45 PM	55	83	0	0	0	138	0	67	0	0	0	67	0	0	0	0	0	0	2	0	31	0	0	33	238
Hourly Total	184	274	0	0	0	458	0	282	2	2	0	286	0	0	0	0	0	0	6	0	144	0	0	150	894
4:00 PM	47	77	0	0	0	124	0	55	2	0	0	57	0	0	0	0	0	0	0	0	29	0	0	29	210
4:15 PM	52	66	0	0	0	118	0	61	3	0	0	64	0	0	0	0	0	0	0	0	41	0	0	41	223
4:30 PM	52	69	0	0	0	121	0	64	1	0	0	65	1	0	0	0	0	1	2	0	35	0	0	37	224
4:45 PM	45	63	0	0	0	108	0	63	3	0	0	66	0	0	0	0	0	0	2	0	24	0	0	26	200
Hourly Total	196	275	0	0	0	471	0	243	9	0	0	252	1	0	0	0	0	1	4	0	129	0	0	133	857
5:00 PM	52	81	0	0	0	133	0	76	3	0	0	79	0	0	0	0	0	0	0	0	55	0	0	55	267
5:15 PM	48	82	0	0	0	130	0	76	2	0	0	78	0	0	0	0	0	0	1	0	40	0	0	41	249
5:30 PM	34	57	0	0	0	91	0	52	4	0	0	56	0	0	0	0	0	0	2	0	31	0	0	33	180
5:45 PM	33	62	0	0	0	95	0	42	2	0	0	44	0	0	0	0	0	0	2	0	35	0	0	37	176
Hourly Total	167	282	0	0	0	449	0	246	11	0	0	257	0	0	0	0	0	0	5	0	161	0	0	166	872
6:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	762	1208	5	0	0	1975	0	1263	29	2	0	1294	1	0	1	0	0	2	32	0	832	0	1	864	4135
Approach %	38.6	61.2	0.3	0.0	-	-	0.0	97.6	2.2	0.2	-	-	50.0	0.0	50.0	0.0	-	-	3.7	0.0	96.3	0.0	-	-	-
Total %	18.4	29.2	0.1	0.0	-	47.8	0.0	30.5	0.7	0.0	-	31.3	0.0	0.0	0.0	0.0	-	0.0	0.8	0.0	20.1	0.0	-	20.9	-
Lights	744	1193	4	0	-	1941	0	1234	27	2	-	1263	1	0	0	0	-	1	31	0	813	0	-	844	4049
% Lights	97.6	98.8	80.0	-	-	98.3	-	97.7	93.1	100.0	-	97.6	100.0	-	0.0	-	-	50.0	96.9	-	97.7	-	-	97.7	97.9
Buses	2	4	0	0	-	6	0	13	2	0	-	15	0	0	0	0	-	0	0	0	7	0	-	7	28
% Buses	0.3	0.3	0.0	-	-	0.3	-	1.0	6.9	0.0	-	1.2	0.0	-	0.0	-	-	0.0	0.0	-	0.8	-	-	0.8	0.7
Trucks	16	11	1	0	-	28	0	16	0	0	-	16	0	0	1	0	-	1	1	0	12	0	-	13	58
% Trucks	2.1	0.9	20.0	-	-	1.4	-	1.3	0.0	0.0	-	1.2	0.0	-	100.0	-	-	50.0	3.1	-	1.4	-	-	1.5	1.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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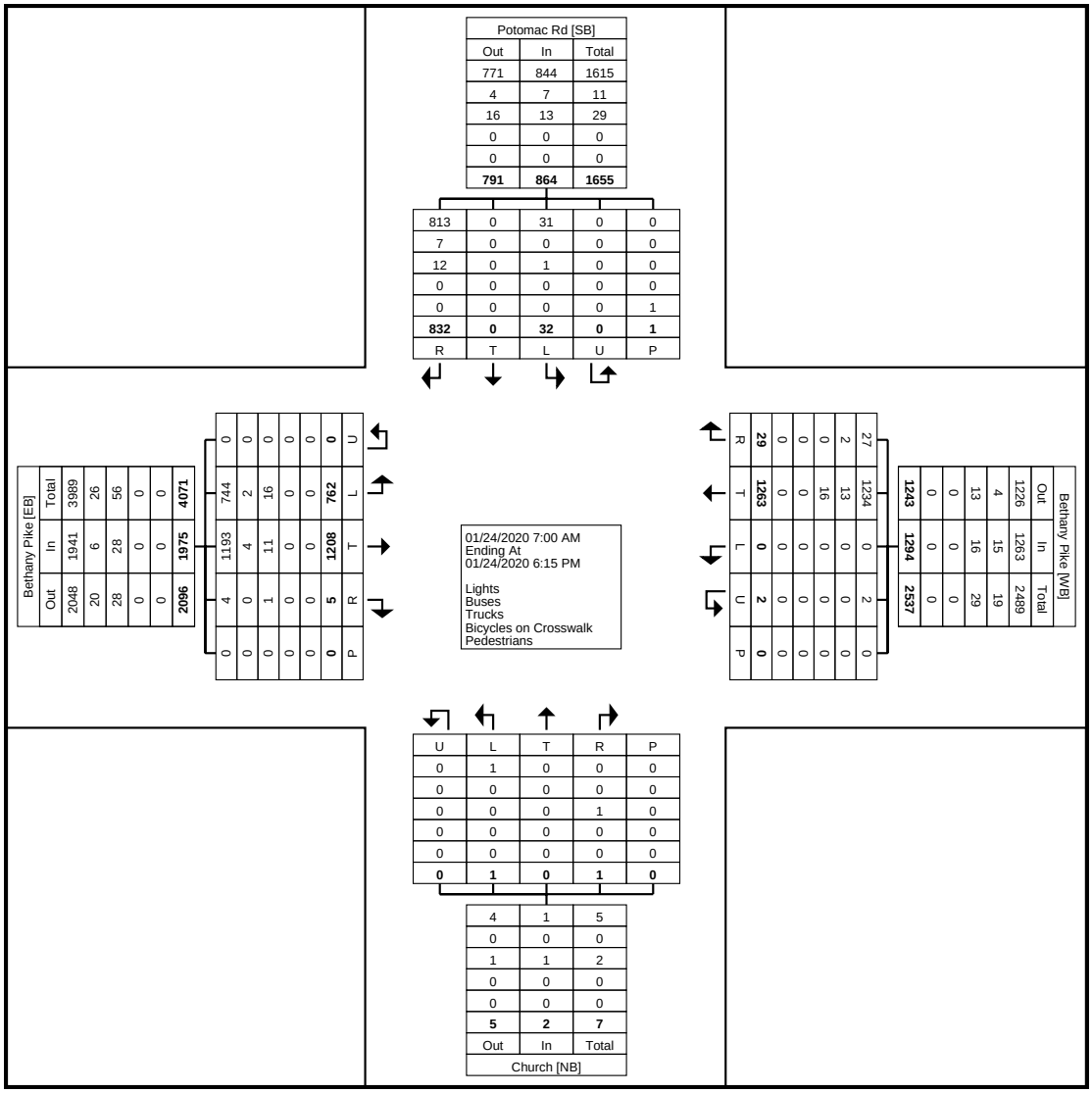
Wheeling, WV
Bethany Pike & Potomac Rd
Friday, January 24, 2020
Location: 40.089111, -80.688924

Count Name: Bethany Pike/Potomac Rd
Site Code:
Start Date: 01/24/2020
Page No: 2



Turning Movement Data Plot

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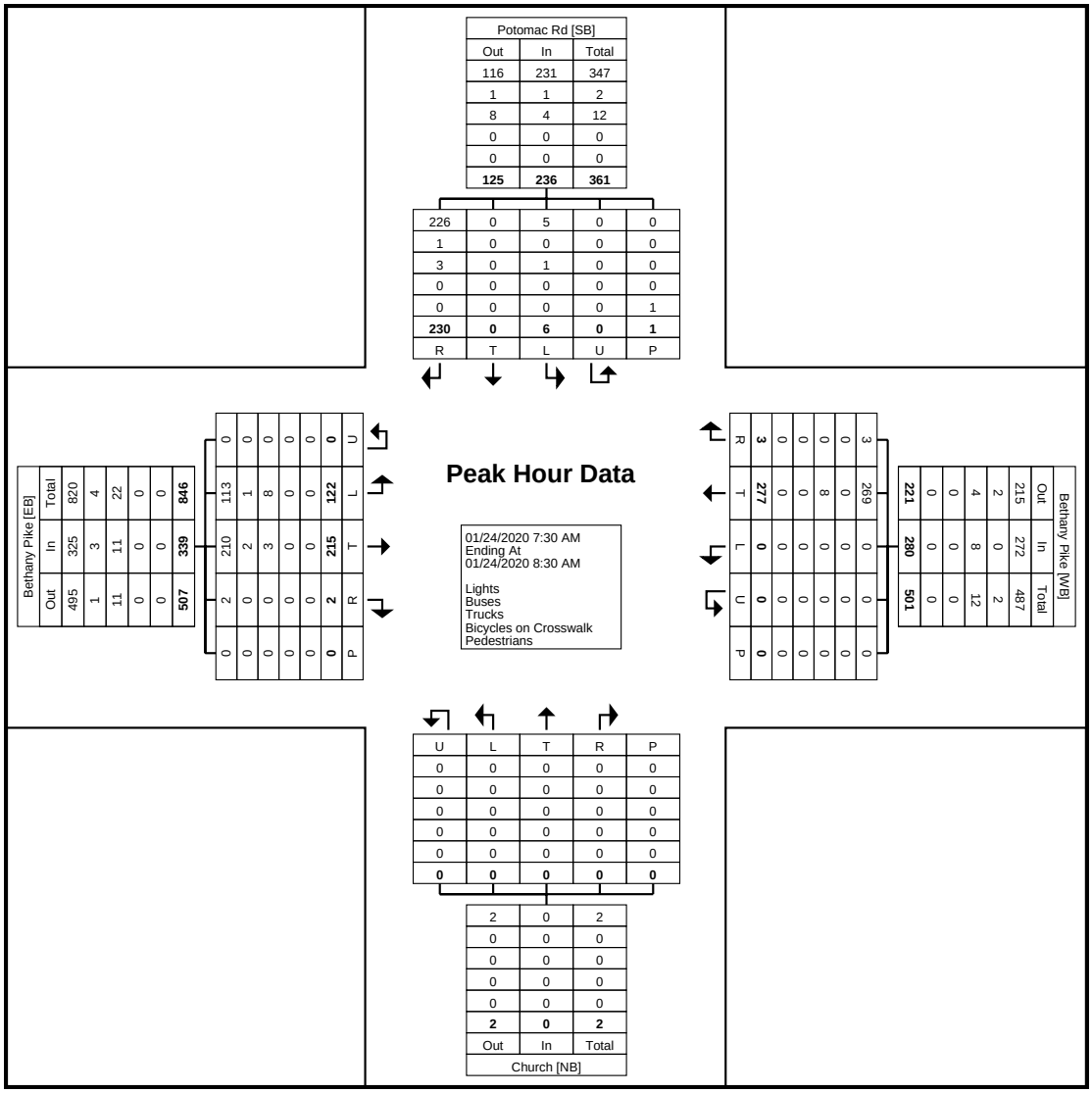
Wheeling, WV
Bethany Pike & Potomac Rd
Friday, January 24, 2020
Location: 40.089111, -80.688924

Count Name: Bethany Pike/Potomac Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Bethany Pike Eastbound						Bethany Pike Westbound						Church Northbound						Potomac Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	30	45	0	0	0	75	0	68	1	0	0	69	0	0	0	0	0	0	0	0	65	0	0	65	209
7:45 AM	38	46	0	0	0	84	0	72	1	0	0	73	0	0	0	0	0	0	3	0	77	0	0	80	237
8:00 AM	28	57	0	0	0	85	0	68	1	0	0	69	0	0	0	0	0	0	2	0	46	0	1	48	202
8:15 AM	26	67	2	0	0	95	0	69	0	0	0	69	0	0	0	0	0	0	1	0	42	0	0	43	207
Total	122	215	2	0	0	339	0	277	3	0	0	280	0	0	0	0	0	0	6	0	230	0	1	236	855
Approach %	36.0	63.4	0.6	0.0	-	-	0.0	98.9	1.1	0.0	-	-	0.0	0.0	0.0	0.0	-	-	2.5	0.0	97.5	0.0	-	-	-
Total %	14.3	25.1	0.2	0.0	-	39.6	0.0	32.4	0.4	0.0	-	32.7	0.0	0.0	0.0	0.0	-	0.0	0.7	0.0	26.9	0.0	-	27.6	-
PHF	0.803	0.802	0.250	0.000	-	0.892	0.000	0.962	0.750	0.000	-	0.959	0.000	0.000	0.000	0.000	-	0.000	0.500	0.000	0.747	0.000	-	0.738	0.902
Lights	113	210	2	0	-	325	0	269	3	0	-	272	0	0	0	0	-	0	5	0	226	0	-	231	828
% Lights	92.6	97.7	100.0	-	-	95.9	-	97.1	100.0	-	-	97.1	-	-	-	-	-	-	83.3	-	98.3	-	-	97.9	96.8
Buses	1	2	0	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	4
% Buses	0.8	0.9	0.0	-	-	0.9	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	-	0.4	-	-	0.4	0.5
Trucks	8	3	0	0	-	11	0	8	0	0	-	8	0	0	0	0	-	0	1	0	3	0	-	4	23
% Trucks	6.6	1.4	0.0	-	-	3.2	-	2.9	0.0	-	-	2.9	-	-	-	-	-	-	16.7	-	1.3	-	-	1.7	2.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (7:30 AM)

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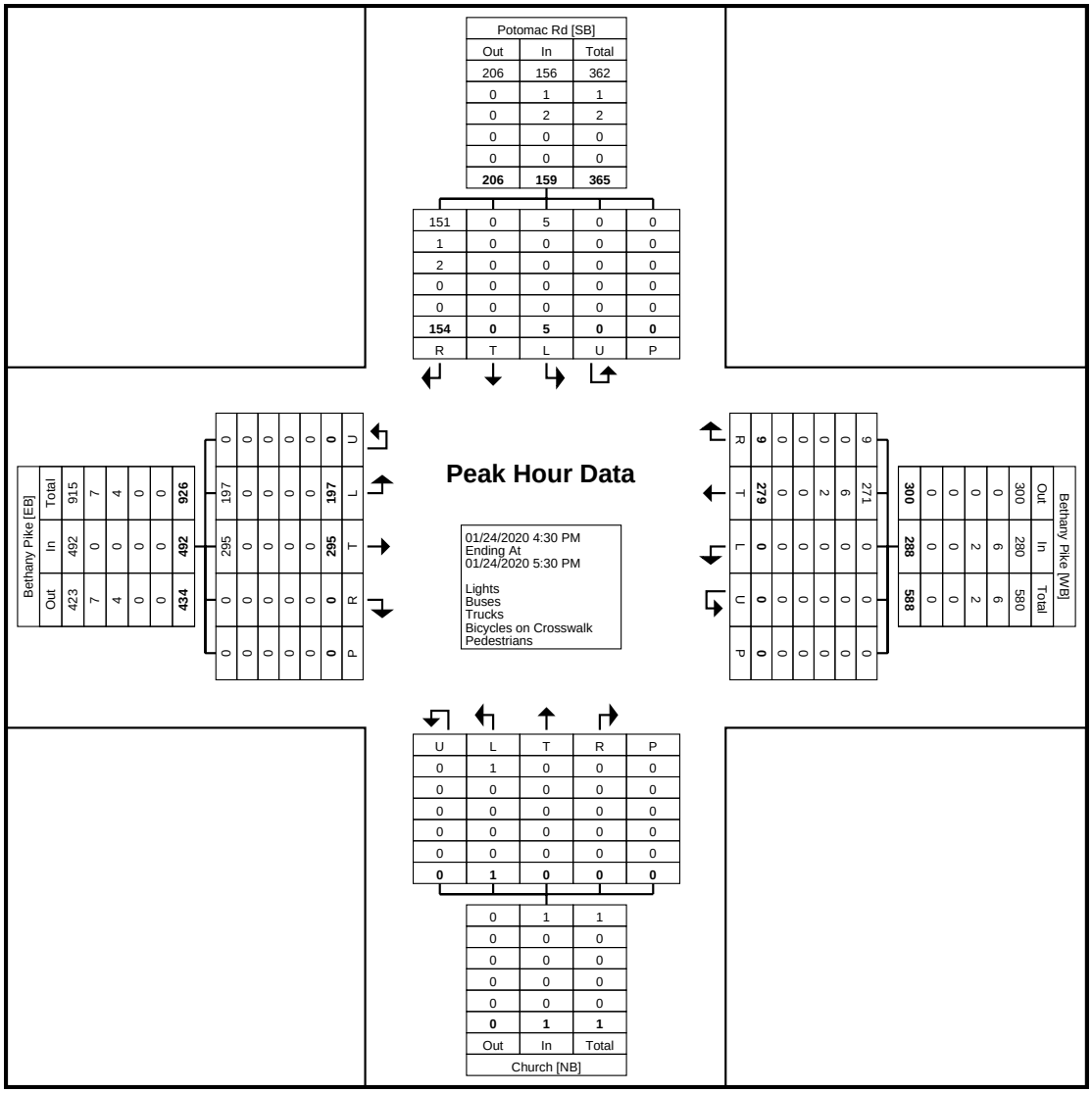
Wheeling, WV
Bethany Pike & Potomac Rd
Friday, January 24, 2020
Location: 40.089111, -80.688924

Count Name: Bethany Pike/Potomac Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Bethany Pike Eastbound						Bethany Pike Westbound						Church Northbound						Potomac Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:30 PM	52	69	0	0	0	121	0	64	1	0	0	65	1	0	0	0	0	1	2	0	35	0	0	37	224
4:45 PM	45	63	0	0	0	108	0	63	3	0	0	66	0	0	0	0	0	0	2	0	24	0	0	26	200
5:00 PM	52	81	0	0	0	133	0	76	3	0	0	79	0	0	0	0	0	0	0	0	55	0	0	55	267
5:15 PM	48	82	0	0	0	130	0	76	2	0	0	78	0	0	0	0	0	0	1	0	40	0	0	41	249
Total	197	295	0	0	0	492	0	279	9	0	0	288	1	0	0	0	0	1	5	0	154	0	0	159	940
Approach %	40.0	60.0	0.0	0.0	-	-	0.0	96.9	3.1	0.0	-	-	100.0	0.0	0.0	0.0	-	-	3.1	0.0	96.9	0.0	-	-	-
Total %	21.0	31.4	0.0	0.0	-	52.3	0.0	29.7	1.0	0.0	-	30.6	0.1	0.0	0.0	0.0	-	0.1	0.5	0.0	16.4	0.0	-	16.9	-
PHF	0.947	0.899	0.000	0.000	-	0.925	0.000	0.918	0.750	0.000	-	0.911	0.250	0.000	0.000	0.000	-	0.250	0.625	0.000	0.700	0.000	-	0.723	0.880
Lights	197	295	0	0	-	492	0	271	9	0	-	280	1	0	0	0	-	1	5	0	151	0	-	156	929
% Lights	100.0	100.0	-	-	-	100.0	-	97.1	100.0	-	-	97.2	100.0	-	-	-	-	100.0	100.0	-	98.1	-	-	98.1	98.8
Buses	0	0	0	0	-	0	0	6	0	0	-	6	0	0	0	0	-	0	0	0	1	0	-	1	7
% Buses	0.0	0.0	-	-	-	0.0	-	2.2	0.0	-	-	2.1	0.0	-	-	-	-	0.0	0.0	-	0.6	-	-	0.6	0.7
Trucks	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	0	2	0	-	2	4
% Trucks	0.0	0.0	-	-	-	0.0	-	0.7	0.0	-	-	0.7	0.0	-	-	-	-	0.0	0.0	-	1.3	-	-	1.3	0.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:30 PM)

Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

Leg	Potomac Rd						Bethany Pike						Church						Bethany Pike						
Direction	Southbound						Westbound						Northwestbound						Northbound						
Time	T	BL	L	U	**App**	Ped*	R	L	HL	U	**App**	Ped*	HR	BR	HL	U	**App**	Ped*	HR	R	T	U	**App**	Ped*	**Int**
2020-01-25 11:00AM	28	0	1	0	**29**	0	1	45	0	0	**46**	0	0	0	0	0	**0**	0	0	39	13	0	**52**	0	**127**
11:15AM	38	0	2	0	**40**	0	1	57	0	0	**58**	0	0	0	0	0	**0**	0	1	36	31	0	**68**	0	**166**
11:30AM	39	0	0	0	**39**	0	1	65	0	0	**66**	0	0	0	0	0	**0**	0	0	53	26	0	**79**	0	**184**
11:45AM	35	0	2	0	**37**	0	2	49	0	0	**51**	0	0	0	0	0	**0**	0	0	69	24	0	**93**	0	**181**
Hourly Total	140	0	5	0	**145**	0	5	216	0	0	**221**	0	0	0	0	0	**0**	0	1	197	94	0	**292**	0	**658**
12:00PM	20	0	2	0	**22**	0	2	40	0	0	**42**	0	0	0	0	0	**0**	0	0	57	28	0	**85**	0	**149**
12:15PM	23	0	2	0	**25**	0	2	43	0	0	**45**	0	0	0	1	0	**1**	0	0	56	23	0	**79**	0	**150**
12:30PM	26	0	2	0	**28**	0	0	82	0	0	**82**	0	0	0	0	0	**0**	0	0	36	28	0	**64**	0	**174**
12:45PM	20	0	0	0	**20**	0	2	55	0	0	**57**	0	0	0	0	0	**0**	0	0	34	21	0	**55**	0	**132**
Hourly Total	89	0	6	0	**95**	0	6	220	0	0	**226**	0	0	0	1	0	**1**	0	0	183	100	0	**283**	0	**605**
1:00PM	22	0	1	0	**23**	0	3	59	0	0	**62**	0	0	0	0	0	**0**	0	0	47	23	0	**70**	0	**155**
1:15PM	23	0	0	0	**23**	0	1	45	0	0	**46**	0	0	0	0	0	**0**	0	0	44	21	0	**65**	0	**134**
1:30PM	16	0	0	0	**16**	0	1	48	0	0	**49**	0	0	0	0	0	**0**	0	0	50	27	0	**77**	0	**142**
1:45PM	34	0	1	0	**35**	1	0	36	0	0	**36**	0	0	0	0	0	**0**	0	0	43	30	0	**73**	0	**144**
Hourly Total	95	0	2	0	**97**	1	5	188	0	0	**193**	0	0	0	0	0	**0**	0	0	184	101	0	**285**	0	**575**
2:00PM	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	**0**
Total	324	0	13	0	**337**	1	16	624	0	0	**640**	0	0	0	1	0	**1**	0	1	564	295	0	**860**	0	**1838**
% Approach	96.1%	0%	3.9%	0%	**-**	-	2.5%	97.5%	0%	0%	**-**	-	0%	0%	100%	0%	**-**	-	0.1%	65.6%	34.3%	0%	**-**	-	-
% Total	17.6%	0%	0.7%	0%	**18.3%**	-	0.9%	33.9%	0%	0%	**34.8%**	-	0%	0%	0.1%	0%	**0.1%**	-	0.1%	30.7%	16.1%	0%	**46.8%**	-	-
Lights	323	0	13	0	**336**	-	16	615	0	0	**631**	-	0	0	1	0	**1**	-	1	563	293	0	**857**	-	1825
% Lights	99.7%	0%	100%	0%	**99.7%**	-	100%	98.6%	0%	0%	**98.6%**	-	0%	0%	100%	0%	**100%**	-	100%	99.8%	99.3%	0%	**99.7%**	-	99.3%
Articulated Trucks and Single-Unit Trucks	1	0	0	0	**1**	-	0	9	0	0	**9**	-	0	0	0	0	**0**	-	0	1	2	0	**3**	-	13
% Articulated Trucks and Single-Unit Trucks	0.3%	0%	0%	0%	**0.3%**	-	0%	1.4%	0%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0.2%	0.7%	0%	**0.3%**	-	0.7%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
Full Length (11 AM-2 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

Provided by: Tri-State Traffic Data, Inc.
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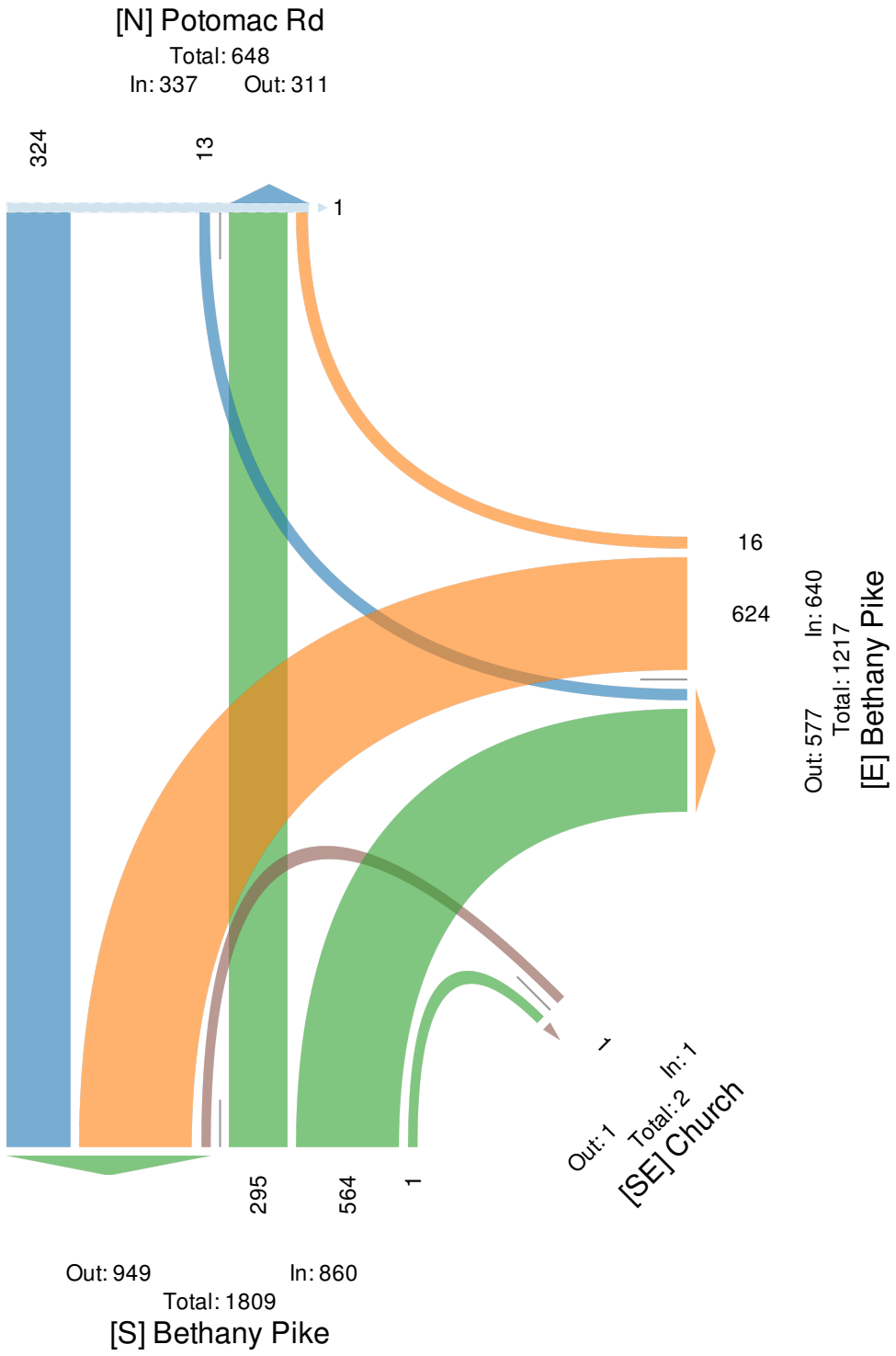


Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
Midday Peak (WKND) (11:15 AM - 12:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

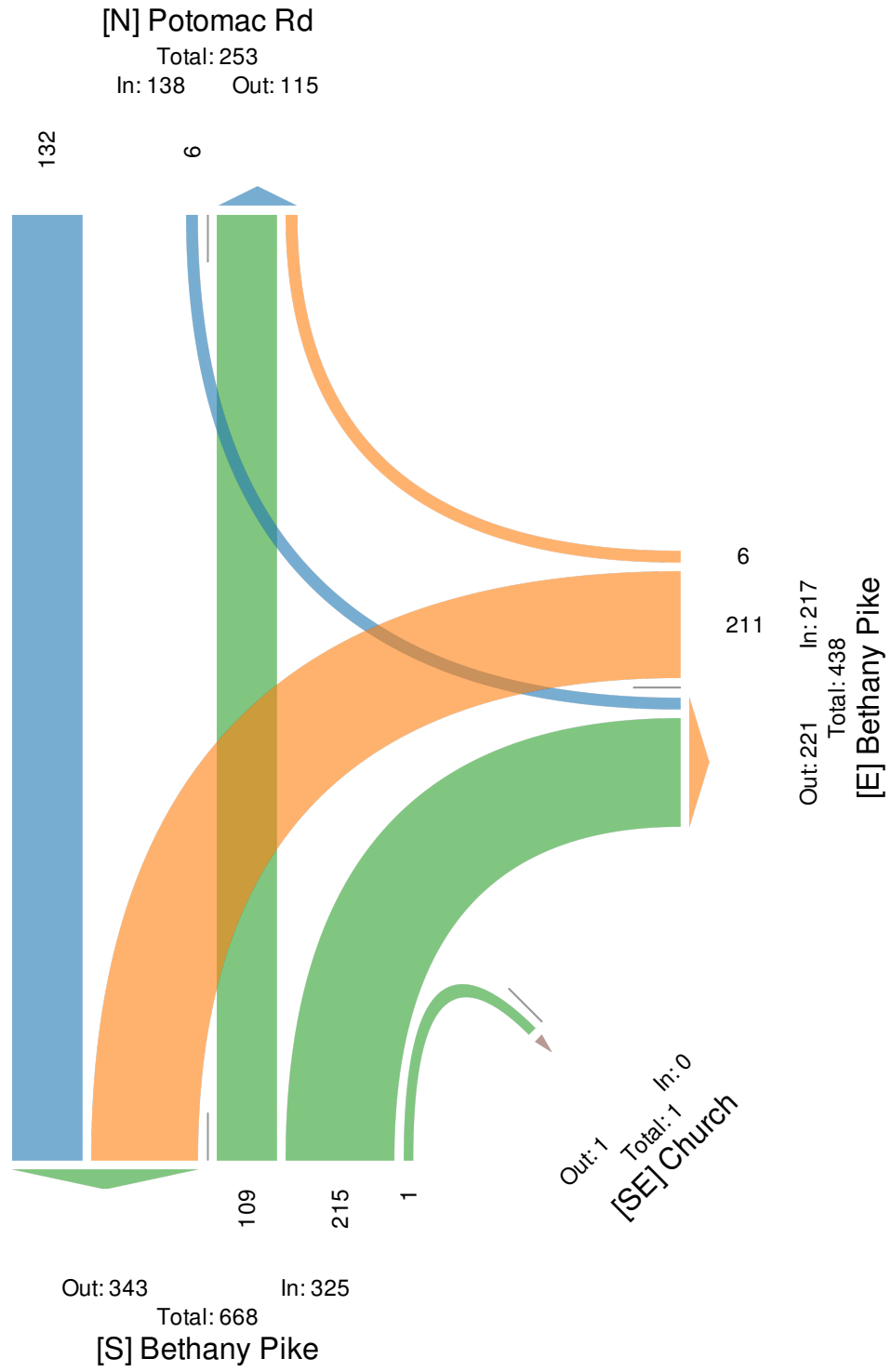
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

Leg	Potomac Rd						Bethany Pike						Church						Bethany Pike						
Direction	Southbound						Westbound						Northwestbound						Northbound						
Time	T	BL	L	U	App	Ped*	R	L	HL	U	App	Ped*	HR	BR	HL	U	App	Ped*	HR	R	T	U	App	Ped*	Int
2020-01-25 11:15AM	38	0	2	0	**40**	0	1	57	0	0	**58**	0	0	0	0	0	**0**	0	1	36	31	0	**68**	0	**166**
11:30AM	39	0	0	0	**39**	0	1	65	0	0	**66**	0	0	0	0	0	**0**	0	0	53	26	0	**79**	0	**184**
11:45AM	35	0	2	0	**37**	0	2	49	0	0	**51**	0	0	0	0	0	**0**	0	0	69	24	0	**93**	0	**181**
12:00PM	20	0	2	0	**22**	0	2	40	0	0	**42**	0	0	0	0	0	**0**	0	0	57	28	0	**85**	0	**149**
Total	132	0	6	0	**138**	0	6	211	0	0	**217**	0	0	0	0	0	**0**	0	1	215	109	0	**325**	0	**680**
% Approach	95.7%	0%	4.3%	0%	**-**	-	2.8%	97.2%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0.3%	66.2%	33.5%	0%	**-**	-	-
% Total	19.4%	0%	0.9%	0%	**20.3%**	-	0.9%	31.0%	0%	0%	**31.9%**	-	0%	0%	0%	0%	**0%**	-	0.1%	31.6%	16.0%	0%	**47.8%**	-	-
PHF	0.846	-	0.750	-	**0.863**	-	0.750	0.812	-	-	**0.822**	-	-	-	-	-	**-**	-	0.250	0.779	0.879	-	**0.874**	-	0.924
Lights	132	0	6	0	**138**	-	6	208	0	0	**214**	-	0	0	0	0	**0**	-	1	214	109	0	**324**	-	676
% Lights	100%	0%	100%	0%	**100%**	-	100%	98.6%	0%	0%	**98.6%**	-	0%	0%	0%	0%	**-**	-	100%	99.5%	100%	0%	**99.7%**	-	99.4%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	**0**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	4
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	1.4%	0%	0%	**1.4%**	-	0%	0%	0%	0%	**-**	-	0%	0.5%	0%	0%	**0.3%**	-	0.6%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
Midday Peak (WKND) (11:15 AM - 12:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

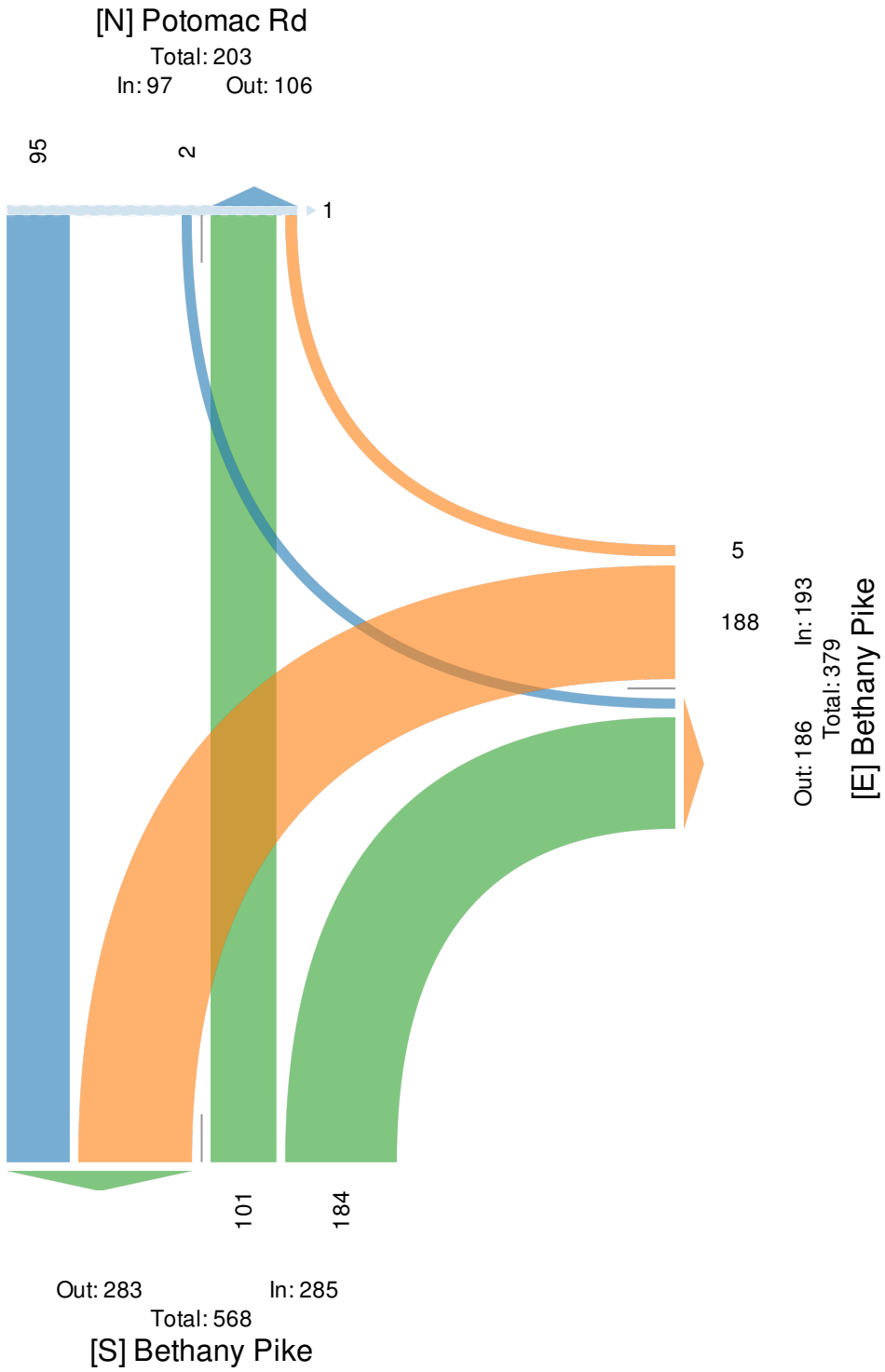
Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

Leg	Potomac Rd						Bethany Pike						Church						Bethany Pike						
Direction	Southbound						Westbound						Northwestbound						Northbound						
Time	T	BL	L	U	App	Ped*	R	L	HL	U	App	Ped*	HR	BR	HL	U	App	Ped*	HR	R	T	U	App	Ped*	Int
2020-01-25 1:00PM	22	0	1	0	**23**	0	3	59	0	0	**62**	0	0	0	0	0	**0**	0	0	47	23	0	**70**	0	**155**
1:15PM	23	0	0	0	**23**	0	1	45	0	0	**46**	0	0	0	0	0	**0**	0	0	44	21	0	**65**	0	**134**
1:30PM	16	0	0	0	**16**	0	1	48	0	0	**49**	0	0	0	0	0	**0**	0	0	50	27	0	**77**	0	**142**
1:45PM	34	0	1	0	**35**	1	0	36	0	0	**36**	0	0	0	0	0	**0**	0	0	43	30	0	**73**	0	**144**
Total	95	0	2	0	**97**	1	5	188	0	0	**193**	0	0	0	0	0	**0**	0	0	184	101	0	**285**	0	**575**
% Approach	97.9%	0%	2.1%	0%	**-**	-	2.6%	97.4%	0%	0%	**-**	-	0%	0%	0%	0%	**-**	-	0%	64.6%	35.4%	0%	**-**	-	-
% Total	16.5%	0%	0.3%	0%	**16.9%**	-	0.9%	32.7%	0%	0%	**33.6%**	-	0%	0%	0%	0%	**0%**	-	0%	32.0%	17.6%	0%	**49.6%**	-	-
PHF	0.699		0.500		**0.693**	-	0.417	0.797			**0.778**	-						-		0.920	0.842		**0.925**	-	0.927
Lights	95	0	2	0	**97**	-	5	187	0	0	**192**	-	0	0	0	0	**0**	-	0	184	100	0	**284**	-	573
% Lights	100%	0%	100%	0%	**100%**	-	100%	99.5%	0%	0%	**99.5%**	-	0%	0%	0%	0%	**-**	-	0%	100%	99.0%	0%	**99.6%**	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	2
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0.5%	0%	0%	**0.5%**	-	0%	0%	0%	0%	**-**	-	0%	0%	1.0%	0%	**0.4%**	-	0.3%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

Bethany Pike/Potomac Rd SAT - TMC
Sat Jan 25, 2020
PM Peak (WKND) (1 PM - 2 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 743716, Location: 40.089111, -80.688924

Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US



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Wheeling, WV
Route 40 & Park Rd
Friday, January 24, 2020
Location: 40.076494, -80.697291

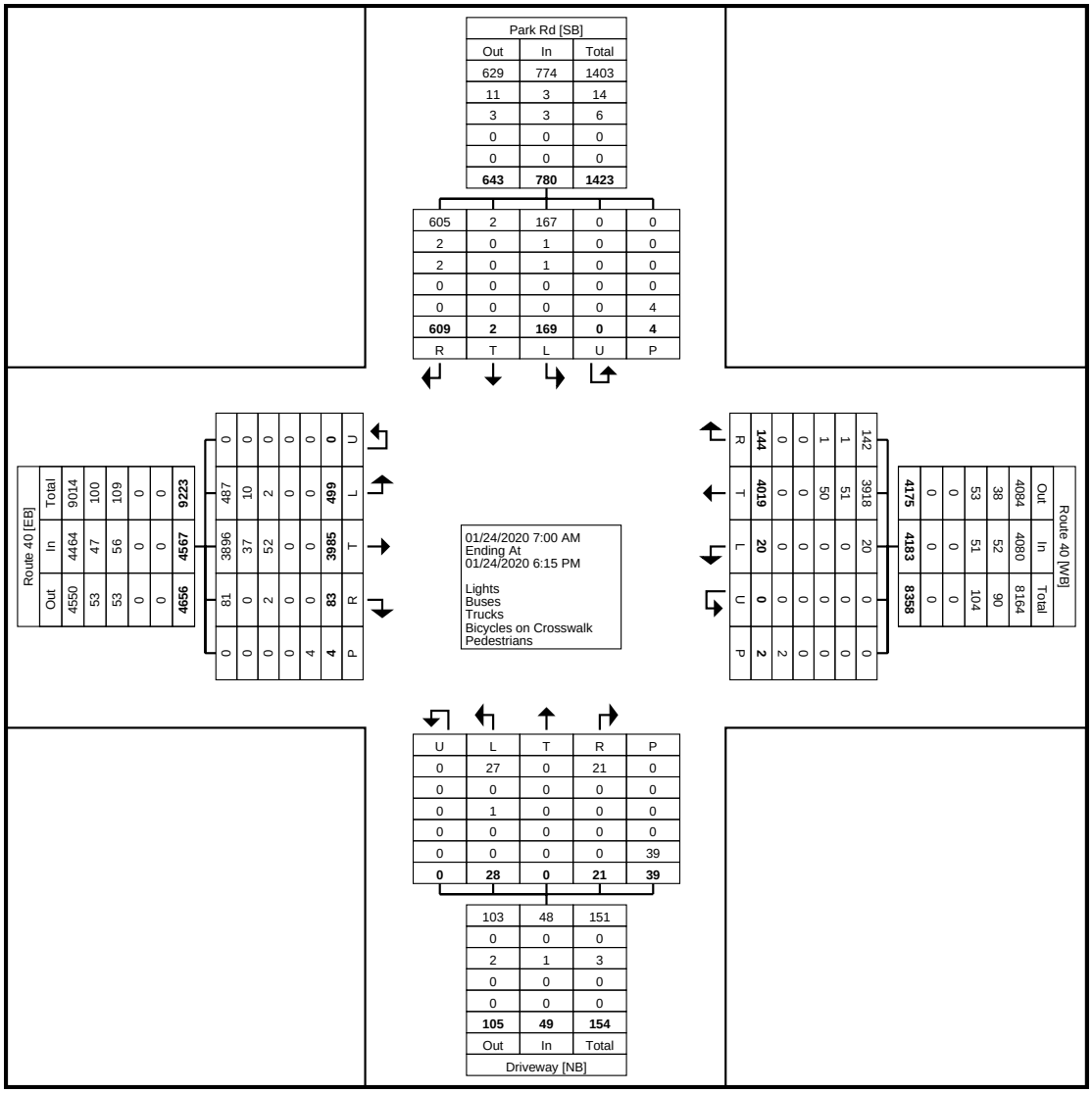
Count Name: Route 40/Park Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Route 40 Eastbound							Route 40 Westbound							Driveway Northbound							Park Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	11	110	1	0	0	0	122	0	122	4	0	0	0	126	1	0	0	0	0	0	1	2	0	3	7	0	0	12	261
7:15 AM	25	163	1	0	0	0	189	0	174	12	1	0	1	187	1	0	0	0	0	0	1	10	0	8	18	0	0	36	413
7:30 AM	17	199	2	0	0	0	218	0	217	7	0	0	0	224	1	0	0	0	0	0	1	9	0	7	23	0	0	39	482
7:45 AM	44	245	0	0	0	0	289	0	243	9	2	0	0	254	1	0	0	0	0	3	1	7	0	12	22	0	0	41	585
Hourly Total	97	717	4	0	0	0	818	0	756	32	3	0	1	791	4	0	0	0	0	3	4	28	0	30	70	0	0	128	1741
8:00 AM	57	159	2	0	0	0	218	0	194	16	0	0	0	210	1	0	0	1	0	1	2	7	0	26	24	0	0	57	487
8:15 AM	44	147	2	0	0	0	193	0	173	7	1	0	0	181	0	0	0	1	0	1	1	9	0	42	19	0	0	70	445
8:30 AM	19	133	0	0	0	1	152	0	169	2	0	0	0	171	0	0	0	1	0	0	1	12	0	22	16	0	0	50	374
8:45 AM	20	133	3	0	0	0	156	0	204	5	0	0	0	209	0	0	0	0	0	3	0	10	0	12	11	0	1	33	398
Hourly Total	140	572	7	0	0	1	719	0	740	30	1	0	0	771	1	0	0	3	0	5	4	38	0	102	70	0	1	210	1704
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	43	196	2	0	0	0	241	0	247	10	0	0	0	257	1	0	3	1	0	4	5	9	0	9	29	0	0	47	550
3:15 PM	31	221	0	1	0	0	253	2	262	12	0	0	0	276	2	0	0	0	0	3	2	23	0	33	20	0	0	76	607
3:30 PM	25	210	3	2	0	0	240	2	225	9	1	0	0	237	1	0	0	0	0	5	1	15	0	18	19	0	0	52	530
3:45 PM	21	219	4	0	0	1	244	1	237	10	0	0	0	248	1	0	0	2	0	4	3	8	0	6	20	0	1	34	529
Hourly Total	120	846	9	3	0	1	978	5	971	41	1	0	0	1018	5	0	3	3	0	16	11	55	0	66	88	0	1	209	2216
4:00 PM	22	209	5	0	0	1	236	0	181	5	0	0	0	186	1	0	1	0	0	3	2	7	0	11	23	0	1	41	465
4:15 PM	15	240	5	2	0	0	262	1	183	5	0	0	0	189	2	0	1	3	0	2	6	1	0	4	24	0	0	29	486
4:30 PM	17	237	5	2	0	0	261	0	195	2	0	0	0	197	3	0	0	0	0	1	3	8	0	2	23	0	1	33	494
4:45 PM	21	229	8	0	0	1	258	2	194	4	0	0	0	200	1	0	1	0	0	1	2	7	0	1	20	0	0	28	488
Hourly Total	75	915	23	4	0	2	1017	3	753	16	0	0	0	772	7	0	3	3	0	7	13	23	0	18	90	0	2	131	1933
5:00 PM	24	233	8	1	0	0	266	2	213	2	0	0	1	217	6	0	1	1	0	2	8	9	0	1	14	0	0	24	515
5:15 PM	17	268	5	1	0	0	291	5	217	10	0	0	0	232	0	0	0	0	0	0	0	10	1	8	20	0	0	39	562
5:30 PM	16	218	7	0	0	0	241	1	182	2	0	0	0	185	1	0	2	1	0	4	4	2	1	6	9	0	0	18	448
5:45 PM	10	216	10	0	0	0	236	4	187	6	0	0	0	197	4	0	1	0	0	2	5	4	0	7	10	0	0	21	459
Hourly Total	67	935	30	2	0	0	1034	12	799	20	0	0	1	831	11	0	4	2	0	8	17	25	2	22	53	0	0	102	1984
6:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	499	3985	74	9	0	4	4567	20	4019	139	5	0	2	4183	28	0	10	11	0	39	49	169	2	238	371	0	4	780	9579
Approach %	10.9	87.3	1.6	0.2	0.0	-	-	0.5	96.1	3.3	0.1	0.0	-	-	57.1	0.0	20.4	22.4	0.0	-	-	21.7	0.3	30.5	47.6	0.0	-	-	-
Total %	5.2	41.6	0.8	0.1	0.0	-	47.7	0.2	42.0	1.5	0.1	0.0	-	43.7	0.3	0.0	0.1	0.1	0.0	-	0.5	1.8	0.0	2.5	3.9	0.0	-	8.1	-
Lights	487	3896	72	9	0	-	4464	20	3918	137	5	0	-	4080	27	0	10	11	0	-	48	167	2	236	369	0	-	774	9366
% Lights	97.6	97.8	97.3	100.0	-	-	97.7	100.0	97.5	98.6	100.0	-	-	97.5	96.4	-	100.0	100.0	-	-	98.0	98.8	100.0	99.2	99.5	-	-	99.2	97.8
Buses	10	37	0	0	0	-	47	0	51	1	0	0	-	52	0	0	0	0	0	-	0	1	0	0	2	0	-	3	102
% Buses	2.0	0.9	0.0	0.0	-	-	1.0	0.0	1.3	0.7	0.0	-	-	1.2	0.0	-	0.0	0.0	-	-	0.0	0.6	0.0	0.0	0.5	-	-	0.4	1.1
Trucks	2	52	2	0	0	-	56	0	50	1	0	0	-	51	1	0	0	0	0	-	1	1	0	2	0	0	-	3	111
% Trucks	0.4	1.3	2.7	0.0	-	-	1.2	0.0	1.2	0.7	0.0	-	-	1.2	3.6	-	0.0	0.0	-	-	2.0	0.6	0.0	0.8	0.0	-	-	0.4	1.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	-	2	-	-	-	-	-	-	39	-	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

Wheeling, WV
Route 40 & Park Rd
Friday, January 24, 2020
Location: 40.076494, -80.697291

Count Name: Route 40/Park Rd
Site Code:
Start Date: 01/24/2020



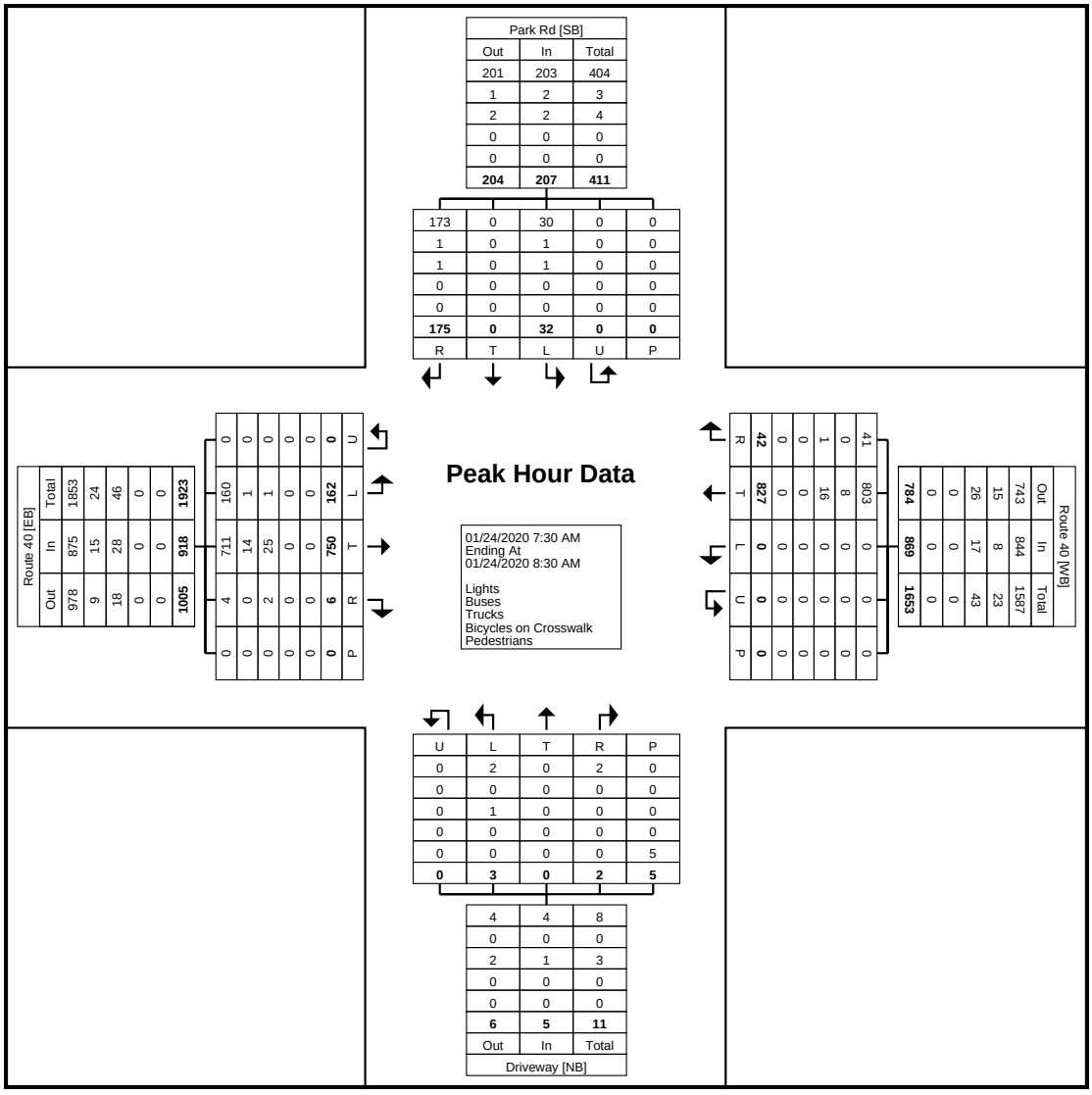
Turning Movement Data Plot

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Driveway Northbound							Park Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:30 AM	17	199	2	0	0	0	218	0	217	7	0	0	0	224	1	0	0	0	0	0	1	9	0	7	23	0	0	39	482
7:45 AM	44	245	0	0	0	0	289	0	243	9	2	0	0	254	1	0	0	0	0	3	1	7	0	12	22	0	0	41	585
8:00 AM	57	159	2	0	0	0	218	0	194	16	0	0	0	210	1	0	0	1	0	1	2	7	0	26	24	0	0	57	487
8:15 AM	44	147	2	0	0	0	193	0	173	7	1	0	0	181	0	0	0	1	0	1	1	9	0	42	19	0	0	70	445
Total	162	750	6	0	0	0	918	0	827	39	3	0	0	869	3	0	0	2	0	5	5	32	0	87	88	0	0	207	1999
Approach %	17.6	81.7	0.7	0.0	0.0	-	-	0.0	95.2	4.5	0.3	0.0	-	-	60.0	0.0	0.0	40.0	0.0	-	-	15.5	0.0	42.0	42.5	0.0	-	-	-
Total %	8.1	37.5	0.3	0.0	0.0	-	45.9	0.0	41.4	2.0	0.2	0.0	-	43.5	0.2	0.0	0.0	0.1	0.0	-	0.3	1.6	0.0	4.4	4.4	0.0	-	10.4	-
PHF	0.711	0.765	0.750	0.000	0.000	-	0.794	0.000	0.851	0.609	0.375	0.000	-	0.855	0.750	0.000	0.000	0.500	0.000	-	0.625	0.889	0.000	0.518	0.917	0.000	-	0.739	0.854
Lights	160	711	4	0	0	-	875	0	803	38	3	0	-	844	2	0	0	2	0	-	4	30	0	86	87	0	-	203	1926
% Lights	98.8	94.8	66.7	-	-	-	95.3	-	97.1	97.4	100.0	-	-	97.1	66.7	-	-	100.0	-	-	80.0	93.8	-	98.9	98.9	-	-	98.1	96.3
Buses	1	14	0	0	0	-	15	0	8	0	0	0	-	8	0	0	0	0	0	-	0	1	0	0	1	0	-	2	25
% Buses	0.6	1.9	0.0	-	-	-	1.6	-	1.0	0.0	0.0	-	-	0.9	0.0	-	-	0.0	-	-	0.0	3.1	-	0.0	1.1	-	-	1.0	1.3
Trucks	1	25	2	0	0	-	28	0	16	1	0	0	-	17	1	0	0	0	0	-	1	1	0	1	0	0	-	2	48
% Trucks	0.6	3.3	33.3	-	-	-	3.1	-	1.9	2.6	0.0	-	-	2.0	33.3	-	-	0.0	-	-	20.0	3.1	-	1.1	0.0	-	-	1.0	2.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

Wheeling, WV
Route 40 & Park Rd
Friday, January 24, 2020
Location: 40.076494, -80.697291

Count Name: Route 40/Park Rd
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

Turning Movement Peak Hour Data (3:00 PM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Driveway Northbound							Park Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
3:00 PM	43	196	2	0	0	0	241	0	247	10	0	0	0	257	1	0	3	1	0	4	5	9	0	9	29	0	0	47	550
3:15 PM	31	221	0	1	0	0	253	2	262	12	0	0	0	276	2	0	0	0	0	3	2	23	0	33	20	0	0	76	607
3:30 PM	25	210	3	2	0	0	240	2	225	9	1	0	0	237	1	0	0	0	0	5	1	15	0	18	19	0	0	52	530
3:45 PM	21	219	4	0	0	1	244	1	237	10	0	0	0	248	1	0	0	2	0	4	3	8	0	6	20	0	1	34	529
Total	120	846	9	3	0	1	978	5	971	41	1	0	0	1018	5	0	3	3	0	16	11	55	0	66	88	0	1	209	2216
Approach %	12.3	86.5	0.9	0.3	0.0	-	-	0.5	95.4	4.0	0.1	0.0	-	-	45.5	0.0	27.3	27.3	0.0	-	-	26.3	0.0	31.6	42.1	0.0	-	-	-
Total %	5.4	38.2	0.4	0.1	0.0	-	44.1	0.2	43.8	1.9	0.0	0.0	-	45.9	0.2	0.0	0.1	0.1	0.0	-	0.5	2.5	0.0	3.0	4.0	0.0	-	9.4	-
PHF	0.698	0.957	0.563	0.375	0.000	-	0.966	0.625	0.927	0.854	0.250	0.000	-	0.922	0.625	0.000	0.250	0.375	0.000	-	0.550	0.598	0.000	0.500	0.759	0.000	-	0.688	0.913
Lights	117	832	9	3	0	-	961	5	953	40	1	0	-	999	5	0	3	3	0	-	11	55	0	66	88	0	-	209	2180
% Lights	97.5	98.3	100.0	100.0	-	-	98.3	100.0	98.1	97.6	100.0	-	-	98.1	100.0	-	100.0	100.0	-	-	100.0	100.0	-	100.0	100.0	-	-	100.0	98.4
Buses	3	11	0	0	0	-	14	0	8	1	0	0	-	9	0	0	0	0	0	-	0	0	0	0	0	0	-	0	23
% Buses	2.5	1.3	0.0	0.0	-	-	1.4	0.0	0.8	2.4	0.0	-	-	0.9	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	1.0
Trucks	0	3	0	0	0	-	3	0	10	0	0	0	-	10	0	0	0	0	0	-	0	0	0	0	0	0	-	0	13
% Trucks	0.0	0.4	0.0	0.0	-	-	0.3	0.0	1.0	0.0	0.0	-	-	1.0	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	16	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

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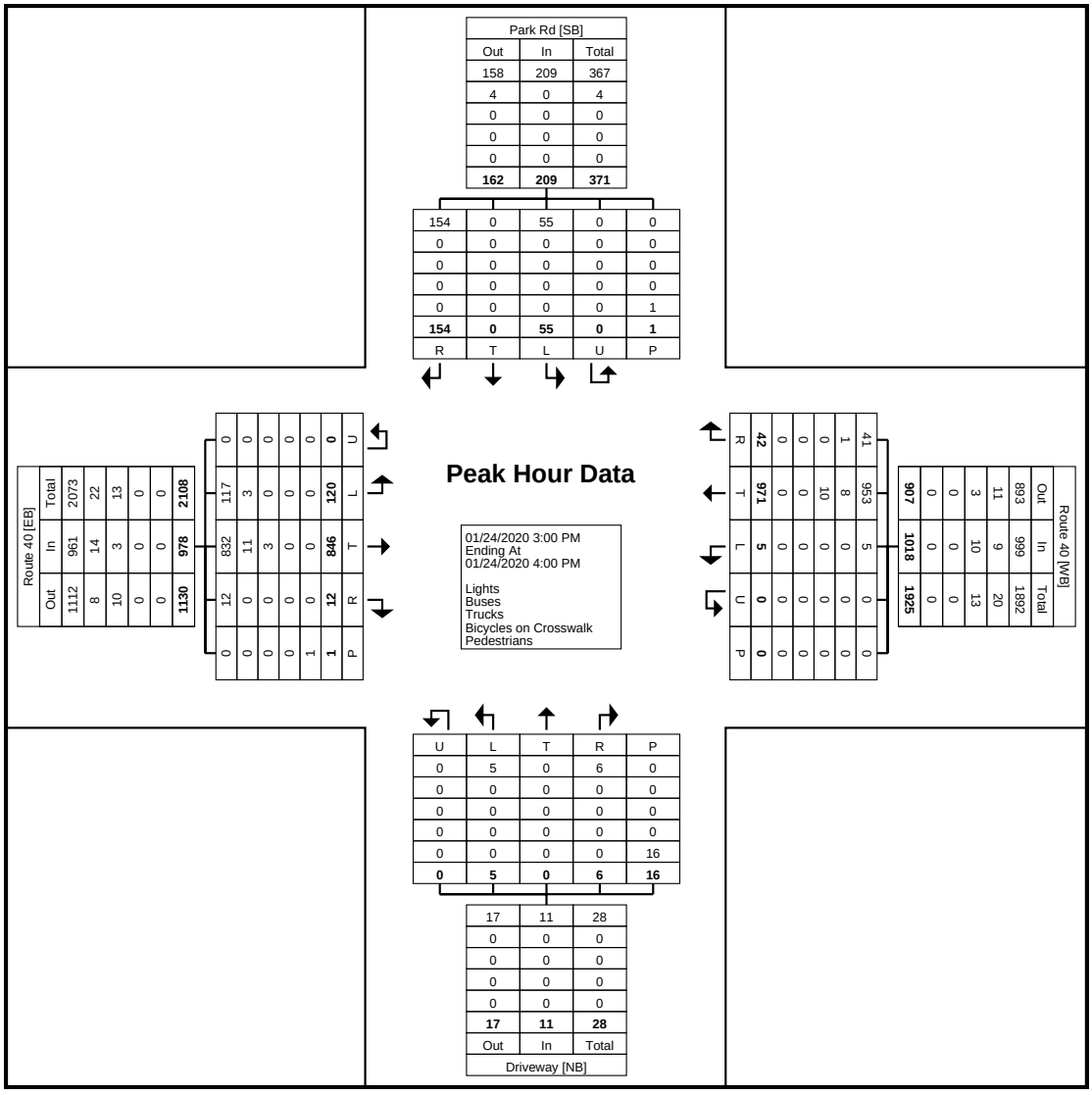
Wheeling, WV
Route 40 & Park Rd
Friday, January 24, 2020
Location: 40.076494, -80.697291

Count Name: Route 40/Park Rd
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (3:00 PM)

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Wheeling, WV
Route 40 & Park Rd
Saturday, January 25, 2020
Location: 40.076494, -80.697291

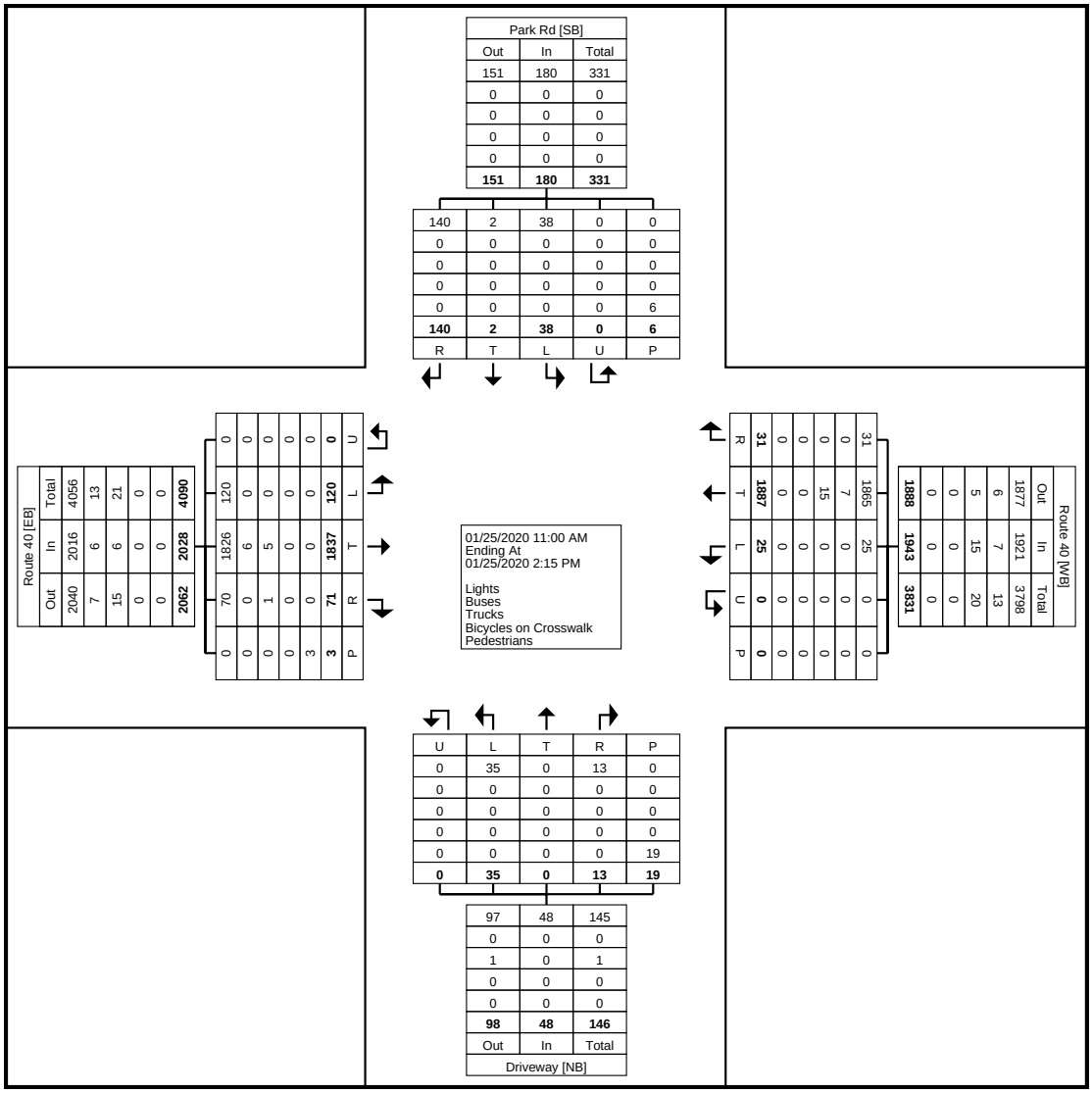
Count Name: Route 40/Park Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Route 40 Eastbound							Route 40 Westbound							Driveway Northbound							Park Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:00 AM	11	122	3	1	0	0	137	1	149	3	0	0	0	153	1	0	0	0	0	2	1	8	0	1	19	0	0	28	319
11:15 AM	10	145	3	1	0	0	159	2	150	1	0	0	0	153	2	0	1	0	0	1	3	4	0	1	16	0	1	21	336
11:30 AM	11	191	2	0	0	0	204	3	178	5	0	0	0	186	4	0	0	0	0	0	4	5	1	2	13	0	1	21	415
11:45 AM	13	165	11	1	0	0	190	4	172	3	0	0	0	179	0	0	0	0	0	3	0	5	0	3	6	0	0	14	383
Hourly Total	45	623	19	3	0	0	690	10	649	12	0	0	0	671	7	0	1	0	0	6	8	22	1	7	54	0	2	84	1453
12:00 PM	16	183	3	0	0	0	202	4	164	4	0	0	0	172	0	0	3	0	0	2	3	0	1	8	2	0	0	11	388
12:15 PM	4	162	10	0	0	0	176	2	146	1	0	0	0	149	0	0	0	0	0	1	0	4	0	1	9	0	0	14	339
12:30 PM	5	143	5	1	0	0	154	1	176	4	0	0	0	181	5	0	0	0	0	2	5	2	0	3	8	0	0	13	353
12:45 PM	15	142	2	1	0	3	160	3	152	2	0	0	0	157	2	0	1	2	0	1	5	4	0	8	6	0	4	18	340
Hourly Total	40	630	20	2	0	3	692	10	638	11	0	0	0	659	7	0	4	2	0	6	13	10	1	20	25	0	4	56	1420
1:00 PM	7	151	7	0	0	0	165	0	168	1	0	0	0	169	5	0	0	1	0	2	6	1	0	3	8	0	0	12	352
1:15 PM	10	117	5	0	0	0	132	1	150	2	1	0	0	154	10	0	3	0	0	2	13	2	0	1	5	0	0	8	307
1:30 PM	9	164	3	1	0	0	177	2	140	1	1	0	0	144	3	0	0	0	0	1	3	2	0	2	8	0	0	12	336
1:45 PM	9	152	9	2	0	0	172	2	142	2	0	0	0	146	3	0	2	0	0	2	5	1	0	2	5	0	0	8	331
Hourly Total	35	584	24	3	0	0	646	5	600	6	2	0	0	613	21	0	5	1	0	7	27	6	0	8	26	0	0	40	1326
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	120	1837	63	8	0	3	2028	25	1887	29	2	0	0	1943	35	0	10	3	0	19	48	38	2	35	105	0	6	180	4199
Approach %	5.9	90.6	3.1	0.4	0.0	-	-	1.3	97.1	1.5	0.1	0.0	-	-	72.9	0.0	20.8	6.3	0.0	-	-	21.1	1.1	19.4	58.3	0.0	-	-	-
Total %	2.9	43.7	1.5	0.2	0.0	-	48.3	0.6	44.9	0.7	0.0	0.0	-	46.3	0.8	0.0	0.2	0.1	0.0	-	1.1	0.9	0.0	0.8	2.5	0.0	-	4.3	-
Lights	120	1826	62	8	0	-	2016	25	1865	29	2	0	-	1921	35	0	10	3	0	-	48	38	2	35	105	0	-	180	4165
% Lights	100.0	99.4	98.4	100.0	-	-	99.4	100.0	98.8	100.0	100.0	-	-	98.9	100.0	-	100.0	100.0	-	-	100.0	100.0	100.0	100.0	100.0	-	-	100.0	99.2
Buses	0	6	0	0	0	-	6	0	7	0	0	0	-	7	0	0	0	0	0	-	0	0	0	0	0	0	-	0	13
% Buses	0.0	0.3	0.0	0.0	-	-	0.3	0.0	0.4	0.0	0.0	-	-	0.4	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	0	5	1	0	0	-	6	0	15	0	0	0	-	15	0	0	0	0	0	-	0	0	0	0	0	0	-	0	21
% Trucks	0.0	0.3	1.6	0.0	-	-	0.3	0.0	0.8	0.0	0.0	-	-	0.8	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	-	0	-	-	-	-	-	-	19	-	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

Wheeling, WV
Route 40 & Park Rd
Saturday, January 25, 2020
Location: 40.076494, -80.697291

Count Name: Route 40/Park Rd
SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Data Plot

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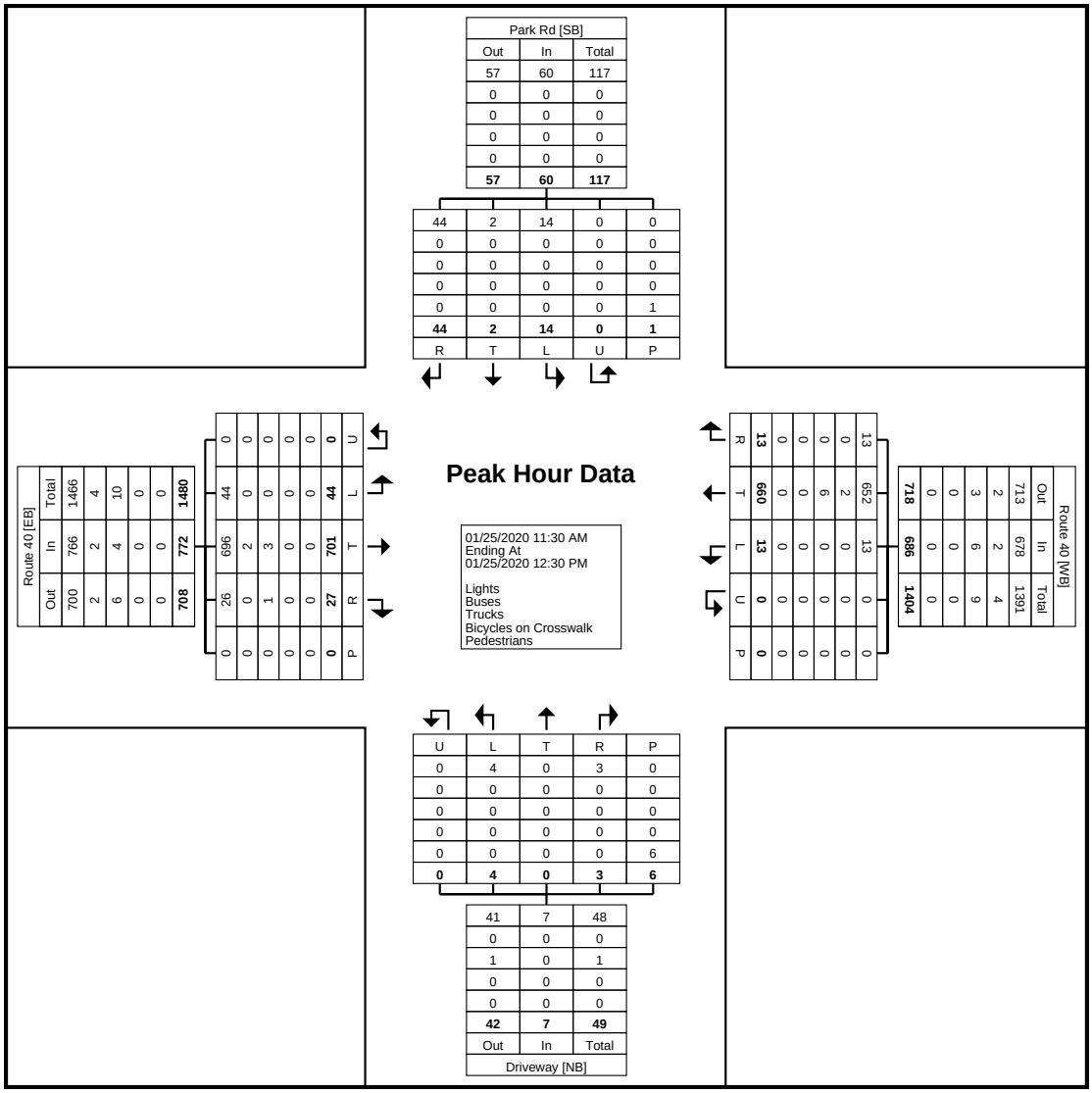
Wheeling, WV
Route 40 & Park Rd
Saturday, January 25, 2020
Location: 40.076494, -80.697291

Count Name: Route 40/Park Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Route 40 Eastbound							Route 40 Westbound							Driveway Northbound							Park Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:30 AM	11	191	2	0	0	0	204	3	178	5	0	0	0	186	4	0	0	0	0	0	4	5	1	2	13	0	1	21	415
11:45 AM	13	165	11	1	0	0	190	4	172	3	0	0	0	179	0	0	0	0	0	3	0	5	0	3	6	0	0	14	383
12:00 PM	16	183	3	0	0	0	202	4	164	4	0	0	0	172	0	0	3	0	0	2	3	0	1	8	2	0	0	11	388
12:15 PM	4	162	10	0	0	0	176	2	146	1	0	0	0	149	0	0	0	0	0	1	0	4	0	1	9	0	0	14	339
Total	44	701	26	1	0	0	772	13	660	13	0	0	0	686	4	0	3	0	0	6	7	14	2	14	30	0	1	60	1525
Approach %	5.7	90.8	3.4	0.1	0.0	-	-	1.9	96.2	1.9	0.0	0.0	-	-	57.1	0.0	42.9	0.0	0.0	-	-	23.3	3.3	23.3	50.0	0.0	-	-	-
Total %	2.9	46.0	1.7	0.1	0.0	-	50.6	0.9	43.3	0.9	0.0	0.0	-	45.0	0.3	0.0	0.2	0.0	0.0	-	0.5	0.9	0.1	0.9	2.0	0.0	-	3.9	-
PHF	0.688	0.918	0.591	0.250	0.000	-	0.946	0.813	0.927	0.650	0.000	0.000	-	0.922	0.250	0.000	0.250	0.000	0.000	-	0.438	0.700	0.500	0.438	0.577	0.000	-	0.714	0.919
Lights	44	696	25	1	0	-	766	13	652	13	0	0	-	678	4	0	3	0	0	-	7	14	2	14	30	0	-	60	1511
% Lights	100.0	99.3	96.2	100.0	-	-	99.2	100.0	98.8	100.0	-	-	-	98.8	100.0	-	100.0	-	-	-	100.0	100.0	100.0	100.0	100.0	-	-	100.0	99.1
Buses	0	2	0	0	0	-	2	0	2	0	0	0	-	2	0	0	0	0	0	-	0	0	0	0	0	0	-	0	4
% Buses	0.0	0.3	0.0	0.0	-	-	0.3	0.0	0.3	0.0	-	-	-	0.3	0.0	-	0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	0	3	1	0	0	-	4	0	6	0	0	0	-	6	0	0	0	0	0	-	0	0	0	0	0	0	-	0	10
% Trucks	0.0	0.4	3.8	0.0	-	-	0.5	0.0	0.9	0.0	-	-	-	0.9	0.0	-	0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.7
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (11:30 AM)

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Wheeling, WV
Mt DeChantal Rd & I70 EB Ramps
Friday, January 24, 2020
Location: 40.074655, -80.701221

Count Name: Mt DeChantal Rd/EB Ramps
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	EB Ramps Eastbound						EB Ramps Westbound		Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound					Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
7:00 AM	7	82	14	4	1	107	0	0	15	19	3	0	0	37	1	44	0	0	45	189
7:15 AM	1	118	15	2	0	136	0	0	24	35	1	0	0	60	0	60	0	0	60	256
7:30 AM	13	150	19	2	1	184	0	0	28	56	4	0	0	88	0	89	0	0	89	361
7:45 AM	10	170	23	2	0	205	0	0	47	62	2	0	0	111	0	103	0	0	103	419
Hourly Total	31	520	71	10	2	632	0	0	114	172	10	0	0	296	1	296	0	0	297	1225
8:00 AM	11	134	15	2	0	162	0	0	43	62	2	0	0	107	0	89	0	0	89	358
8:15 AM	15	102	5	8	1	130	0	0	46	53	1	0	0	100	0	96	0	0	96	326
8:30 AM	19	112	9	7	1	147	0	0	43	36	2	0	0	81	1	83	0	0	84	312
8:45 AM	16	72	7	2	0	97	0	0	54	49	2	0	0	105	1	81	0	0	82	284
Hourly Total	61	420	36	19	2	536	0	0	186	200	7	0	0	393	2	349	0	0	351	1280
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	14	132	29	2	2	177	1	0	45	57	5	0	0	107	0	102	0	1	102	386
3:15 PM	18	121	21	5	1	165	0	0	60	74	2	0	2	136	0	114	0	0	114	415
3:30 PM	15	109	21	10	4	155	0	0	71	71	2	0	0	144	0	99	0	0	99	398
3:45 PM	18	134	24	6	0	182	4	0	64	69	2	0	0	135	0	96	0	4	96	413
Hourly Total	65	496	95	23	7	679	5	0	240	271	11	0	2	522	0	411	0	5	411	1612
4:00 PM	15	134	25	2	5	176	1	0	74	76	0	0	2	150	0	84	0	0	84	410
4:15 PM	10	138	22	0	2	170	0	0	76	61	0	0	2	137	0	90	0	0	90	397
4:30 PM	19	148	34	4	0	205	0	0	73	73	1	0	0	147	0	86	0	0	86	438
4:45 PM	9	129	25	5	9	168	1	0	64	81	0	0	3	145	0	94	0	1	94	407
Hourly Total	53	549	106	11	16	719	2	0	287	291	1	0	7	579	0	354	0	1	354	1652
5:00 PM	8	139	22	1	3	170	0	0	56	62	6	0	1	124	0	84	0	0	84	378
5:15 PM	18	141	12	4	3	175	0	0	69	72	1	0	0	142	0	78	0	0	78	395
5:30 PM	12	138	22	3	0	175	0	0	52	64	1	0	0	117	0	78	0	0	78	370
5:45 PM	17	122	27	3	2	169	0	0	45	73	5	0	1	123	0	79	0	0	79	371
Hourly Total	55	540	83	11	8	689	0	0	222	271	13	0	2	506	0	319	0	0	319	1514
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	265	2525	391	74	35	3255	7	0	1049	1205	42	0	11	2296	3	1729	0	6	1732	7283
Approach %	8.1	77.6	12.0	2.3	-	-	-	-	45.7	52.5	1.8	0.0	-	-	0.2	99.8	0.0	-	-	-
Total %	3.6	34.7	5.4	1.0	-	44.7	-	0.0	14.4	16.5	0.6	0.0	-	31.5	0.0	23.7	0.0	-	23.8	-
Lights	256	2482	387	72	-	3197	-	0	986	1182	41	0	-	2209	3	1682	0	-	1685	7091
% Lights	96.6	98.3	99.0	97.3	-	98.2	-	-	94.0	98.1	97.6	-	-	96.2	100.0	97.3	-	-	97.3	97.4
Buses	2	17	0	0	-	19	-	0	43	6	0	0	-	49	0	17	0	-	17	85
% Buses	0.8	0.7	0.0	0.0	-	0.6	-	-	4.1	0.5	0.0	-	-	2.1	0.0	1.0	-	-	1.0	1.2
Trucks	7	26	4	2	-	39	-	0	20	17	1	0	-	38	0	30	0	-	30	107
% Trucks	2.6	1.0	1.0	2.7	-	1.2	-	-	1.9	1.4	2.4	-	-	1.7	0.0	1.7	-	-	1.7	1.5
Bicycles on Crosswalk	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	0.0	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	35	-	7	-	-	-	-	-	11	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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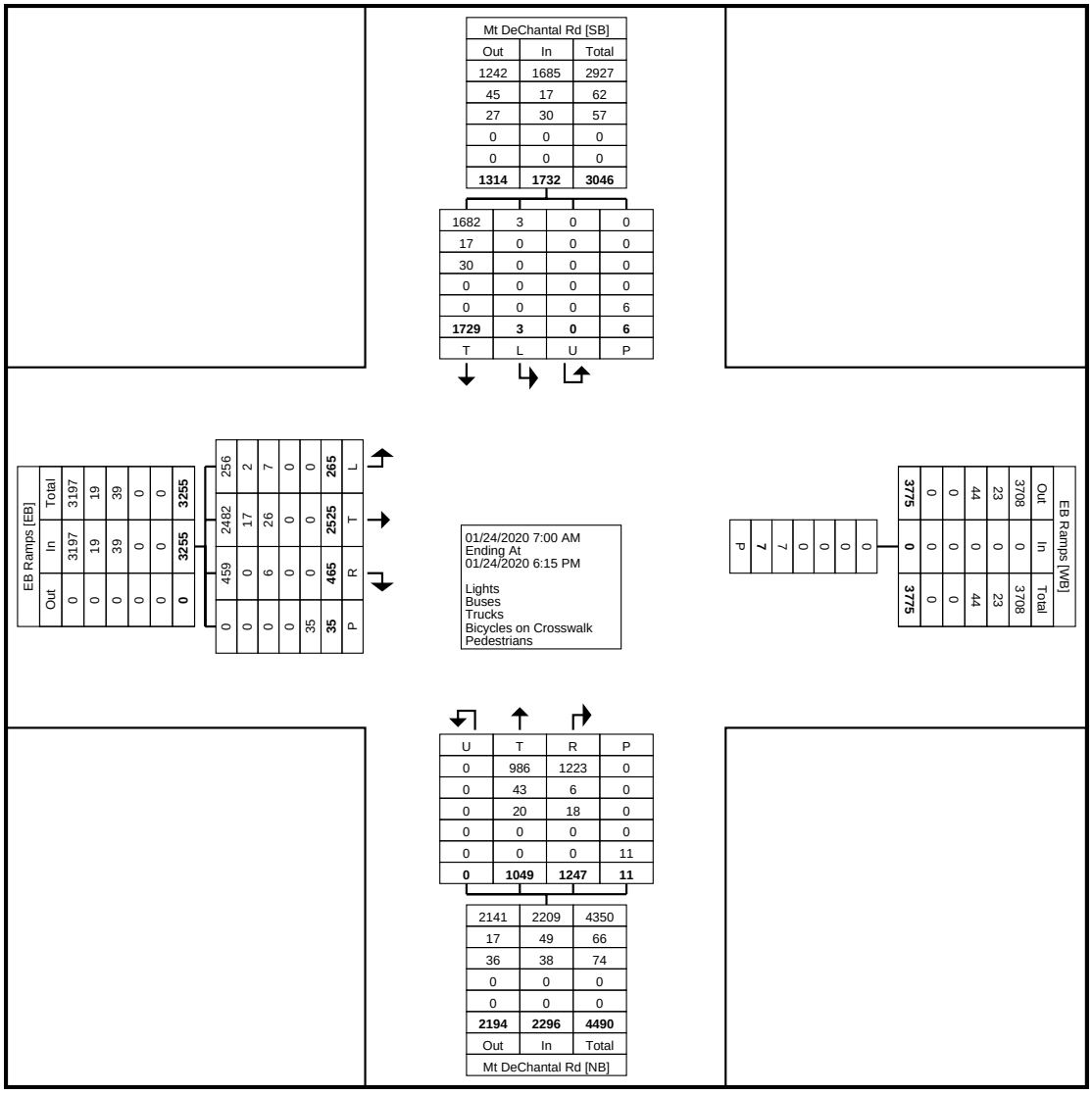

Turning Movement Data Plot

Wheeling, WV
Mt DeChantal Rd & I70 EB Ramps
Friday, January 24, 2020
Location: 40.074655, -80.701221

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Count Name: Mt DeChantal Rd/EB Ramps
Site Code:
Start Date: 01/24/2020
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

Start Time	EB Ramps Eastbound						EB Ramps Westbound		Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound					
	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
7:30 AM	13	150	19	2	1	184	0	0	28	56	4	0	0	88	0	89	0	0	89	361
7:45 AM	10	170	23	2	0	205	0	0	47	62	2	0	0	111	0	103	0	0	103	419
8:00 AM	11	134	15	2	0	162	0	0	43	62	2	0	0	107	0	89	0	0	89	358
8:15 AM	15	102	5	8	1	130	0	0	46	53	1	0	0	100	0	96	0	0	96	326
Total	49	556	62	14	2	681	0	0	164	233	9	0	0	406	0	377	0	0	377	1464
Approach %	7.2	81.6	9.1	2.1	-	-	-	-	40.4	57.4	2.2	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	3.3	38.0	4.2	1.0	-	46.5	-	0.0	11.2	15.9	0.6	0.0	-	27.7	0.0	25.8	0.0	-	25.8	-
PHF	0.817	0.818	0.674	0.438	-	0.830	-	0.000	0.872	0.940	0.563	0.000	-	0.914	0.000	0.915	0.000	-	0.915	0.874
Lights	48	533	62	14	-	657	-	0	156	222	9	0	-	387	0	366	0	-	366	1410
% Lights	98.0	95.9	100.0	100.0	-	96.5	-	-	95.1	95.3	100.0	-	-	95.3	-	97.1	-	-	97.1	96.3
Buses	1	7	0	0	-	8	-	0	4	2	0	0	-	6	0	3	0	-	3	17
% Buses	2.0	1.3	0.0	0.0	-	1.2	-	-	2.4	0.9	0.0	-	-	1.5	-	0.8	-	-	0.8	1.2
Trucks	0	16	0	0	-	16	-	0	4	9	0	0	-	13	0	8	0	-	8	37
% Trucks	0.0	2.9	0.0	0.0	-	2.3	-	-	2.4	3.9	0.0	-	-	3.2	-	2.1	-	-	2.1	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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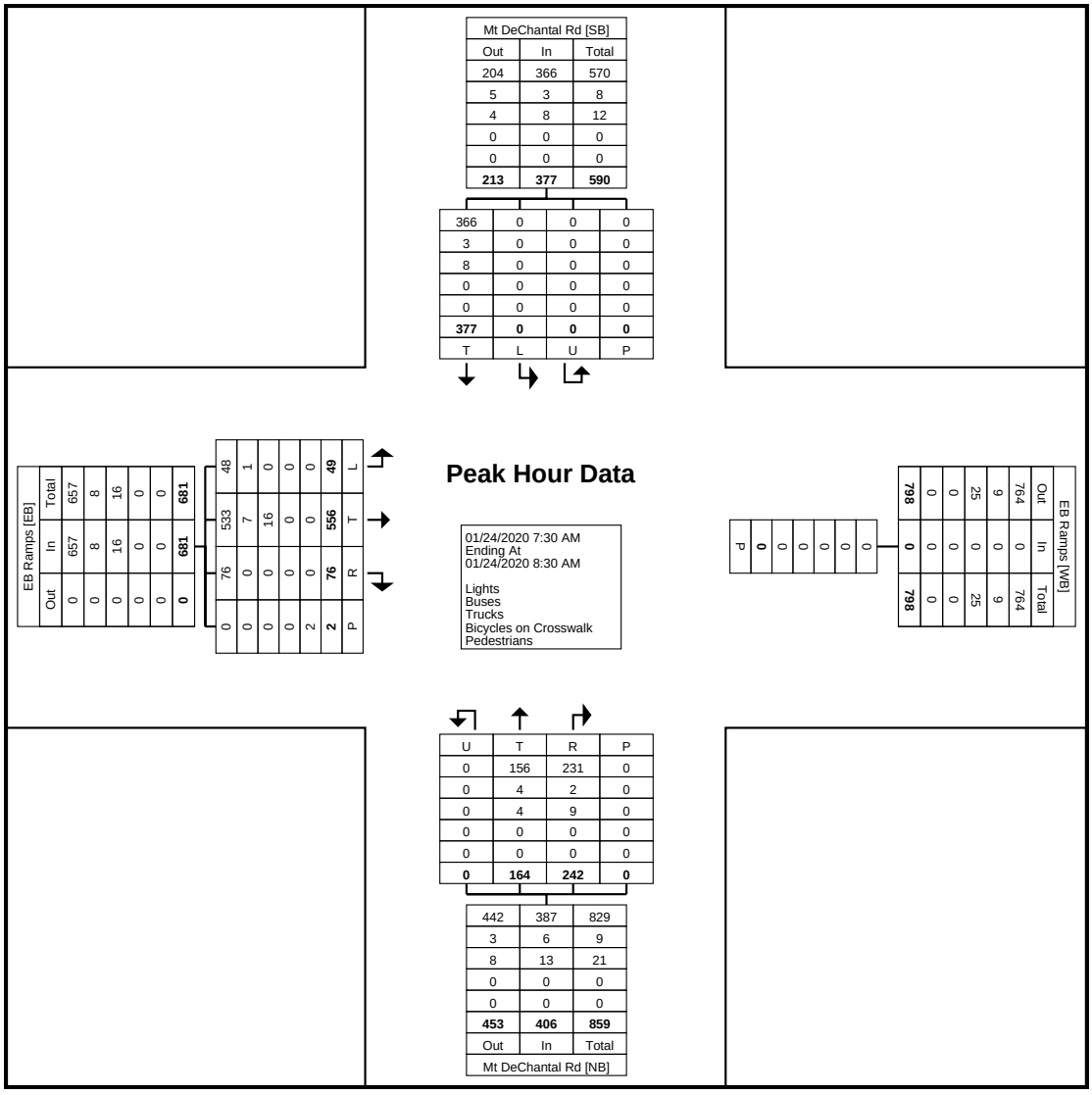

Turning Movement Peak Hour Data Plot (7:30 AM)

Wheeling, WV
Mt DeChantal Rd & I70 EB Ramps
Friday, January 24, 2020
Location: 40.074655, -80.701221

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Turning Movement Peak Hour Data (3:45 PM)

Start Time	EB Ramps Eastbound						EB Ramps Westbound		Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound					
	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
3:45 PM	18	134	24	6	0	182	4	0	64	69	2	0	0	135	0	96	0	4	96	413
4:00 PM	15	134	25	2	5	176	1	0	74	76	0	0	2	150	0	84	0	0	84	410
4:15 PM	10	138	22	0	2	170	0	0	76	61	0	0	2	137	0	90	0	0	90	397
4:30 PM	19	148	34	4	0	205	0	0	73	73	1	0	0	147	0	86	0	0	86	438
Total	62	554	105	12	7	733	5	0	287	279	3	0	4	569	0	356	0	4	356	1658
Approach %	8.5	75.6	14.3	1.6	-	-	-	-	50.4	49.0	0.5	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	3.7	33.4	6.3	0.7	-	44.2	-	0.0	17.3	16.8	0.2	0.0	-	34.3	0.0	21.5	0.0	-	21.5	-
PHF	0.816	0.936	0.772	0.500	-	0.894	-	0.000	0.944	0.918	0.375	0.000	-	0.948	0.000	0.927	0.000	-	0.927	0.946
Lights	60	551	105	12	-	728	-	0	272	277	3	0	-	552	0	350	0	-	350	1630
% Lights	96.8	99.5	100.0	100.0	-	99.3	-	-	94.8	99.3	100.0	-	-	97.0	-	98.3	-	-	98.3	98.3
Buses	0	1	0	0	-	1	-	0	9	1	0	0	-	10	0	4	0	-	4	15
% Buses	0.0	0.2	0.0	0.0	-	0.1	-	-	3.1	0.4	0.0	-	-	1.8	-	1.1	-	-	1.1	0.9
Trucks	2	2	0	0	-	4	-	0	6	1	0	0	-	7	0	2	0	-	2	13
% Trucks	3.2	0.4	0.0	0.0	-	0.5	-	-	2.1	0.4	0.0	-	-	1.2	-	0.6	-	-	0.6	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	0.0	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	7	-	5	-	-	-	-	-	4	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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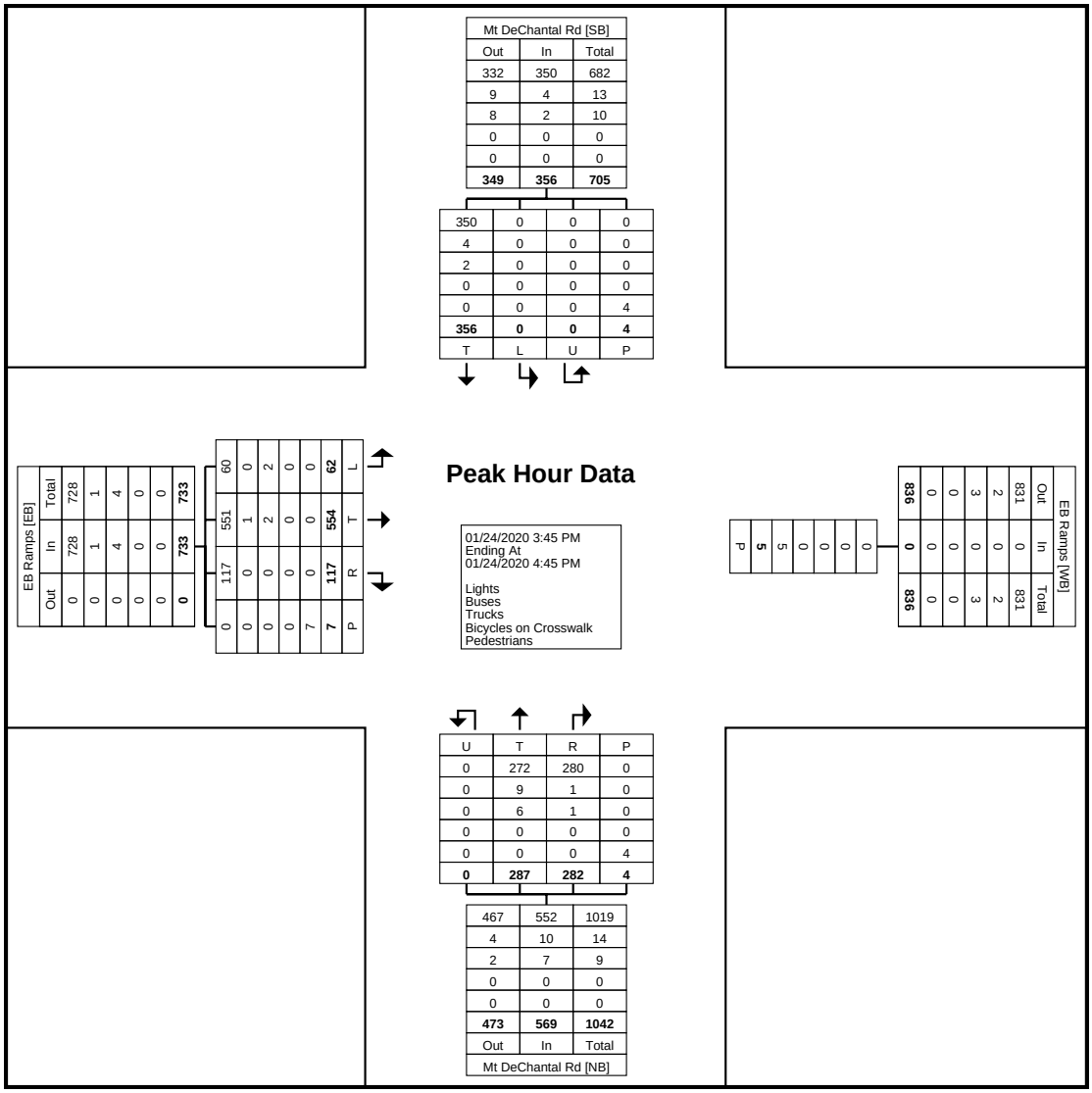

Turning Movement Peak Hour Data Plot (3:45 PM)

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Wheeling, WV
Mt DeChantal Rd & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.074628, -80.701231

Count Name: Mt DeChantal Rd/EB Ramps SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	EB Ramps Eastbound						EB Ramps Westbound		Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound					Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
11:00 AM	11	72	19	5	0	107	0	0	42	51	3	0	1	96	0	77	0	0	77	280
11:15 AM	13	84	17	10	0	124	0	0	40	47	4	0	0	91	0	53	0	0	53	268
11:30 AM	16	100	27	6	0	149	0	0	39	48	2	0	0	89	0	87	0	0	87	325
11:45 AM	20	107	22	6	0	155	1	0	58	63	1	0	0	122	0	83	0	0	83	360
Hourly Total	60	363	85	27	0	535	1	0	179	209	10	0	1	398	0	300	0	0	300	1233
12:00 PM	21	103	9	6	0	139	0	0	52	65	2	0	0	119	0	85	0	0	85	343
12:15 PM	13	83	15	5	0	116	0	0	43	62	4	0	0	109	0	76	0	0	76	301
12:30 PM	11	75	10	5	0	101	0	0	38	50	2	0	0	90	1	87	0	0	88	279
12:45 PM	11	83	21	6	0	121	0	0	37	47	6	0	0	90	0	66	0	0	66	277
Hourly Total	56	344	55	22	0	477	0	0	170	224	14	0	0	408	1	314	0	0	315	1200
1:00 PM	15	88	20	4	2	127	0	0	38	51	2	0	1	91	0	76	0	0	76	294
1:15 PM	7	68	19	9	0	103	0	0	40	52	2	0	0	94	0	70	0	0	70	267
1:30 PM	13	82	26	5	0	126	1	0	31	55	4	0	0	90	0	64	0	0	64	280
1:45 PM	12	91	17	4	0	124	1	0	32	53	4	0	0	89	0	65	0	0	65	278
Hourly Total	47	329	82	22	2	480	2	0	141	211	12	0	1	364	0	275	0	0	275	1119
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	163	1036	222	71	2	1492	3	0	490	644	36	0	2	1170	1	889	0	0	890	3552
Approach %	10.9	69.4	14.9	4.8	-	-	-	-	41.9	55.0	3.1	0.0	-	-	0.1	99.9	0.0	-	-	-
Total %	4.6	29.2	6.3	2.0	-	42.0	-	0.0	13.8	18.1	1.0	0.0	-	32.9	0.0	25.0	0.0	-	25.1	-
Lights	162	1034	220	71	-	1487	-	0	481	640	36	0	-	1157	1	878	0	-	879	3523
% Lights	99.4	99.8	99.1	100.0	-	99.7	-	-	98.2	99.4	100.0	-	-	98.9	100.0	98.8	-	-	98.8	99.2
Buses	0	0	0	0	-	0	-	0	6	3	0	0	-	9	0	9	0	-	9	18
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	-	1.2	0.5	0.0	-	-	0.8	0.0	1.0	-	-	1.0	0.5
Trucks	1	2	2	0	-	5	-	0	3	1	0	0	-	4	0	2	0	-	2	11
% Trucks	0.6	0.2	0.9	0.0	-	0.3	-	-	0.6	0.2	0.0	-	-	0.3	0.0	0.2	-	-	0.2	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	3	-	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-

Wheeling, WV
Mt DeChantal Rd & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.074628, -80.701231

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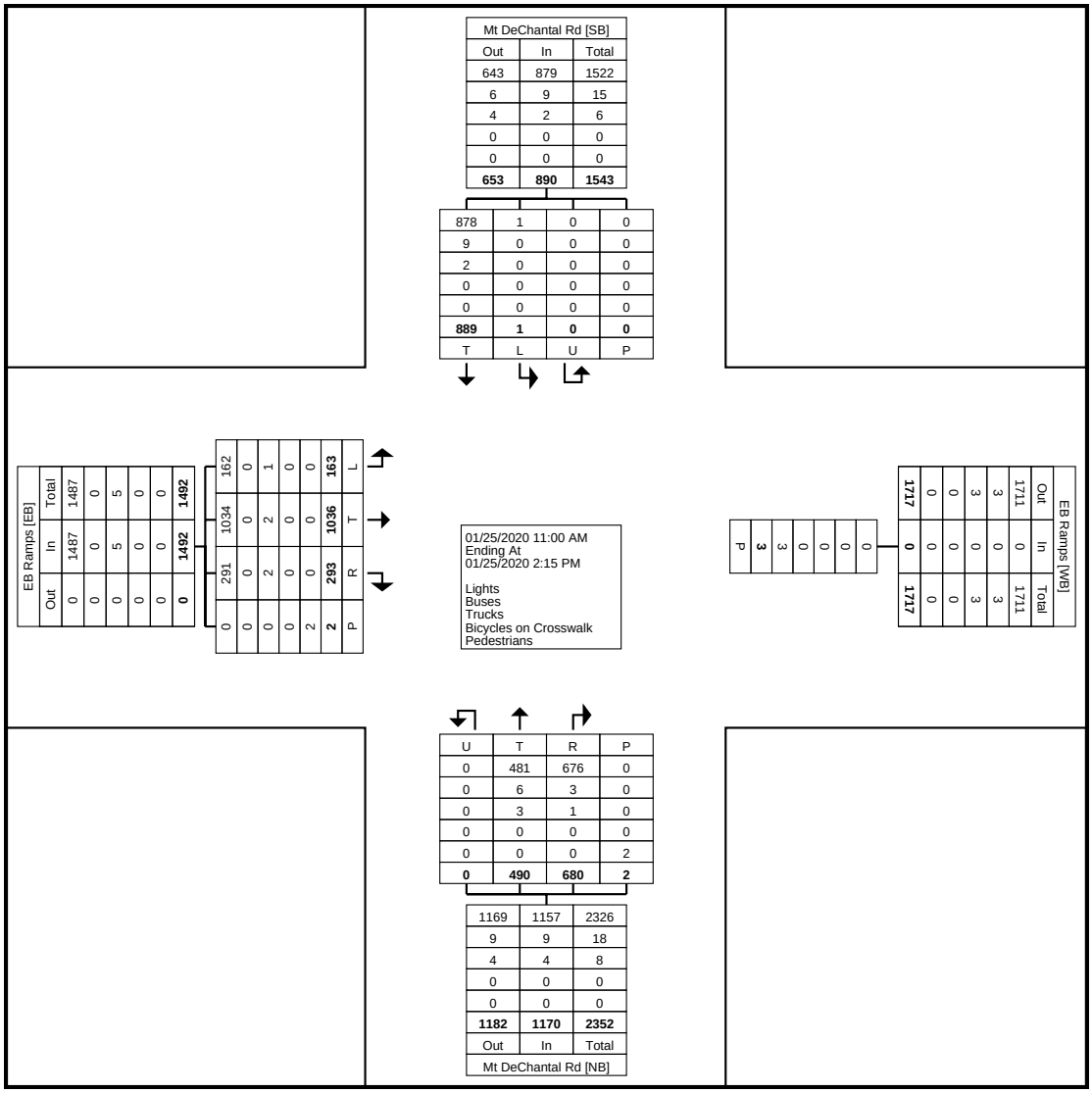
Count Name: Mt DeChantal Rd/EB Ramps SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Data Plot

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Wheeling, WV
Mt DeChantal Rd & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.074628, -80.701231

Count Name: Mt DeChantal Rd/EB Ramps SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	EB Ramps Eastbound						EB Ramps Westbound		Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound					
	Left	Thru	Right	Right on Red	Peds	App. Total	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
11:30 AM	16	100	27	6	0	149	0	0	39	48	2	0	0	89	0	87	0	0	87	325
11:45 AM	20	107	22	6	0	155	1	0	58	63	1	0	0	122	0	83	0	0	83	360
12:00 PM	21	103	9	6	0	139	0	0	52	65	2	0	0	119	0	85	0	0	85	343
12:15 PM	13	83	15	5	0	116	0	0	43	62	4	0	0	109	0	76	0	0	76	301
Total	70	393	73	23	0	559	1	0	192	238	9	0	0	439	0	331	0	0	331	1329
Approach %	12.5	70.3	13.1	4.1	-	-	-	-	43.7	54.2	2.1	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	5.3	29.6	5.5	1.7	-	42.1	-	0.0	14.4	17.9	0.7	0.0	-	33.0	0.0	24.9	0.0	-	24.9	-
PHF	0.833	0.918	0.676	0.958	-	0.902	-	0.000	0.828	0.915	0.563	0.000	-	0.900	0.000	0.951	0.000	-	0.951	0.923
Lights	70	392	73	23	-	558	-	0	190	236	9	0	-	435	0	326	0	-	326	1319
% Lights	100.0	99.7	100.0	100.0	-	99.8	-	-	99.0	99.2	100.0	-	-	99.1	-	98.5	-	-	98.5	99.2
Buses	0	0	0	0	-	0	-	0	2	1	0	0	-	3	0	3	0	-	3	6
% Buses	0.0	0.0	0.0	0.0	-	0.0	-	-	1.0	0.4	0.0	-	-	0.7	-	0.9	-	-	0.9	0.5
Trucks	0	1	0	0	-	1	-	0	0	1	0	0	-	1	0	2	0	-	2	4
% Trucks	0.0	0.3	0.0	0.0	-	0.2	-	-	0.0	0.4	0.0	-	-	0.2	-	0.6	-	-	0.6	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	1	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-

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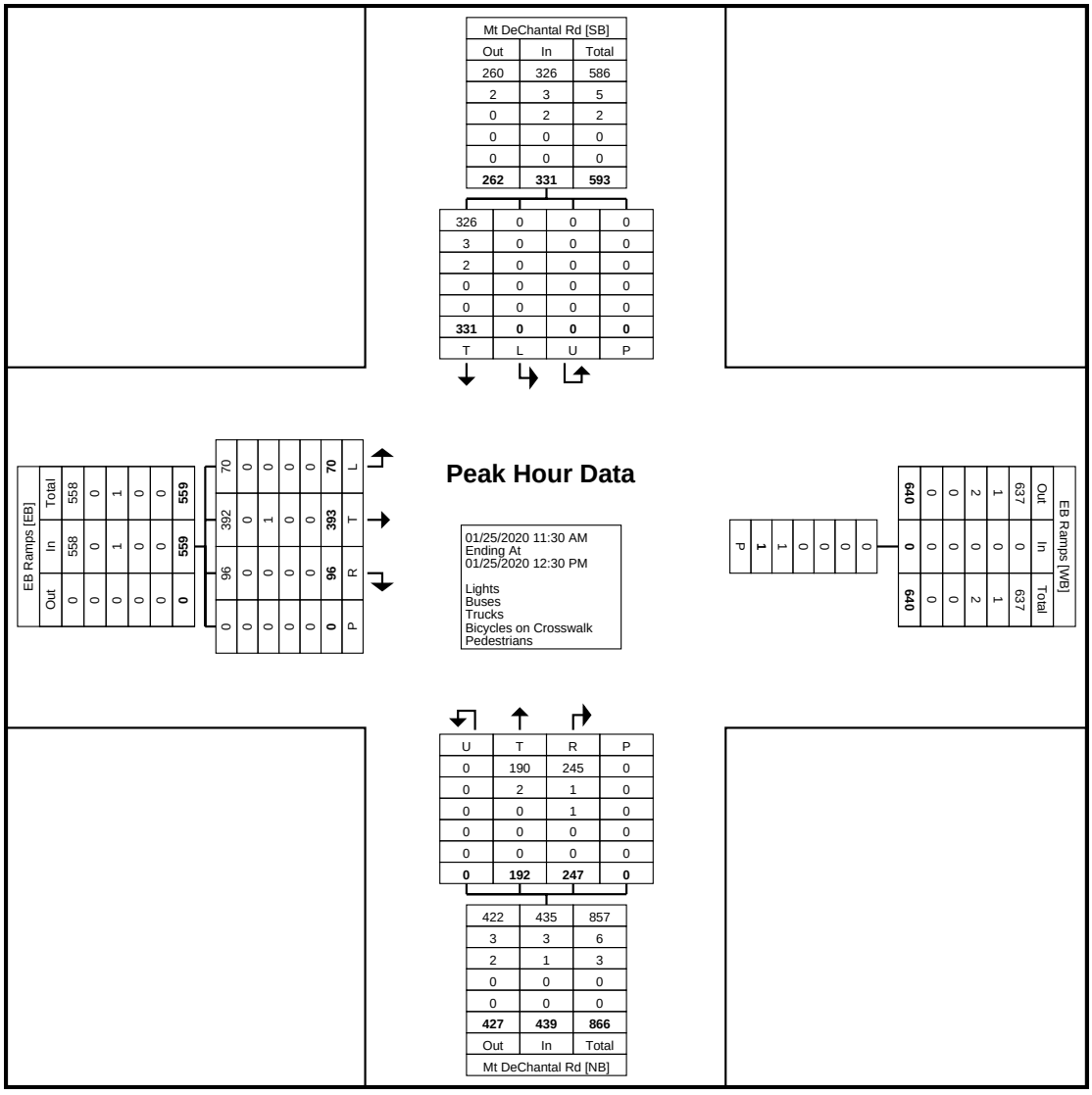

Turning Movement Peak Hour Data Plot (11:30 AM)

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Wheeling, WV
Route 40 & I70 EB Ramp
Friday, January 24, 2020
Location: 40.075007, -80.700807

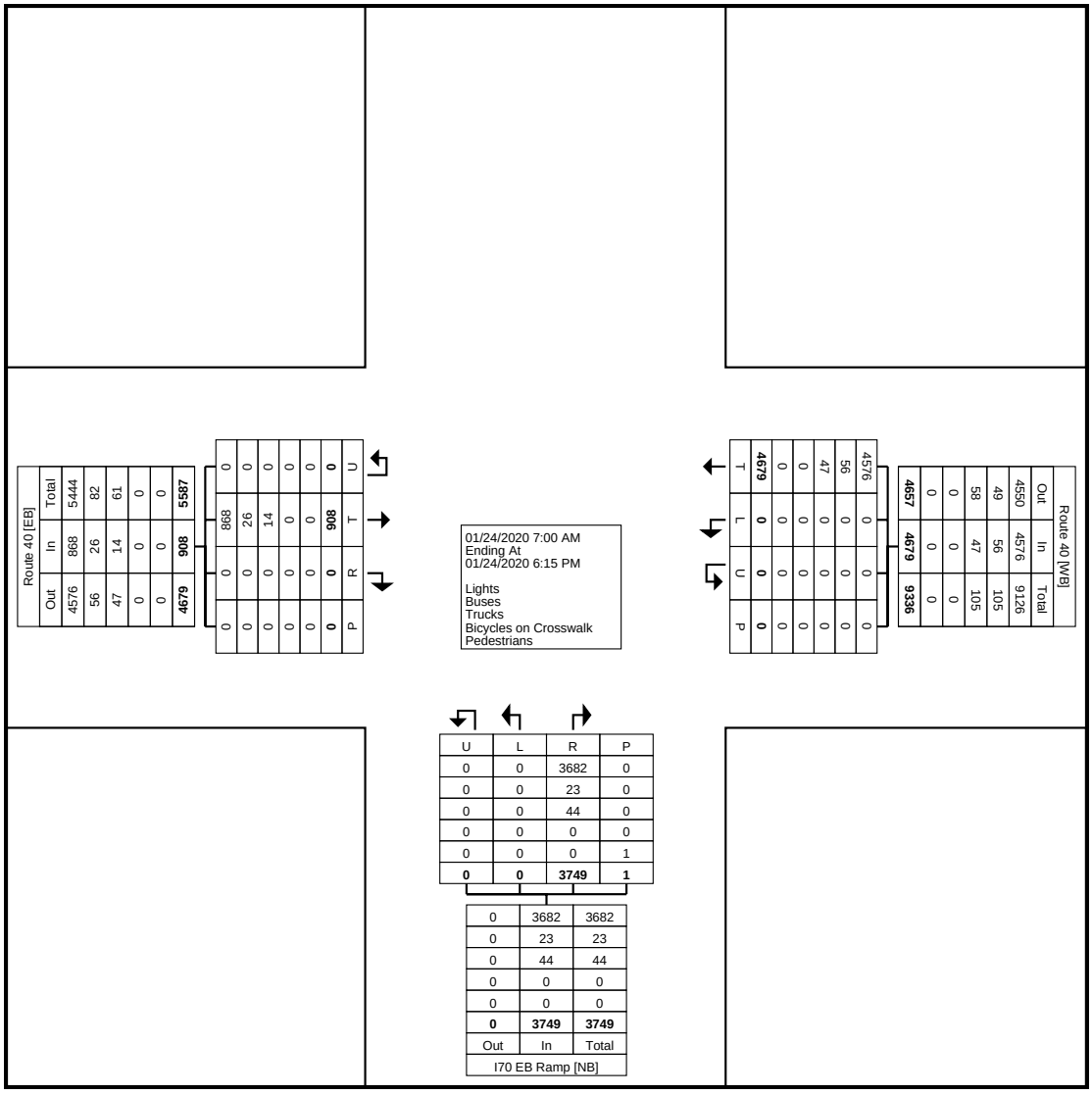
Count Name: Route 40/I70 EB Ramp
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Route 40 Eastbound					Route 40 Westbound					I70 EB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	31	0	0	0	31	0	141	0	0	141	0	116	0	0	116	288
7:15 AM	35	0	0	0	35	0	205	0	0	205	0	159	0	0	159	399
7:30 AM	34	0	0	0	34	0	249	0	0	249	0	201	0	0	201	484
7:45 AM	53	0	0	0	53	0	276	0	0	276	0	243	0	0	243	572
Hourly Total	153	0	0	0	153	0	871	0	0	871	0	719	0	0	719	1743
8:00 AM	28	0	0	0	28	0	251	0	0	251	0	184	0	0	184	463
8:15 AM	26	0	0	0	26	0	228	0	0	228	0	167	0	0	167	421
8:30 AM	24	0	0	0	24	0	227	0	0	227	0	142	0	0	142	393
8:45 AM	47	0	0	0	47	0	216	0	0	216	0	127	0	0	127	390
Hourly Total	125	0	0	0	125	0	922	0	0	922	0	620	0	0	620	1667
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	49	0	0	0	49	0	294	0	0	294	0	193	0	0	193	536
3:15 PM	51	0	0	0	51	0	312	0	0	312	0	203	0	0	203	566
3:30 PM	52	0	0	0	52	0	264	0	0	264	0	193	0	0	193	509
3:45 PM	45	0	0	0	45	0	253	0	0	253	0	197	0	0	197	495
Hourly Total	197	0	0	0	197	0	1123	0	0	1123	0	786	0	0	786	2106
4:00 PM	49	0	0	0	49	0	223	0	0	223	0	195	0	0	195	467
4:15 PM	56	0	0	0	56	0	212	0	0	212	0	196	0	0	196	464
4:30 PM	46	0	0	0	46	0	230	0	0	230	0	223	0	0	223	499
4:45 PM	45	0	0	0	45	0	213	0	0	213	0	213	0	0	213	471
Hourly Total	196	0	0	0	196	0	878	0	0	878	0	827	0	0	827	1901
5:00 PM	80	0	0	0	80	0	236	0	0	236	0	208	0	0	208	524
5:15 PM	73	0	0	0	73	0	242	0	0	242	0	199	0	0	199	514
5:30 PM	44	0	0	0	44	0	198	0	0	198	0	198	0	1	198	440
5:45 PM	40	0	0	0	40	0	209	0	0	209	0	192	0	0	192	441
Hourly Total	237	0	0	0	237	0	885	0	0	885	0	797	0	1	797	1919
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	908	0	0	0	908	0	4679	0	0	4679	0	3749	0	1	3749	9336
Approach %	100.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	9.7	0.0	0.0	-	9.7	0.0	50.1	0.0	-	50.1	0.0	40.2	0.0	-	40.2	-
Lights	868	0	0	-	868	0	4576	0	-	4576	0	3682	0	-	3682	9126
% Lights	95.6	-	-	-	95.6	-	97.8	-	-	97.8	-	98.2	-	-	98.2	97.8
Buses	26	0	0	-	26	0	56	0	-	56	0	23	0	-	23	105
% Buses	2.9	-	-	-	2.9	-	1.2	-	-	1.2	-	0.6	-	-	0.6	1.1
Trucks	14	0	0	-	14	0	47	0	-	47	0	44	0	-	44	105
% Trucks	1.5	-	-	-	1.5	-	1.0	-	-	1.0	-	1.2	-	-	1.2	1.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Wheeling, WV
Route 40 & I70 EB Ramp
Friday, January 24, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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Wheeling, WV
Route 40 & I70 EB Ramp
Friday, January 24, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Route 40 Eastbound					Route 40 Westbound					I70 EB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:30 AM	34	0	0	0	34	0	249	0	0	249	0	201	0	0	201	484
7:45 AM	53	0	0	0	53	0	276	0	0	276	0	243	0	0	243	572
8:00 AM	28	0	0	0	28	0	251	0	0	251	0	184	0	0	184	463
8:15 AM	26	0	0	0	26	0	228	0	0	228	0	167	0	0	167	421
Total	141	0	0	0	141	0	1004	0	0	1004	0	795	0	0	795	1940
Approach %	100.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	7.3	0.0	0.0	-	7.3	0.0	51.8	0.0	-	51.8	0.0	41.0	0.0	-	41.0	-
PHF	0.665	0.000	0.000	-	0.665	0.000	0.909	0.000	-	0.909	0.000	0.818	0.000	-	0.818	0.848
Lights	128	0	0	-	128	0	980	0	-	980	0	762	0	-	762	1870
% Lights	90.8	-	-	-	90.8	-	97.6	-	-	97.6	-	95.8	-	-	95.8	96.4
Buses	7	0	0	-	7	0	8	0	-	8	0	9	0	-	9	24
% Buses	5.0	-	-	-	5.0	-	0.8	-	-	0.8	-	1.1	-	-	1.1	1.2
Trucks	6	0	0	-	6	0	16	0	-	16	0	24	0	-	24	46
% Trucks	4.3	-	-	-	4.3	-	1.6	-	-	1.6	-	3.0	-	-	3.0	2.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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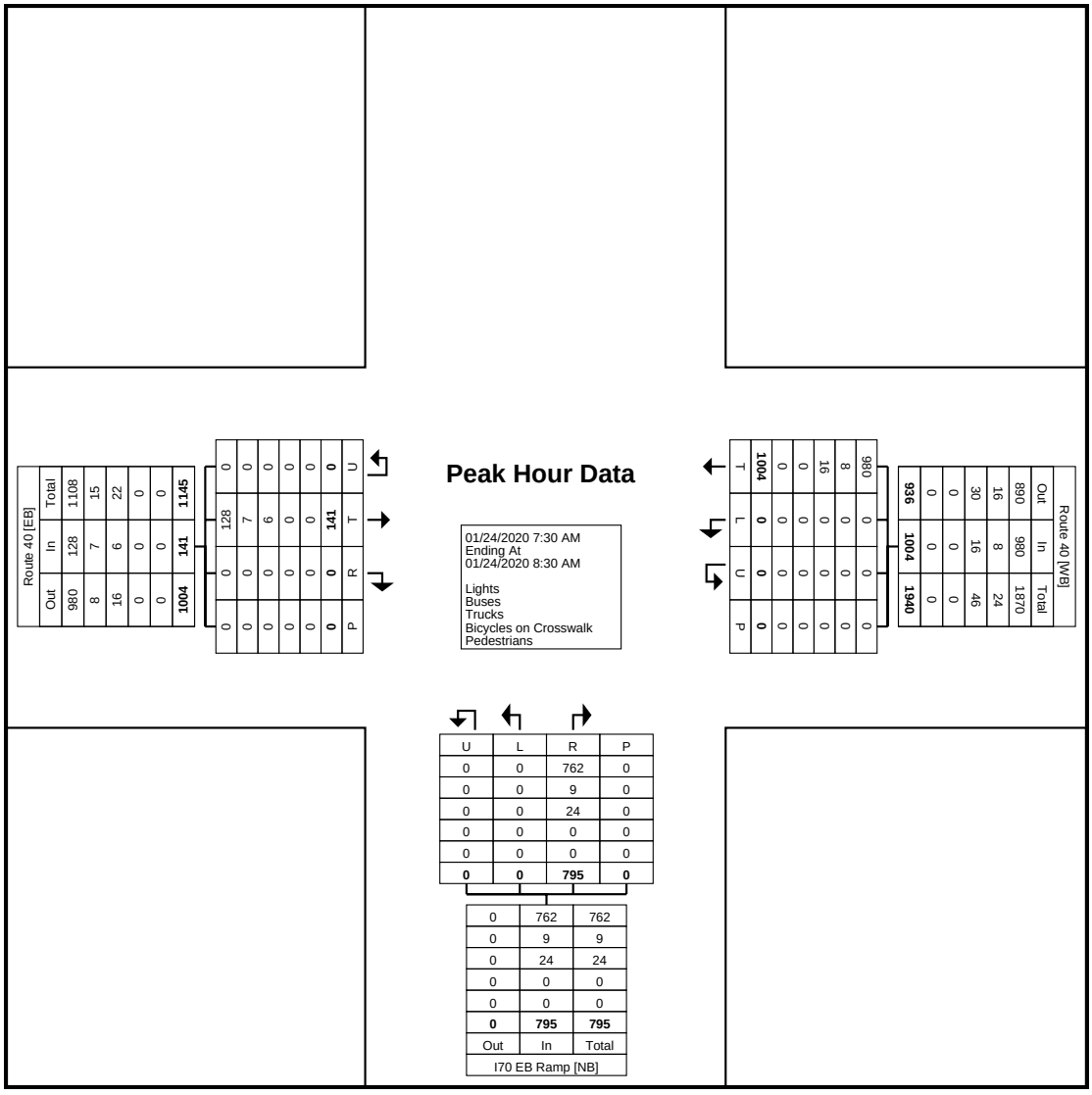
Wheeling, WV
Route 40 & I70 EB Ramp
Friday, January 24, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

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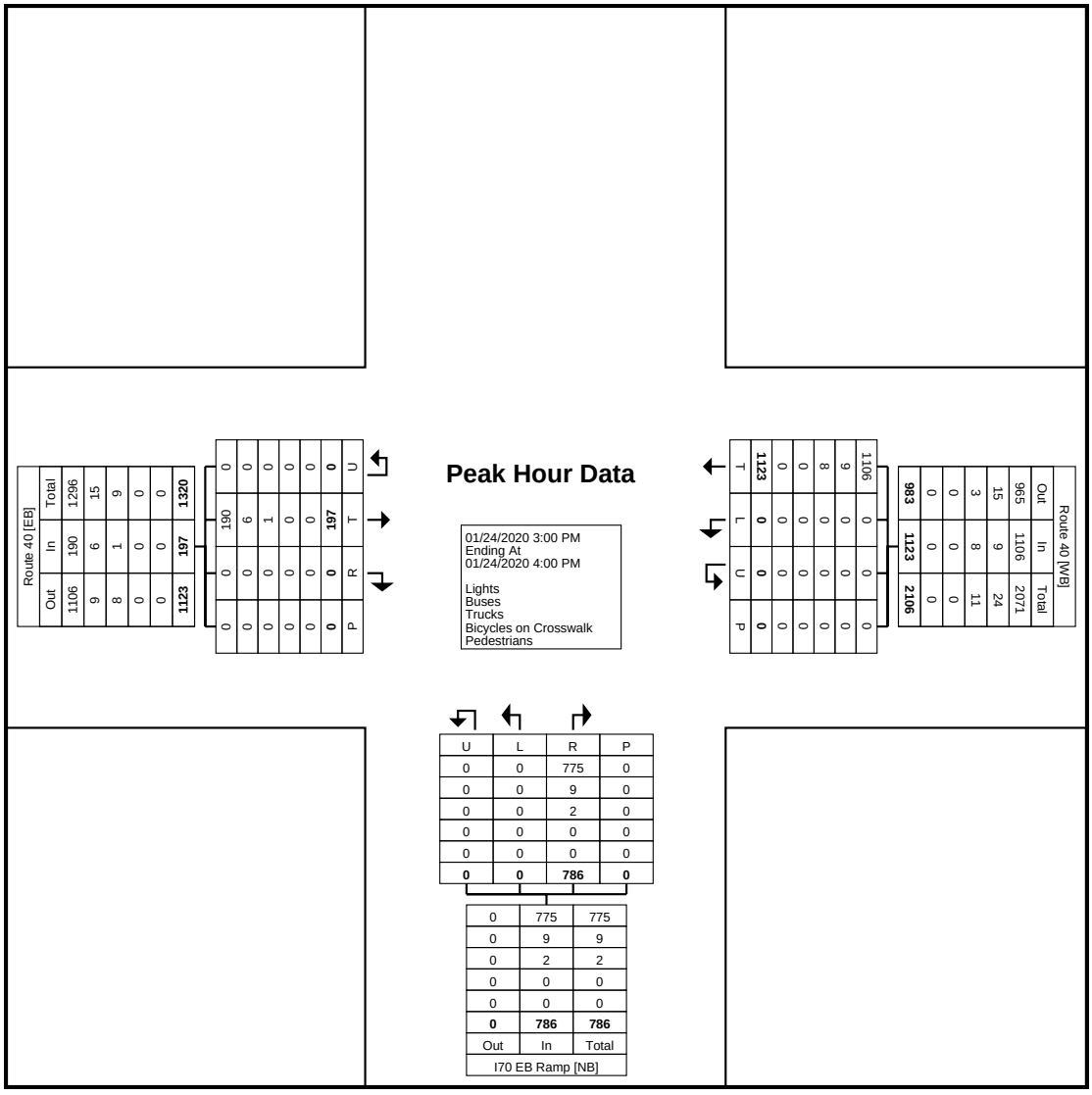
Wheeling, WV
Route 40 & I70 EB Ramp
Friday, January 24, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (3:00 PM)

Start Time	Route 40 Eastbound					Route 40 Westbound					I70 EB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
3:00 PM	49	0	0	0	49	0	294	0	0	294	0	193	0	0	193	536
3:15 PM	51	0	0	0	51	0	312	0	0	312	0	203	0	0	203	566
3:30 PM	52	0	0	0	52	0	264	0	0	264	0	193	0	0	193	509
3:45 PM	45	0	0	0	45	0	253	0	0	253	0	197	0	0	197	495
Total	197	0	0	0	197	0	1123	0	0	1123	0	786	0	0	786	2106
Approach %	100.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	9.4	0.0	0.0	-	9.4	0.0	53.3	0.0	-	53.3	0.0	37.3	0.0	-	37.3	-
PHF	0.947	0.000	0.000	-	0.947	0.000	0.900	0.000	-	0.900	0.000	0.968	0.000	-	0.968	0.930
Lights	190	0	0	-	190	0	1106	0	-	1106	0	775	0	-	775	2071
% Lights	96.4	-	-	-	96.4	-	98.5	-	-	98.5	-	98.6	-	-	98.6	98.3
Buses	6	0	0	-	6	0	9	0	-	9	0	9	0	-	9	24
% Buses	3.0	-	-	-	3.0	-	0.8	-	-	0.8	-	1.1	-	-	1.1	1.1
Trucks	1	0	0	-	1	0	8	0	-	8	0	2	0	-	2	11
% Trucks	0.5	-	-	-	0.5	-	0.7	-	-	0.7	-	0.3	-	-	0.3	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (3:00 PM)

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Wheeling, WV
Route 40 & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Route 40 Eastbound					Route 40 Westbound					I70 EB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:00 AM	27	0	0	0	27	0	178	0	0	178	0	122	0	0	122	327
11:15 AM	32	0	0	0	32	0	182	0	0	182	0	136	0	0	136	350
11:30 AM	47	0	0	0	47	0	197	0	0	197	0	150	0	0	150	394
11:45 AM	26	0	0	0	26	0	181	0	0	181	0	164	0	2	164	371
Hourly Total	132	0	0	0	132	0	738	0	0	738	0	572	0	2	572	1442
12:00 PM	43	0	0	0	43	0	191	0	0	191	0	175	0	0	175	409
12:15 PM	32	0	0	0	32	0	169	0	0	169	0	148	0	0	148	349
12:30 PM	28	0	0	0	28	0	182	0	1	182	0	135	0	0	135	345
12:45 PM	30	0	0	0	30	0	176	0	0	176	0	134	0	0	134	340
Hourly Total	133	0	0	0	133	0	718	0	1	718	0	592	0	0	592	1443
1:00 PM	29	0	0	0	29	0	179	0	0	179	0	136	0	1	136	344
1:15 PM	21	0	0	0	21	0	163	0	0	163	0	115	0	0	115	299
1:30 PM	29	0	0	0	29	0	153	0	0	153	0	140	0	0	140	322
1:45 PM	27	0	0	0	27	0	158	0	0	158	0	153	0	1	153	338
Hourly Total	106	0	0	0	106	0	653	0	0	653	0	544	0	2	544	1303
2:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	372	0	0	0	372	0	2109	0	1	2109	0	1708	0	4	1708	4189
Approach %	100.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	8.9	0.0	0.0	-	8.9	0.0	50.3	0.0	-	50.3	0.0	40.8	0.0	-	40.8	-
Lights	367	0	0	-	367	0	2092	0	-	2092	0	1702	0	-	1702	4161
% Lights	98.7	-	-	-	98.7	-	99.2	-	-	99.2	-	99.6	-	-	99.6	99.3
Buses	3	0	0	-	3	0	7	0	-	7	0	3	0	-	3	13
% Buses	0.8	-	-	-	0.8	-	0.3	-	-	0.3	-	0.2	-	-	0.2	0.3
Trucks	2	0	0	-	2	0	10	0	-	10	0	3	0	-	3	15
% Trucks	0.5	-	-	-	0.5	-	0.5	-	-	0.5	-	0.2	-	-	0.2	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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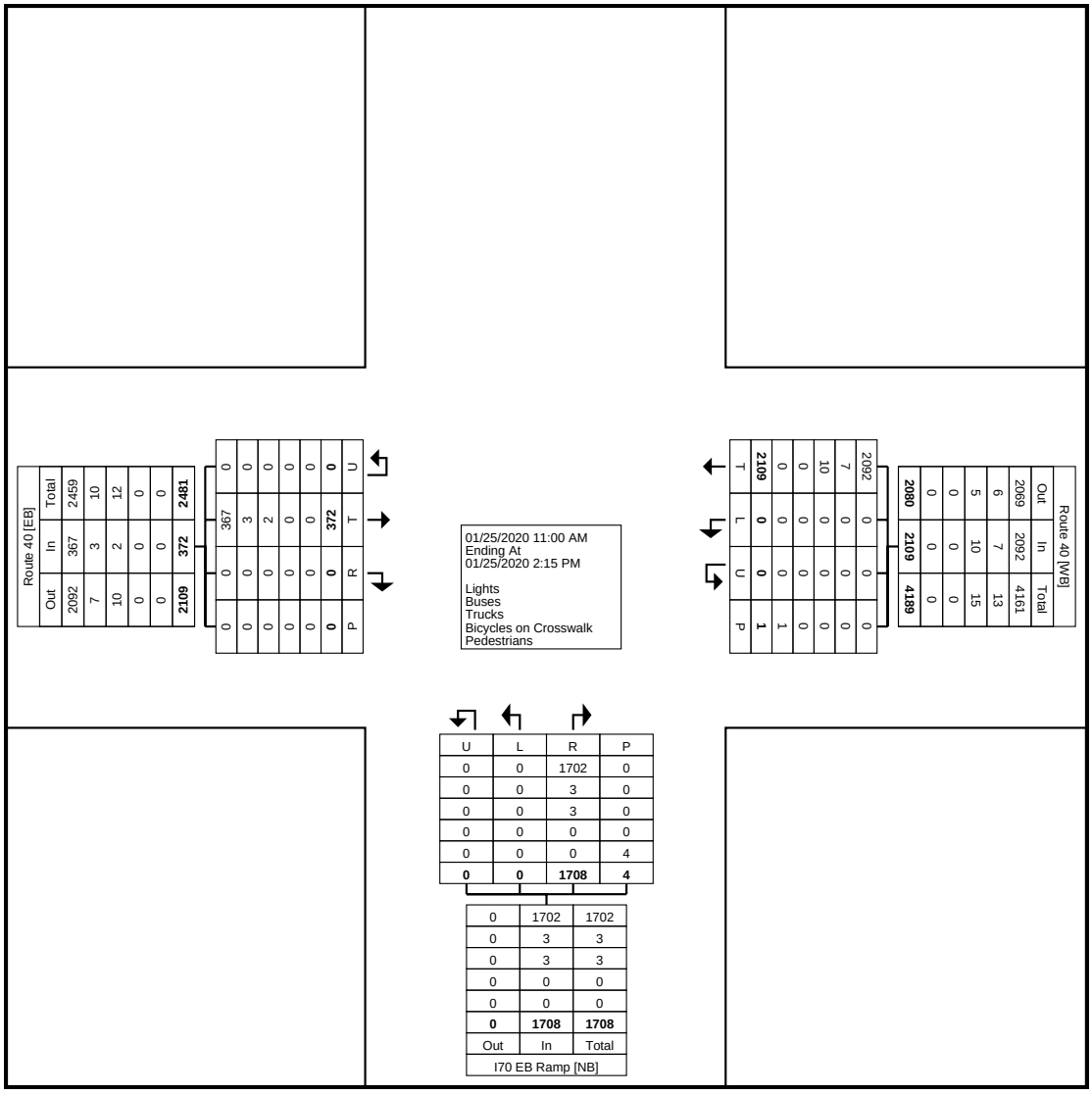
Wheeling, WV
Route 40 & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp SAT
Site Code:
Start Date: 01/25/2020



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Wheeling, WV
Route 40 & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:15 AM)

Start Time	Route 40 Eastbound					Route 40 Westbound					I70 EB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:15 AM	32	0	0	0	32	0	182	0	0	182	0	136	0	0	136	350
11:30 AM	47	0	0	0	47	0	197	0	0	197	0	150	0	0	150	394
11:45 AM	26	0	0	0	26	0	181	0	0	181	0	164	0	2	164	371
12:00 PM	43	0	0	0	43	0	191	0	0	191	0	175	0	0	175	409
Total	148	0	0	0	148	0	751	0	0	751	0	625	0	2	625	1524
Approach %	100.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	9.7	0.0	0.0	-	9.7	0.0	49.3	0.0	-	49.3	0.0	41.0	0.0	-	41.0	-
PHF	0.787	0.000	0.000	-	0.787	0.000	0.953	0.000	-	0.953	0.000	0.893	0.000	-	0.893	0.932
Lights	147	0	0	-	147	0	746	0	-	746	0	622	0	-	622	1515
% Lights	99.3	-	-	-	99.3	-	99.3	-	-	99.3	-	99.5	-	-	99.5	99.4
Buses	0	0	0	-	0	0	2	0	-	2	0	1	0	-	1	3
% Buses	0.0	-	-	-	0.0	-	0.3	-	-	0.3	-	0.2	-	-	0.2	0.2
Trucks	1	0	0	-	1	0	3	0	-	3	0	2	0	-	2	6
% Trucks	0.7	-	-	-	0.7	-	0.4	-	-	0.4	-	0.3	-	-	0.3	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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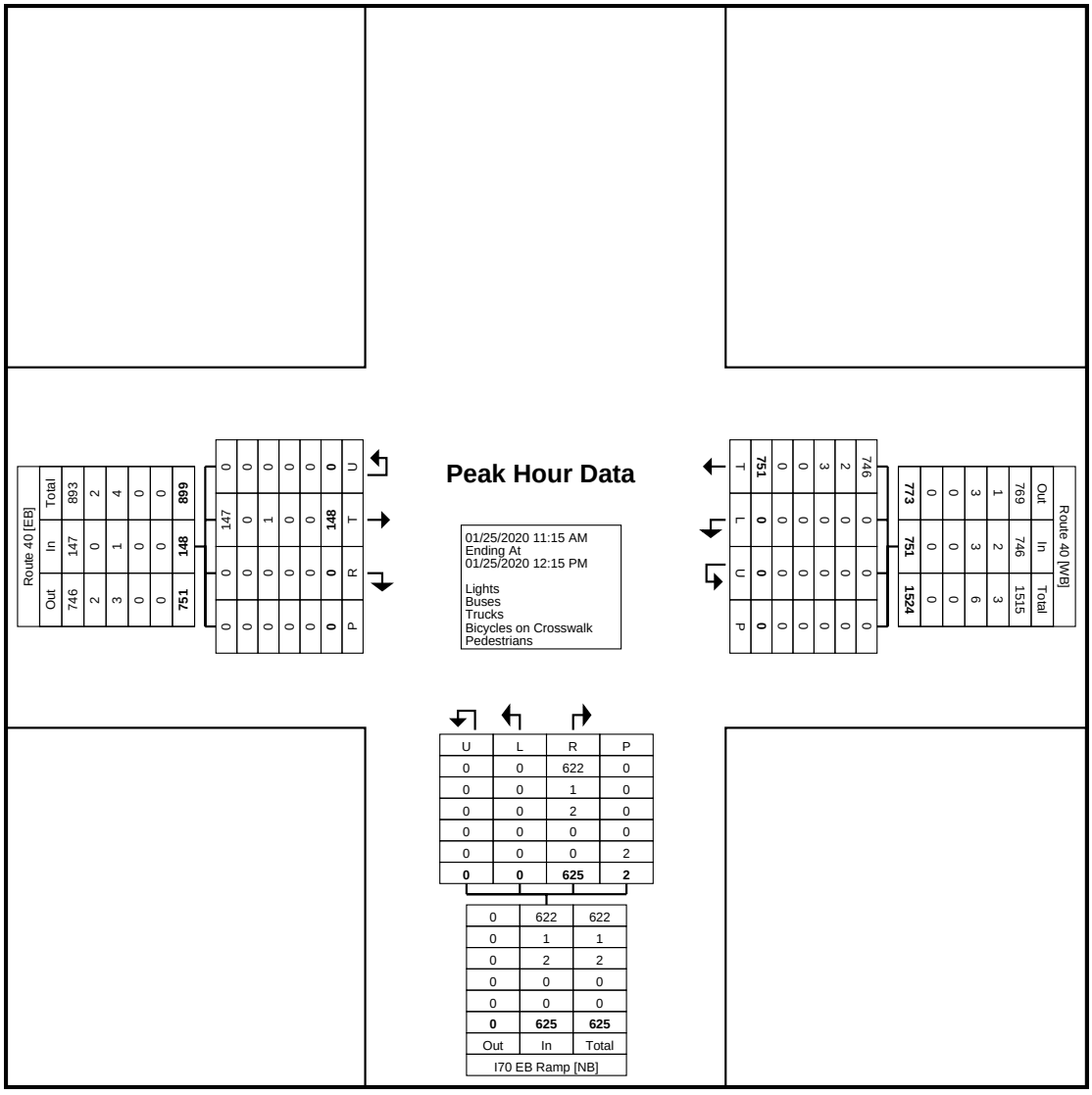
Wheeling, WV
Route 40 & I70 EB Ramp
Saturday, January 25, 2020
Location: 40.075007, -80.700807

Count Name: Route 40/I70 EB Ramp SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:15 AM)

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Wheeling, WV
Route 40 & MtDeChantal Rd
Friday, January 24, 2020
Location: 40.074957, -80.701457

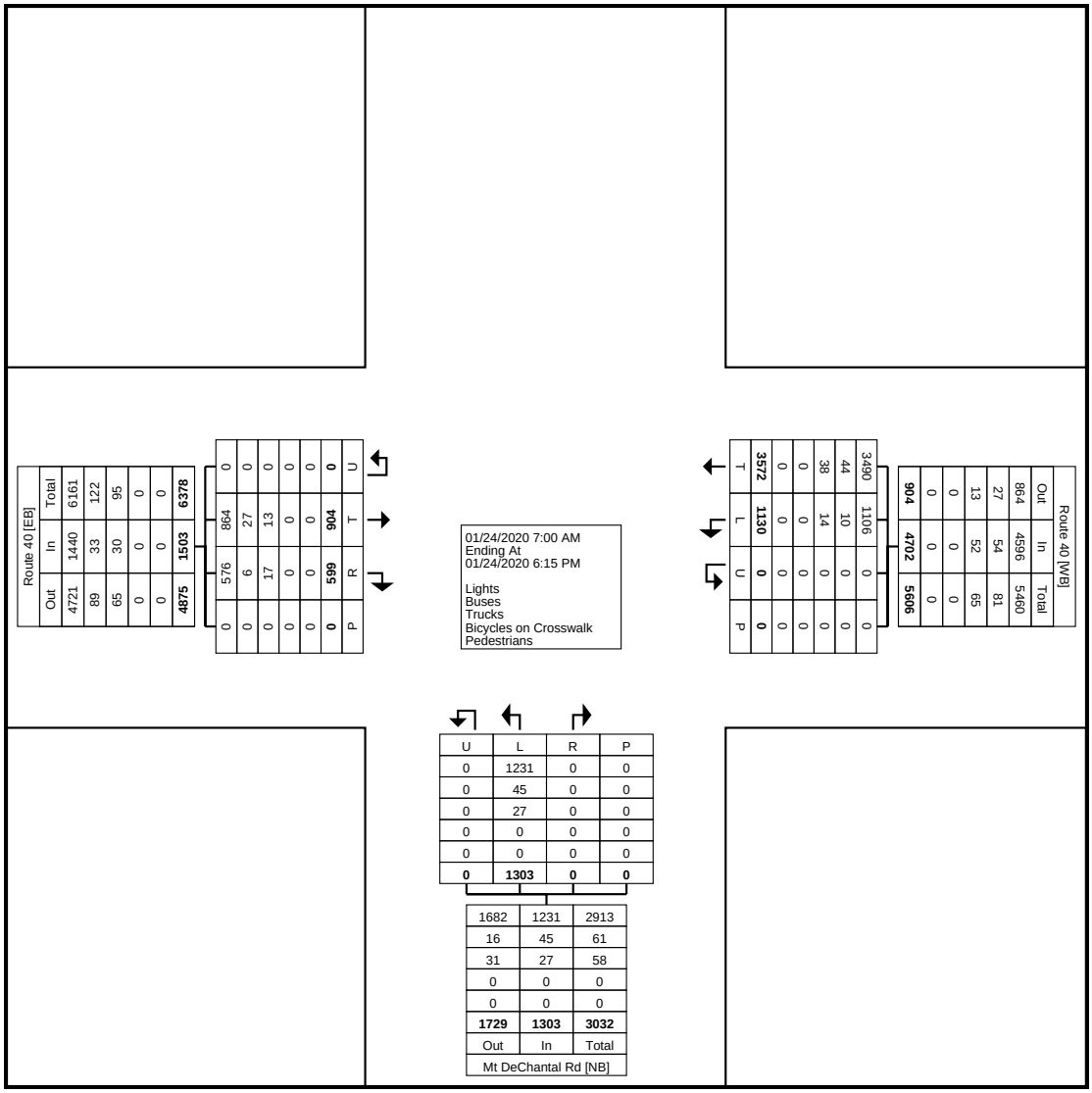
Count Name: Route 40/Mt DeChantal Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Route 40 Eastbound						Route 40 Westbound					Mt DeChantal Rd Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:00 AM	30	9	4	0	0	43	30	113	0	0	143	18	0	0	0	0	18	204
7:15 AM	35	10	7	0	0	52	46	155	0	0	201	27	0	0	0	0	27	280
7:30 AM	30	18	10	0	0	58	66	186	0	0	252	40	0	0	0	0	40	350
7:45 AM	51	25	7	0	0	83	66	207	0	0	273	58	0	0	0	0	58	414
Hourly Total	146	62	28	0	0	236	208	661	0	0	869	143	0	0	0	0	143	1248
8:00 AM	28	14	11	0	0	53	64	195	0	0	259	53	0	0	0	0	53	365
8:15 AM	25	19	10	0	0	54	63	172	0	0	235	65	0	0	0	0	65	354
8:30 AM	24	16	13	0	0	53	56	149	0	0	205	59	0	0	0	0	59	317
8:45 AM	45	17	10	0	0	72	53	182	0	0	235	70	0	0	0	0	70	377
Hourly Total	122	66	44	0	0	232	236	698	0	0	934	247	0	0	0	0	247	1413
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	49	29	5	0	0	83	65	211	0	0	276	61	0	0	0	0	61	420
3:15 PM	55	28	12	0	0	95	77	255	0	0	332	72	0	0	0	0	72	499
3:30 PM	52	17	7	0	0	76	75	203	0	0	278	87	0	0	0	0	87	441
3:45 PM	46	24	12	0	0	82	66	193	0	0	259	78	0	0	0	0	78	419
Hourly Total	202	98	36	0	0	336	283	862	0	0	1145	298	0	0	0	0	298	1779
4:00 PM	45	22	12	0	0	79	48	171	0	0	219	90	0	0	0	0	90	388
4:15 PM	49	35	4	0	0	88	52	156	0	0	208	83	0	0	0	0	83	379
4:30 PM	59	24	8	0	0	91	49	164	0	0	213	96	0	0	0	0	96	400
4:45 PM	47	33	8	0	0	88	54	173	0	0	227	70	0	0	0	0	70	385
Hourly Total	200	114	32	0	0	346	203	664	0	0	867	339	0	0	0	0	339	1552
5:00 PM	80	30	9	0	0	119	46	192	0	0	238	57	0	0	0	0	57	414
5:15 PM	71	18	11	0	0	100	47	197	0	0	244	90	0	0	0	0	90	434
5:30 PM	44	16	10	0	0	70	54	149	0	0	203	66	0	0	0	0	66	339
5:45 PM	39	16	9	0	0	64	51	148	0	0	199	63	0	0	0	0	63	326
Hourly Total	234	80	39	0	0	353	198	686	0	0	884	276	0	0	0	0	276	1513
6:00 PM	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	3
Grand Total	904	420	179	0	0	1503	1130	3572	0	0	4702	1303	0	0	0	0	1303	7508
Approach %	60.1	27.9	11.9	0.0	-	-	24.0	76.0	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	12.0	5.6	2.4	0.0	-	20.0	15.1	47.6	0.0	-	62.6	17.4	0.0	0.0	0.0	-	17.4	-
Lights	864	405	171	0	-	1440	1106	3490	0	-	4596	1231	0	0	0	-	1231	7267
% Lights	95.6	96.4	95.5	-	-	95.8	97.9	97.7	-	-	97.7	94.5	-	-	-	-	94.5	96.8
Buses	27	3	3	0	-	33	10	44	0	-	54	45	0	0	0	-	45	132
% Buses	3.0	0.7	1.7	-	-	2.2	0.9	1.2	-	-	1.1	3.5	-	-	-	-	3.5	1.8
Trucks	13	12	5	0	-	30	14	38	0	-	52	27	0	0	0	-	27	109
% Trucks	1.4	2.9	2.8	-	-	2.0	1.2	1.1	-	-	1.1	2.1	-	-	-	-	2.1	1.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Wheeling, WV
Route 40 & MtDeChantal Rd
Friday, January 24, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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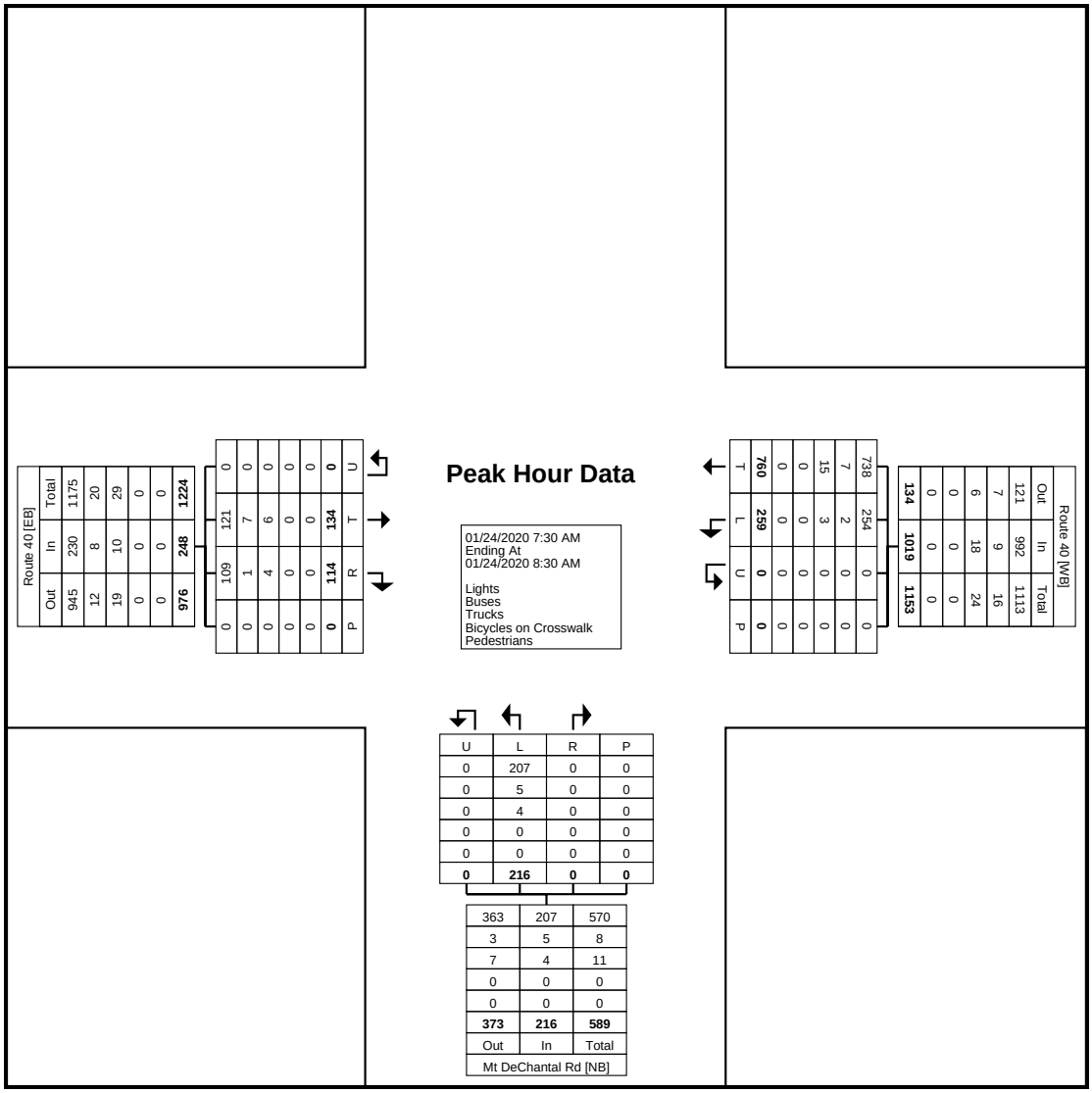
Wheeling, WV
Route 40 & MtDeChantal Rd
Friday, January 24, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Route 40 Eastbound						Route 40 Westbound					Mt DeChantal Rd Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:30 AM	30	18	10	0	0	58	66	186	0	0	252	40	0	0	0	0	40	350
7:45 AM	51	25	7	0	0	83	66	207	0	0	273	58	0	0	0	0	58	414
8:00 AM	28	14	11	0	0	53	64	195	0	0	259	53	0	0	0	0	53	365
8:15 AM	25	19	10	0	0	54	63	172	0	0	235	65	0	0	0	0	65	354
Total	134	76	38	0	0	248	259	760	0	0	1019	216	0	0	0	0	216	1483
Approach %	54.0	30.6	15.3	0.0	-	-	25.4	74.6	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	9.0	5.1	2.6	0.0	-	16.7	17.5	51.2	0.0	-	68.7	14.6	0.0	0.0	0.0	-	14.6	-
PHF	0.657	0.760	0.864	0.000	-	0.747	0.981	0.918	0.000	-	0.933	0.831	0.000	0.000	0.000	-	0.831	0.896
Lights	121	75	34	0	-	230	254	738	0	-	992	207	0	0	0	-	207	1429
% Lights	90.3	98.7	89.5	-	-	92.7	98.1	97.1	-	-	97.4	95.8	-	-	-	-	95.8	96.4
Buses	7	0	1	0	-	8	2	7	0	-	9	5	0	0	0	-	5	22
% Buses	5.2	0.0	2.6	-	-	3.2	0.8	0.9	-	-	0.9	2.3	-	-	-	-	2.3	1.5
Trucks	6	1	3	0	-	10	3	15	0	-	18	4	0	0	0	-	4	32
% Trucks	4.5	1.3	7.9	-	-	4.0	1.2	2.0	-	-	1.8	1.9	-	-	-	-	1.9	2.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (7:30 AM)

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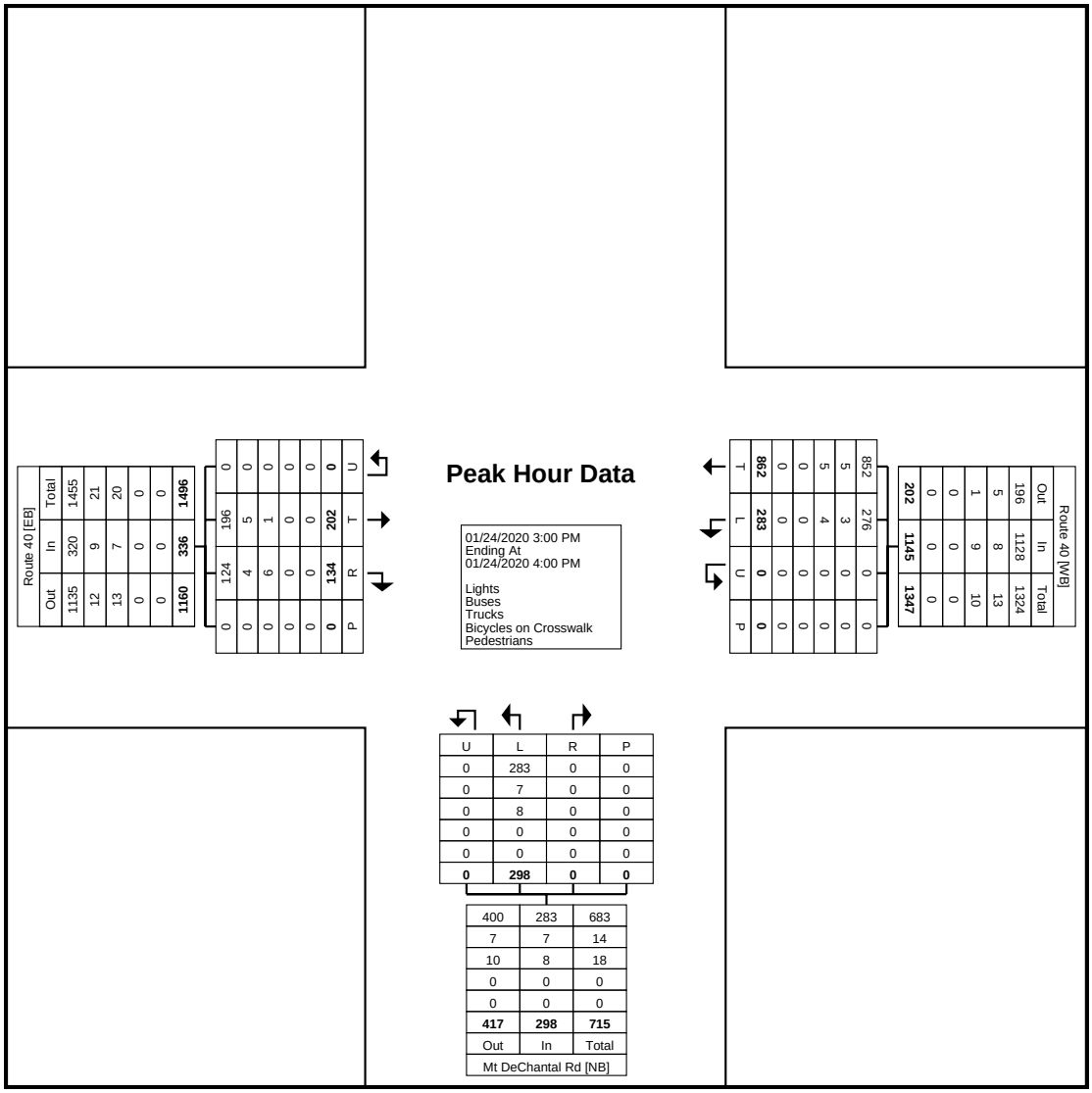
Wheeling, WV
Route 40 & MtDeChantal Rd
Friday, January 24, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (3:00 PM)

Start Time	Route 40 Eastbound						Route 40 Westbound					Mt DeChantal Rd Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
3:00 PM	49	29	5	0	0	83	65	211	0	0	276	61	0	0	0	0	61	420
3:15 PM	55	28	12	0	0	95	77	255	0	0	332	72	0	0	0	0	72	499
3:30 PM	52	17	7	0	0	76	75	203	0	0	278	87	0	0	0	0	87	441
3:45 PM	46	24	12	0	0	82	66	193	0	0	259	78	0	0	0	0	78	419
Total	202	98	36	0	0	336	283	862	0	0	1145	298	0	0	0	0	298	1779
Approach %	60.1	29.2	10.7	0.0	-	-	24.7	75.3	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	11.4	5.5	2.0	0.0	-	18.9	15.9	48.5	0.0	-	64.4	16.8	0.0	0.0	0.0	-	16.8	-
PHF	0.918	0.845	0.750	0.000	-	0.884	0.919	0.845	0.000	-	0.862	0.856	0.000	0.000	0.000	-	0.856	0.891
Lights	196	89	35	0	-	320	276	852	0	-	1128	283	0	0	0	-	283	1731
% Lights	97.0	90.8	97.2	-	-	95.2	97.5	98.8	-	-	98.5	95.0	-	-	-	-	95.0	97.3
Buses	5	3	1	0	-	9	3	5	0	-	8	7	0	0	0	-	7	24
% Buses	2.5	3.1	2.8	-	-	2.7	1.1	0.6	-	-	0.7	2.3	-	-	-	-	2.3	1.3
Trucks	1	6	0	0	-	7	4	5	0	-	9	8	0	0	0	-	8	24
% Trucks	0.5	6.1	0.0	-	-	2.1	1.4	0.6	-	-	0.8	2.7	-	-	-	-	2.7	1.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (3:00 PM)

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Wheeling, WV
Rt 40 & Mt DeChantel Rd
Saturday, January 25, 2020
Location: 40.074957, -80.701457

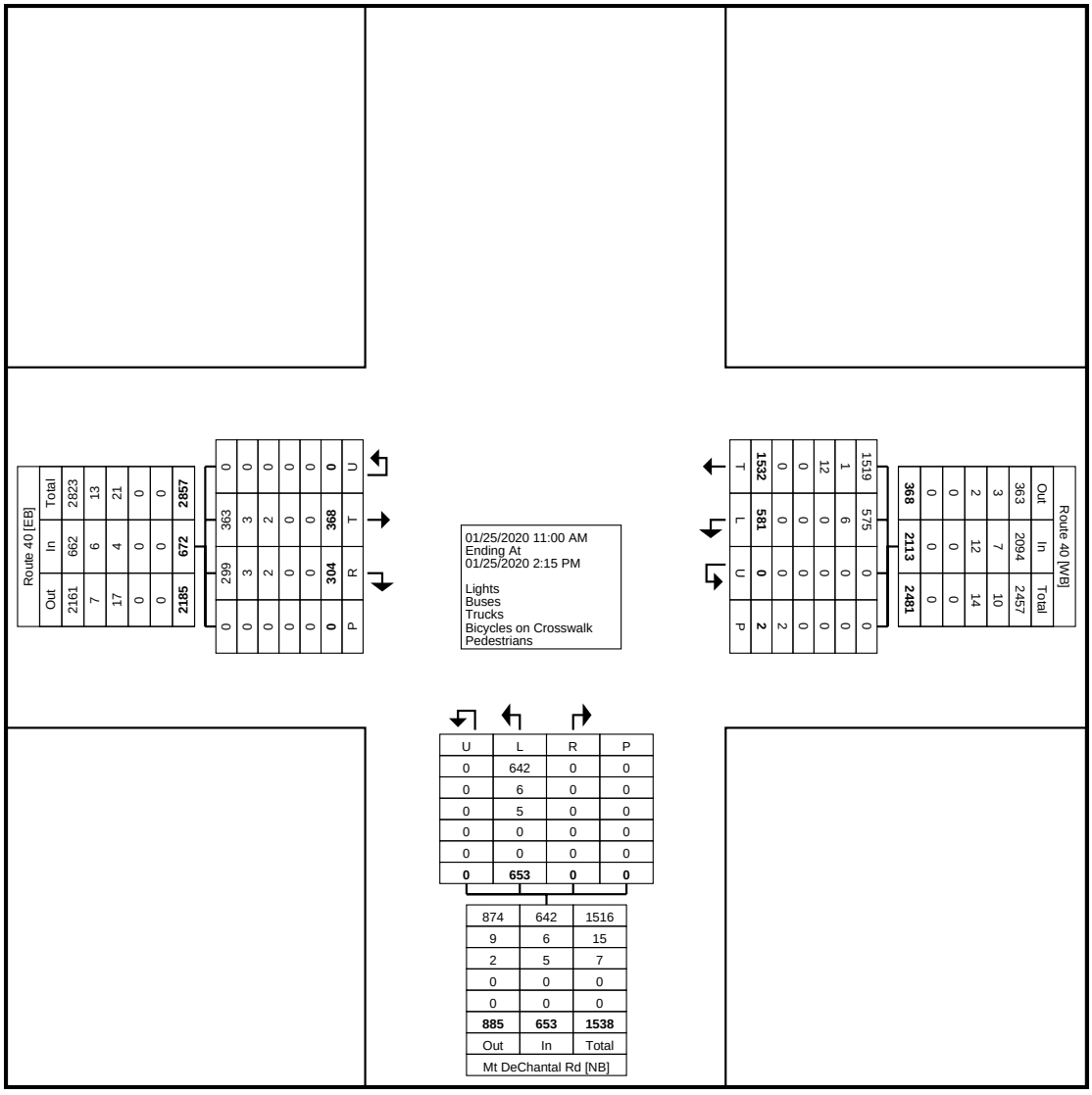
Count Name: Route 40/Mt DeChantal Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Route 40 Eastbound						Route 40 Westbound					Mt DeChantal Rd Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
11:00 AM	27	25	4	0	0	56	46	140	0	0	186	55	0	0	0	0	55	297
11:15 AM	33	12	1	0	0	46	41	138	0	0	179	50	0	0	0	0	50	275
11:30 AM	44	16	7	0	0	67	63	133	0	0	196	54	0	0	0	0	54	317
11:45 AM	23	18	14	0	0	55	56	130	0	0	186	77	0	0	0	0	77	318
Hourly Total	127	71	26	0	0	224	206	541	0	0	747	236	0	0	0	0	236	1207
12:00 PM	45	28	5	0	0	78	47	129	0	0	176	78	0	0	0	0	78	332
12:15 PM	35	25	6	0	0	66	46	121	0	0	167	52	0	0	0	0	52	285
12:30 PM	28	23	5	0	0	56	58	135	0	0	193	48	0	0	0	0	48	297
12:45 PM	30	11	8	0	0	49	46	132	0	0	178	45	0	0	0	0	45	272
Hourly Total	138	87	24	0	0	249	197	517	0	0	714	223	0	0	0	0	223	1186
1:00 PM	28	19	10	0	0	57	48	133	0	0	181	56	0	0	0	0	56	294
1:15 PM	17	20	5	0	0	42	52	109	0	0	161	46	0	0	0	0	46	249
1:30 PM	30	19	5	0	0	54	33	114	0	1	147	45	0	0	0	0	45	246
1:45 PM	28	9	9	0	0	46	45	118	0	1	163	47	0	0	0	0	47	256
Hourly Total	103	67	29	0	0	199	178	474	0	2	652	194	0	0	0	0	194	1045
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	368	225	79	0	0	672	581	1532	0	2	2113	653	0	0	0	0	653	3438
Approach %	54.8	33.5	11.8	0.0	-	-	27.5	72.5	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	10.7	6.5	2.3	0.0	-	19.5	16.9	44.6	0.0	-	61.5	19.0	0.0	0.0	0.0	-	19.0	-
Lights	363	223	76	0	-	662	575	1519	0	-	2094	642	0	0	0	-	642	3398
% Lights	98.6	99.1	96.2	-	-	98.5	99.0	99.2	-	-	99.1	98.3	-	-	-	-	98.3	98.8
Buses	3	1	2	0	-	6	6	1	0	-	7	6	0	0	0	-	6	19
% Buses	0.8	0.4	2.5	-	-	0.9	1.0	0.1	-	-	0.3	0.9	-	-	-	-	0.9	0.6
Trucks	2	1	1	0	-	4	0	12	0	-	12	5	0	0	0	-	5	21
% Trucks	0.5	0.4	1.3	-	-	0.6	0.0	0.8	-	-	0.6	0.8	-	-	-	-	0.8	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Wheeling, WV
Rt 40 & Mt DeChantel Rd
Saturday, January 25, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd SAT
Site Code:
Start Date: 01/25/2020



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Wheeling, WV
Rt 40 & Mt DeChantel Rd
Saturday, January 25, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Route 40 Eastbound						Route 40 Westbound					Mt DeChantal Rd Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
11:30 AM	44	16	7	0	0	67	63	133	0	0	196	54	0	0	0	0	54	317
11:45 AM	23	18	14	0	0	55	56	130	0	0	186	77	0	0	0	0	77	318
12:00 PM	45	28	5	0	0	78	47	129	0	0	176	78	0	0	0	0	78	332
12:15 PM	35	25	6	0	0	66	46	121	0	0	167	52	0	0	0	0	52	285
Total	147	87	32	0	0	266	212	513	0	0	725	261	0	0	0	0	261	1252
Approach %	55.3	32.7	12.0	0.0	-	-	29.2	70.8	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	11.7	6.9	2.6	0.0	-	21.2	16.9	41.0	0.0	-	57.9	20.8	0.0	0.0	0.0	-	20.8	-
PHF	0.817	0.777	0.571	0.000	-	0.853	0.841	0.964	0.000	-	0.925	0.837	0.000	0.000	0.000	-	0.837	0.943
Lights	145	86	30	0	-	261	210	508	0	-	718	259	0	0	0	-	259	1238
% Lights	98.6	98.9	93.8	-	-	98.1	99.1	99.0	-	-	99.0	99.2	-	-	-	-	99.2	98.9
Buses	1	0	1	0	-	2	2	0	0	-	2	2	0	0	0	-	2	6
% Buses	0.7	0.0	3.1	-	-	0.8	0.9	0.0	-	-	0.3	0.8	-	-	-	-	0.8	0.5
Trucks	1	1	1	0	-	3	0	5	0	-	5	0	0	0	0	-	0	8
% Trucks	0.7	1.1	3.1	-	-	1.1	0.0	1.0	-	-	0.7	0.0	-	-	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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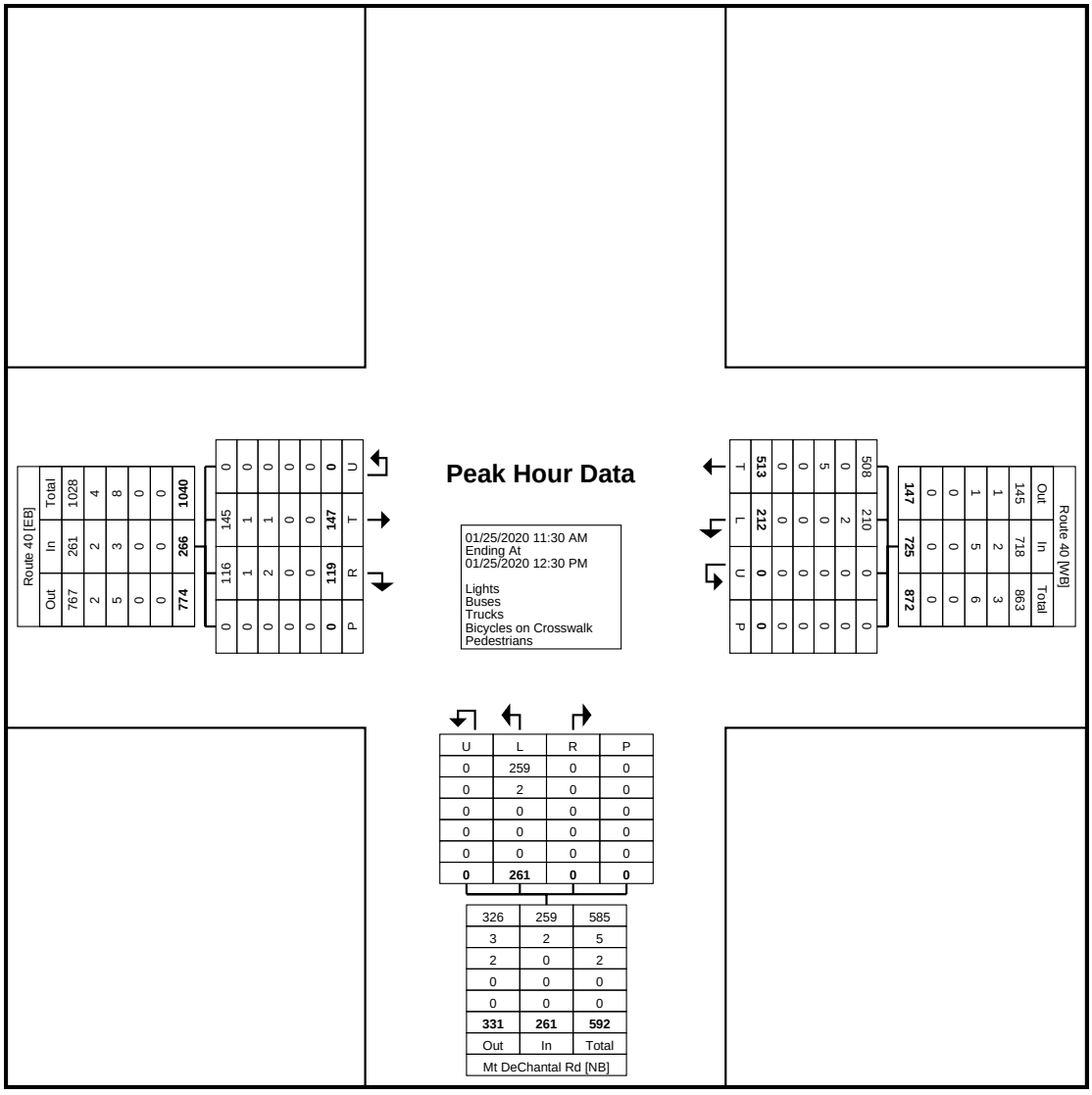
Wheeling, WV
Rt 40 & Mt DeChantel Rd
Saturday, January 25, 2020
Location: 40.074957, -80.701457

Count Name: Route 40/Mt DeChantal Rd SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:30 AM)

Wheeling, WV
EB Ramps/Krogers & Mt DeChantel
Friday, January 24, 2020
Location: 40.073989, -80.700647

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Count Name: EB Ramps/Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020
Page No: 1

Turning Movement Data

Start Time	EB Ramp Eastbound						Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	1	4	6	0	0	11	3	31	0	0	0	34	0	32	28	0	0	60	105
7:15 AM	0	0	0	0	0	0	0	2	4	0	0	6	5	49	0	0	0	54	0	33	40	0	0	73	133
7:30 AM	0	0	0	0	0	0	1	3	14	0	0	18	8	71	0	0	0	79	0	49	51	0	0	100	197
7:45 AM	0	0	0	0	0	0	1	0	19	0	2	20	9	87	0	0	0	96	0	74	60	0	0	134	250
Hourly Total	0	0	0	0	0	0	3	9	43	0	2	55	25	238	0	0	0	263	0	188	179	0	0	367	685
8:00 AM	0	0	0	0	0	0	1	1	30	0	0	32	10	72	0	0	0	82	0	53	59	0	0	112	226
8:15 AM	0	0	0	0	0	0	1	5	20	0	0	26	10	88	0	0	0	98	0	43	57	0	0	100	224
8:30 AM	0	0	0	0	0	0	1	6	21	0	0	28	8	59	0	0	0	67	0	46	55	0	1	101	196
8:45 AM	0	0	0	0	0	0	1	3	24	0	2	28	6	80	0	0	0	86	0	35	60	0	0	95	209
Hourly Total	0	0	0	0	0	0	4	15	95	0	2	114	34	299	0	0	0	333	0	177	231	0	1	408	855
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	2	6	43	0	0	51	9	72	0	0	0	81	0	68	60	0	0	128	260
3:15 PM	0	0	0	0	0	0	1	6	41	0	1	48	12	97	0	0	0	109	0	73	61	0	1	134	291
3:30 PM	0	0	0	0	0	0	0	5	53	0	1	58	17	87	0	0	0	104	0	68	73	0	0	141	303
3:45 PM	0	0	0	0	0	0	1	7	42	0	0	50	16	95	0	0	0	111	0	80	41	0	0	121	282
Hourly Total	0	0	0	0	0	0	4	24	179	0	2	207	54	351	0	0	0	405	0	289	235	0	1	524	1136
4:00 PM	0	0	0	0	0	0	0	3	43	0	0	46	18	100	0	0	0	118	0	56	54	0	5	110	274
4:15 PM	0	0	0	0	0	0	0	6	44	0	1	50	9	98	0	0	0	107	0	60	53	0	0	113	270
4:30 PM	0	0	0	0	1	0	1	8	43	0	0	52	16	107	0	0	1	123	0	77	44	0	0	121	296
4:45 PM	0	0	0	0	0	0	1	10	45	0	0	56	13	91	0	0	0	104	0	71	65	0	0	136	296
Hourly Total	0	0	0	0	1	0	2	27	175	0	1	204	56	396	0	0	1	452	0	264	216	0	5	480	1136
5:00 PM	0	0	0	0	0	0	2	10	54	0	0	66	15	73	0	0	0	88	0	66	40	0	0	106	260
5:15 PM	0	0	0	0	0	0	2	2	62	0	2	66	7	73	0	0	0	80	0	52	44	0	1	96	242
5:30 PM	0	0	0	0	0	0	1	2	42	0	0	45	7	78	0	0	0	85	0	51	44	0	0	95	225
5:45 PM	0	0	0	0	0	0	3	7	48	0	2	58	8	80	0	0	0	88	0	67	48	0	0	115	261
Hourly Total	0	0	0	0	0	0	8	21	206	0	4	235	37	304	0	0	0	341	0	236	176	0	1	412	988
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	0	21	96	698	0	11	815	206	1588	0	0	1	1794	0	1154	1037	0	8	2191	4800
Approach %	0.0	0.0	0.0	0.0	-	-	2.6	11.8	85.6	0.0	-	-	11.5	88.5	0.0	0.0	-	-	0.0	52.7	47.3	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.4	2.0	14.5	0.0	-	17.0	4.3	33.1	0.0	0.0	-	37.4	0.0	24.0	21.6	0.0	-	45.6	-
Lights	0	0	0	0	-	0	21	96	691	0	-	808	205	1508	0	0	-	1713	0	1135	1000	0	-	2135	4656
% Lights	-	-	-	-	-	-	100.0	100.0	99.0	-	-	99.1	99.5	95.0	-	-	-	95.5	-	98.4	96.4	-	-	97.4	97.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	1	48	0	0	-	49	0	2	15	0	-	17	66
% Buses	-	-	-	-	-	-	0.0	0.0	0.0	-	-	0.0	0.5	3.0	-	-	-	2.7	-	0.2	1.4	-	-	0.8	1.4
Trucks	0	0	0	0	-	0	0	0	7	0	-	7	0	32	0	0	-	32	0	17	22	0	-	39	78
% Trucks	-	-	-	-	-	-	0.0	0.0	1.0	-	-	0.9	0.0	2.0	-	-	-	1.8	-	1.5	2.1	-	-	1.8	1.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	11	-	-	-	-	-	1	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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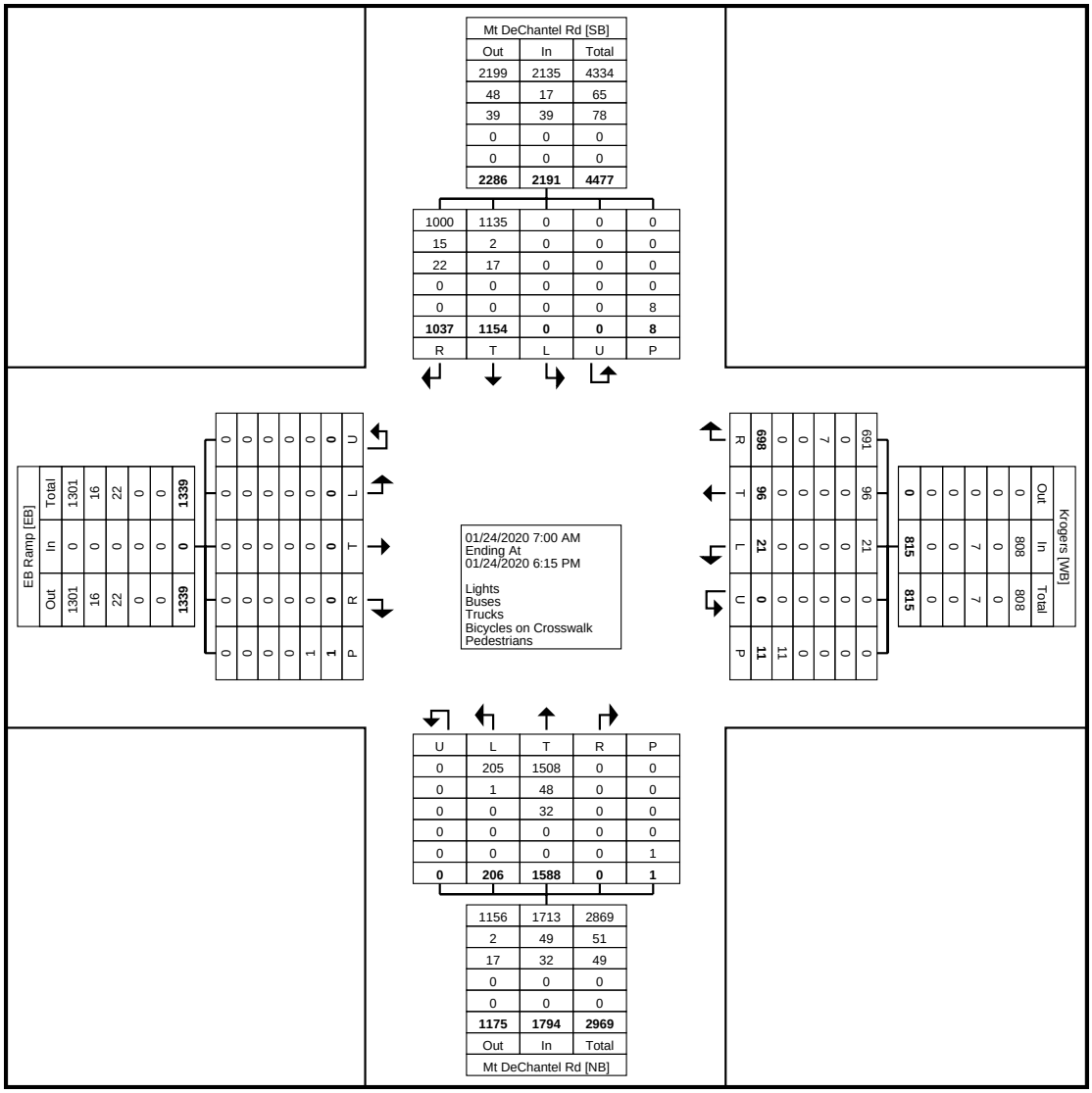
Wheeling, WV
EB Ramps/Krogers & Mt DeChantel
Friday, January 24, 2020
Location: 40.073989, -80.700647

Count Name: EB Ramps/Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

Wheeling, WV
EB Ramps/Krogers & Mt DeChantel
Friday, January 24, 2020
Location: 40.073989, -80.700647

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Turning Movement Peak Hour Data (7:30 AM)

Start Time	EB Ramp Eastbound						Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	0	0	0	0	0	0	1	3	14	0	0	18	8	71	0	0	0	79	0	49	51	0	0	100	197
7:45 AM	0	0	0	0	0	0	1	0	19	0	2	20	9	87	0	0	0	96	0	74	60	0	0	134	250
8:00 AM	0	0	0	0	0	0	1	1	30	0	0	32	10	72	0	0	0	82	0	53	59	0	0	112	226
8:15 AM	0	0	0	0	0	0	1	5	20	0	0	26	10	88	0	0	0	98	0	43	57	0	0	100	224
Total	0	0	0	0	0	0	4	9	83	0	2	96	37	318	0	0	0	355	0	219	227	0	0	446	897
Approach %	0.0	0.0	0.0	0.0	-	-	4.2	9.4	86.5	0.0	-	-	10.4	89.6	0.0	0.0	-	-	0.0	49.1	50.9	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.4	1.0	9.3	0.0	-	10.7	4.1	35.5	0.0	0.0	-	39.6	0.0	24.4	25.3	0.0	-	49.7	-
PHF	0.000	0.000	0.000	0.000	-	0.000	1.000	0.450	0.692	0.000	-	0.750	0.925	0.903	0.000	0.000	-	0.906	0.000	0.740	0.946	0.000	-	0.832	0.897
Lights	0	0	0	0	-	0	4	9	81	0	-	94	36	302	0	0	-	338	0	218	215	0	-	433	865
% Lights	-	-	-	-	-	-	100.0	100.0	97.6	-	-	97.9	97.3	95.0	-	-	-	95.2	-	99.5	94.7	-	-	97.1	96.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	1	6	0	0	-	7	0	0	4	0	-	4	11
% Buses	-	-	-	-	-	-	0.0	0.0	0.0	-	-	0.0	2.7	1.9	-	-	-	2.0	-	0.0	1.8	-	-	0.9	1.2
Trucks	0	0	0	0	-	0	0	0	2	0	-	2	0	10	0	0	-	10	0	1	8	0	-	9	21
% Trucks	-	-	-	-	-	-	0.0	0.0	2.4	-	-	2.1	0.0	3.1	-	-	-	2.8	-	0.5	3.5	-	-	2.0	2.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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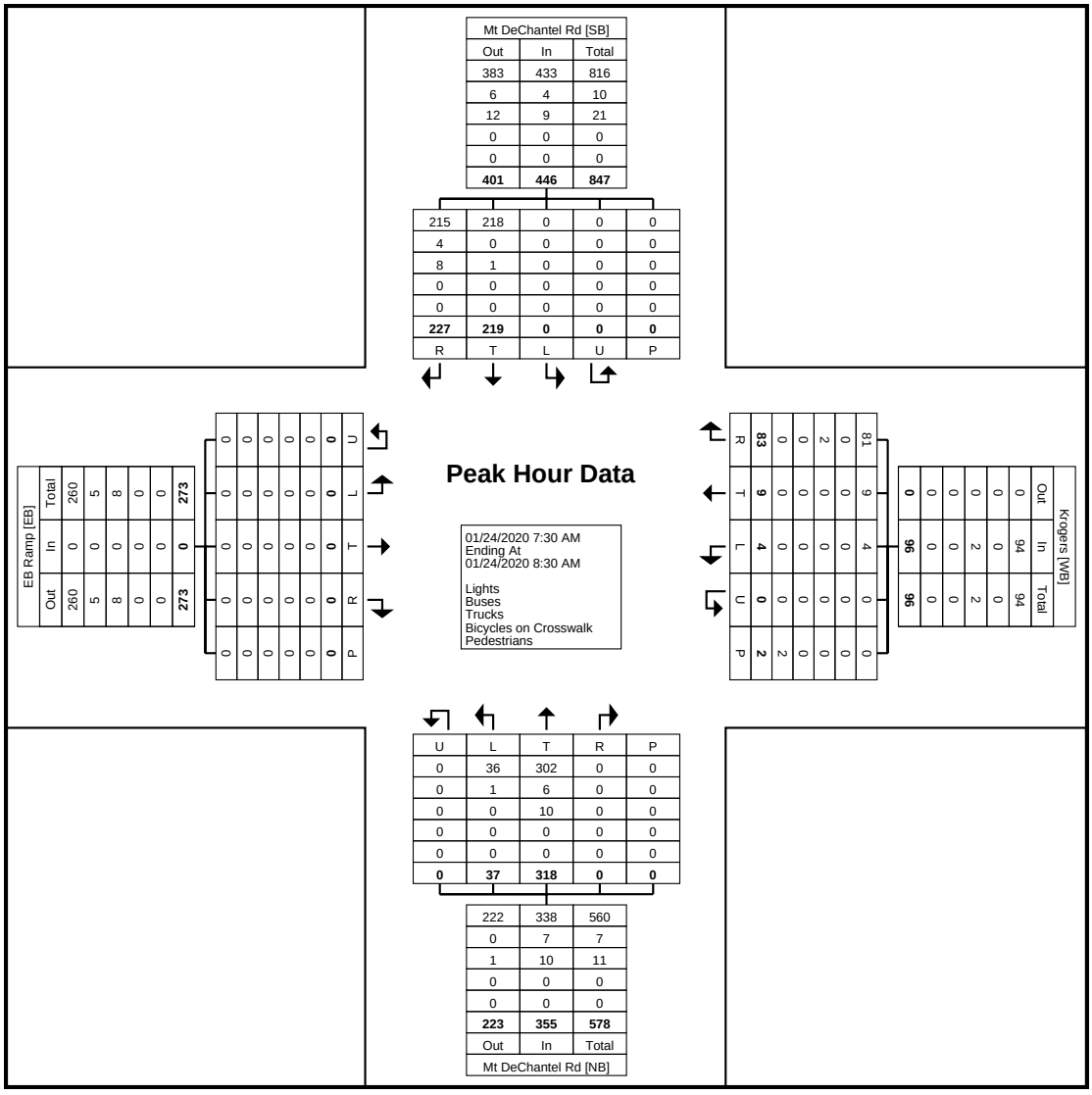

Turning Movement Peak Hour Data Plot (7:30 AM)

Wheeling, WV
EB Ramps/Krogers & Mt DeChantel
Friday, January 24, 2020
Location: 40.073989, -80.700647

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Turning Movement Peak Hour Data (3:15 PM)

Start Time	EB Ramp Eastbound						Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
3:15 PM	0	0	0	0	0	0	1	6	41	0	1	48	12	97	0	0	0	109	0	73	61	0	1	134	291
3:30 PM	0	0	0	0	0	0	0	5	53	0	1	58	17	87	0	0	0	104	0	68	73	0	0	141	303
3:45 PM	0	0	0	0	0	0	1	7	42	0	0	50	16	95	0	0	0	111	0	80	41	0	0	121	282
4:00 PM	0	0	0	0	0	0	0	3	43	0	0	46	18	100	0	0	0	118	0	56	54	0	5	110	274
Total	0	0	0	0	0	0	2	21	179	0	2	202	63	379	0	0	0	442	0	277	229	0	6	506	1150
Approach %	0.0	0.0	0.0	0.0	-	-	1.0	10.4	88.6	0.0	-	-	14.3	85.7	0.0	0.0	-	-	0.0	54.7	45.3	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.2	1.8	15.6	0.0	-	17.6	5.5	33.0	0.0	0.0	-	38.4	0.0	24.1	19.9	0.0	-	44.0	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.500	0.750	0.844	0.000	-	0.871	0.875	0.948	0.000	0.000	-	0.936	0.000	0.866	0.784	0.000	-	0.897	0.949
Lights	0	0	0	0	-	0	2	21	176	0	-	199	63	365	0	0	-	428	0	266	219	0	-	485	1112
% Lights	-	-	-	-	-	-	100.0	100.0	98.3	-	-	98.5	100.0	96.3	-	-	-	96.8	-	96.0	95.6	-	-	95.8	96.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	9	0	0	-	9	0	2	7	0	-	9	18
% Buses	-	-	-	-	-	-	0.0	0.0	0.0	-	-	0.0	0.0	2.4	-	-	-	2.0	-	0.7	3.1	-	-	1.8	1.6
Trucks	0	0	0	0	-	0	0	0	3	0	-	3	0	5	0	0	-	5	0	9	3	0	-	12	20
% Trucks	-	-	-	-	-	-	0.0	0.0	1.7	-	-	1.5	0.0	1.3	-	-	-	1.1	-	3.2	1.3	-	-	2.4	1.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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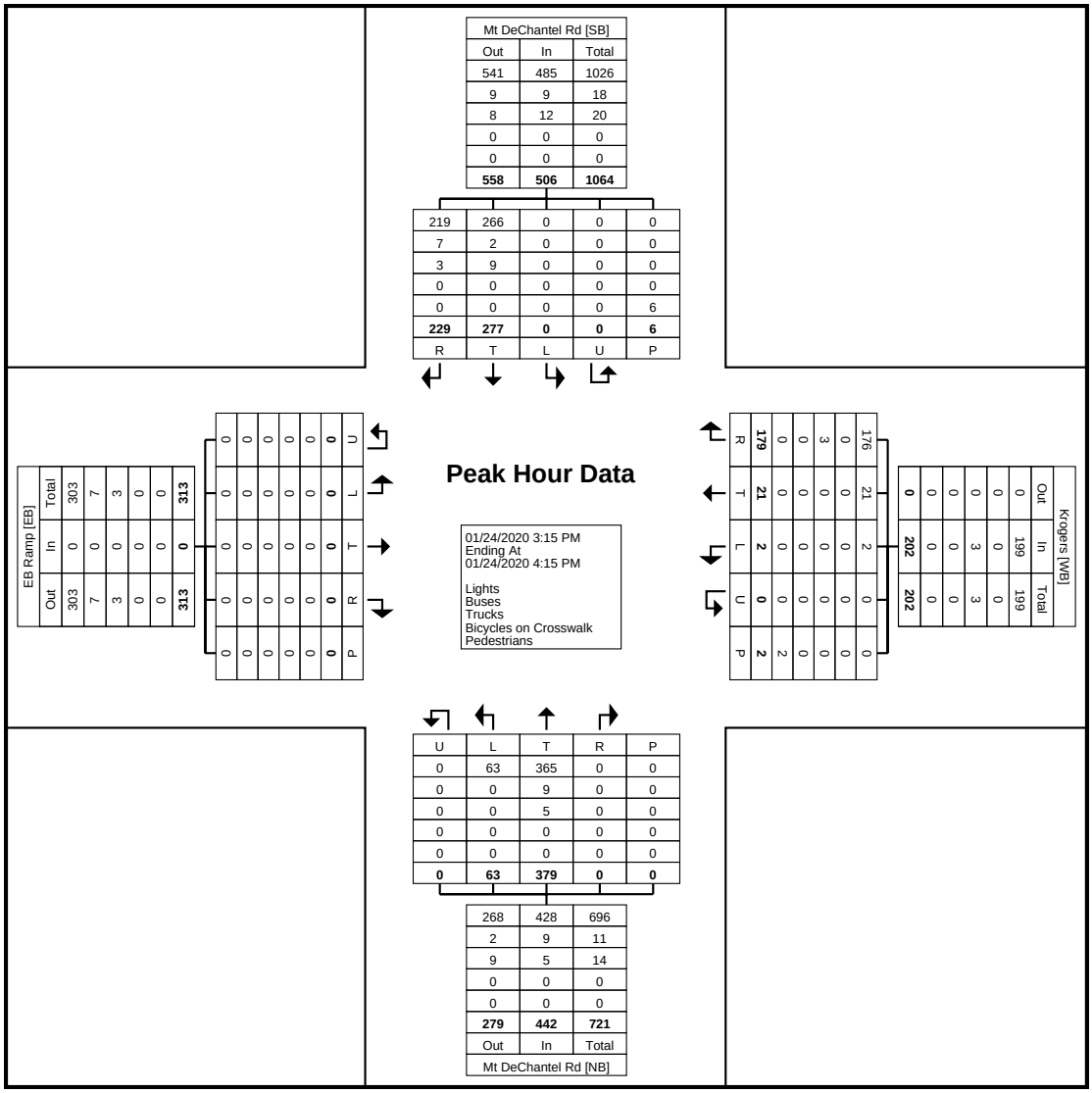
Wheeling, WV
EB Ramps/Krogers & Mt DeChantel
Friday, January 24, 2020
Location: 40.073989, -80.700647

Count Name: EB Ramps/Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (3:15 PM)

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Wheeling, WV
EB Ramps/Krogers & Mt DeChantel Rd
Saturday. January 25, 2020
Location: 40.073989, -80.700647

Count Name: EB Ramps/Mt Dechantel Rd/ Krogers SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	EB Ramps Eastbound						Krogers Westbound						Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	0	0	0	4	35	0	1	39	12	57	0	0	0	69	0	57	48	0	0	105	213
11:15 AM	0	0	0	0	0	0	0	6	43	0	1	49	8	53	0	0	0	61	0	48	33	0	0	81	191
11:30 AM	0	0	0	0	0	0	0	14	30	0	0	44	9	59	0	0	0	68	0	70	44	0	0	114	226
11:45 AM	0	0	0	0	1	0	0	4	42	0	2	46	7	76	0	0	1	83	0	66	46	0	0	112	241
Hourly Total	0	0	0	0	1	0	0	28	150	0	4	178	36	245	0	0	1	281	0	241	171	0	0	412	871
12:00 PM	0	0	0	0	0	0	2	6	46	0	0	54	12	74	0	0	0	86	0	57	45	0	0	102	242
12:15 PM	0	0	0	0	0	0	0	2	48	0	1	50	10	58	0	0	0	68	0	55	41	0	0	96	214
12:30 PM	0	0	0	0	0	0	0	2	39	0	0	41	9	47	0	0	0	56	0	55	51	0	0	106	203
12:45 PM	0	0	0	0	1	0	0	13	38	0	0	51	10	53	0	0	0	63	0	60	30	0	0	90	204
Hourly Total	0	0	0	0	1	0	2	23	171	0	1	196	41	232	0	0	0	273	0	227	167	0	0	394	863
1:00 PM	0	0	0	0	0	0	0	4	40	0	0	44	13	49	0	0	1	62	0	56	47	0	1	103	209
1:15 PM	0	0	0	0	0	0	0	7	38	0	0	45	10	55	0	0	0	65	0	50	43	0	0	93	203
1:30 PM	0	0	0	0	0	0	3	6	51	0	1	60	9	48	0	0	0	57	0	67	29	0	0	96	213
1:45 PM	0	0	0	0	0	0	2	7	34	0	2	43	13	48	0	0	0	61	0	53	41	0	0	94	198
Hourly Total	0	0	0	0	0	0	5	24	163	0	3	192	45	200	0	0	1	245	0	226	160	0	1	386	823
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	2	0	7	75	484	0	8	566	122	677	0	0	2	799	0	694	498	0	1	1192	2557
Approach %	0.0	0.0	0.0	0.0	-	-	1.2	13.3	85.5	0.0	-	-	15.3	84.7	0.0	0.0	-	-	0.0	58.2	41.8	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.3	2.9	18.9	0.0	-	22.1	4.8	26.5	0.0	0.0	-	31.2	0.0	27.1	19.5	0.0	-	46.6	-
Lights	0	0	0	0	-	0	7	74	484	0	-	565	119	664	0	0	-	783	0	686	493	0	-	1179	2527
% Lights	-	-	-	-	-	-	100.0	98.7	100.0	-	-	99.8	97.5	98.1	-	-	-	98.0	-	98.8	99.0	-	-	98.9	98.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	9	0	0	-	9	0	6	3	0	-	9	18
% Buses	-	-	-	-	-	-	0.0	0.0	0.0	-	-	0.0	0.0	1.3	-	-	-	1.1	-	0.9	0.6	-	-	0.8	0.7
Trucks	0	0	0	0	-	0	0	1	0	0	-	1	3	4	0	0	-	7	0	2	2	0	-	4	12
% Trucks	-	-	-	-	-	-	0.0	1.3	0.0	-	-	0.2	2.5	0.6	-	-	-	0.9	-	0.3	0.4	-	-	0.3	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	8	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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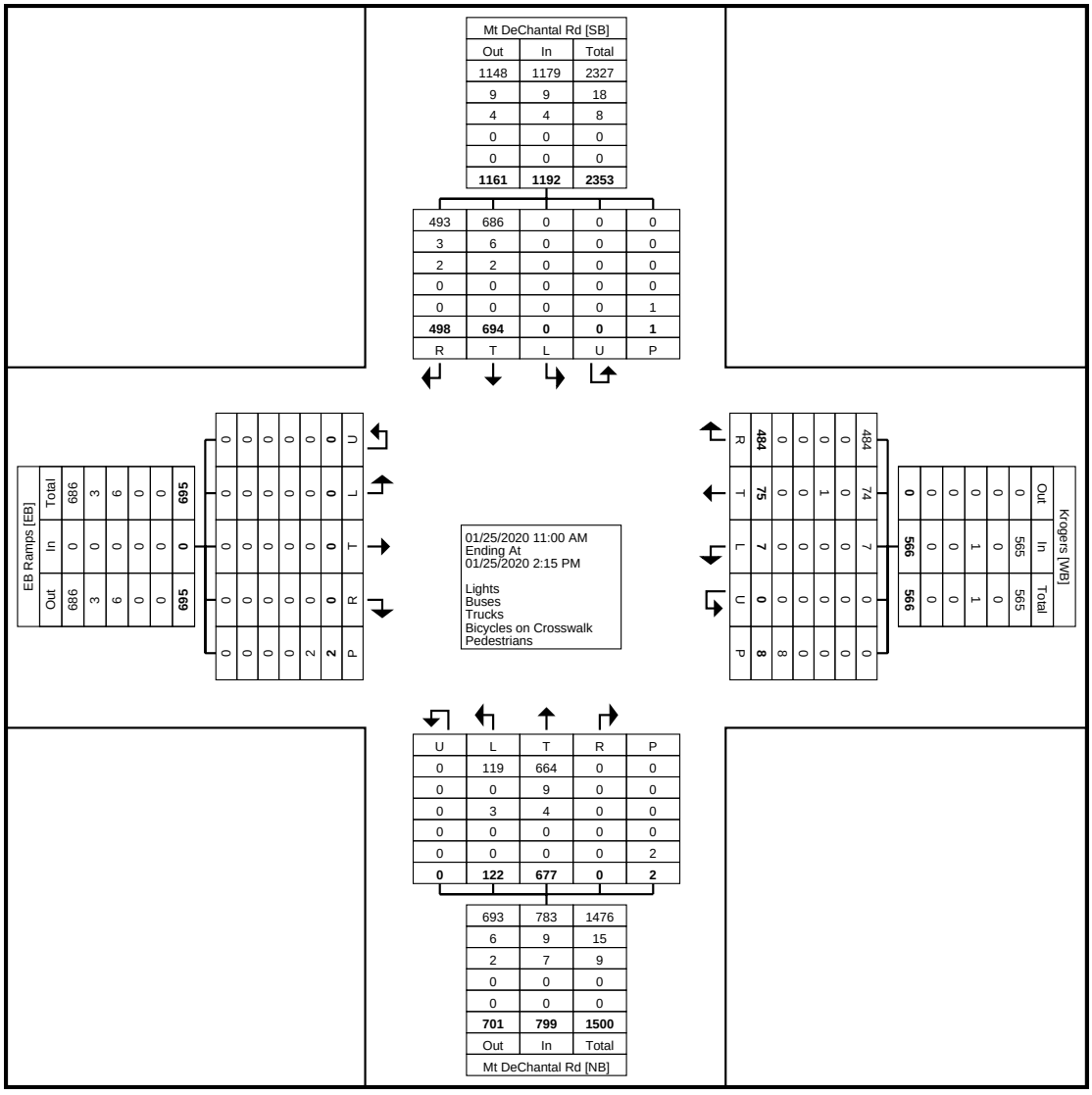

Turning Movement Data Plot

Wheeling, WV
EB Ramps/Krogers & Mt DeChantel Rd
Saturday. January 25, 2020
Location: 40.073989, -80.700647

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Count Name: EB Ramps/Mt Dechantel Rd/ Krogers SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	EB Ramps Eastbound						Krogers Westbound						Mt DeChantal Rd Northbound						Mt DeChantal Rd Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:30 AM	0	0	0	0	0	0	0	14	30	0	0	44	9	59	0	0	0	68	0	70	44	0	0	114	226
11:45 AM	0	0	0	0	1	0	0	4	42	0	2	46	7	76	0	0	1	83	0	66	46	0	0	112	241
12:00 PM	0	0	0	0	0	0	2	6	46	0	0	54	12	74	0	0	0	86	0	57	45	0	0	102	242
12:15 PM	0	0	0	0	0	0	0	2	48	0	1	50	10	58	0	0	0	68	0	55	41	0	0	96	214
Total	0	0	0	0	1	0	2	26	166	0	3	194	38	267	0	0	1	305	0	248	176	0	0	424	923
Approach %	0.0	0.0	0.0	0.0	-	-	1.0	13.4	85.6	0.0	-	-	12.5	87.5	0.0	0.0	-	-	0.0	58.5	41.5	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.2	2.8	18.0	0.0	-	21.0	4.1	28.9	0.0	0.0	-	33.0	0.0	26.9	19.1	0.0	-	45.9	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.250	0.464	0.865	0.000	-	0.898	0.792	0.878	0.000	0.000	-	0.887	0.000	0.886	0.957	0.000	-	0.930	0.954
Lights	0	0	0	0	-	0	2	25	166	0	-	193	36	262	0	0	-	298	0	246	174	0	-	420	911
% Lights	-	-	-	-	-	-	100.0	96.2	100.0	-	-	99.5	94.7	98.1	-	-	-	97.7	-	99.2	98.9	-	-	99.1	98.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	3	0	0	-	3	0	2	0	0	-	2	5
% Buses	-	-	-	-	-	-	0.0	0.0	0.0	-	-	0.0	0.0	1.1	-	-	-	1.0	-	0.8	0.0	-	-	0.5	0.5
Trucks	0	0	0	0	-	0	0	1	0	0	-	1	2	2	0	0	-	4	0	0	2	0	-	2	7
% Trucks	-	-	-	-	-	-	0.0	3.8	0.0	-	-	0.5	5.3	0.7	-	-	-	1.3	-	0.0	1.1	-	-	0.5	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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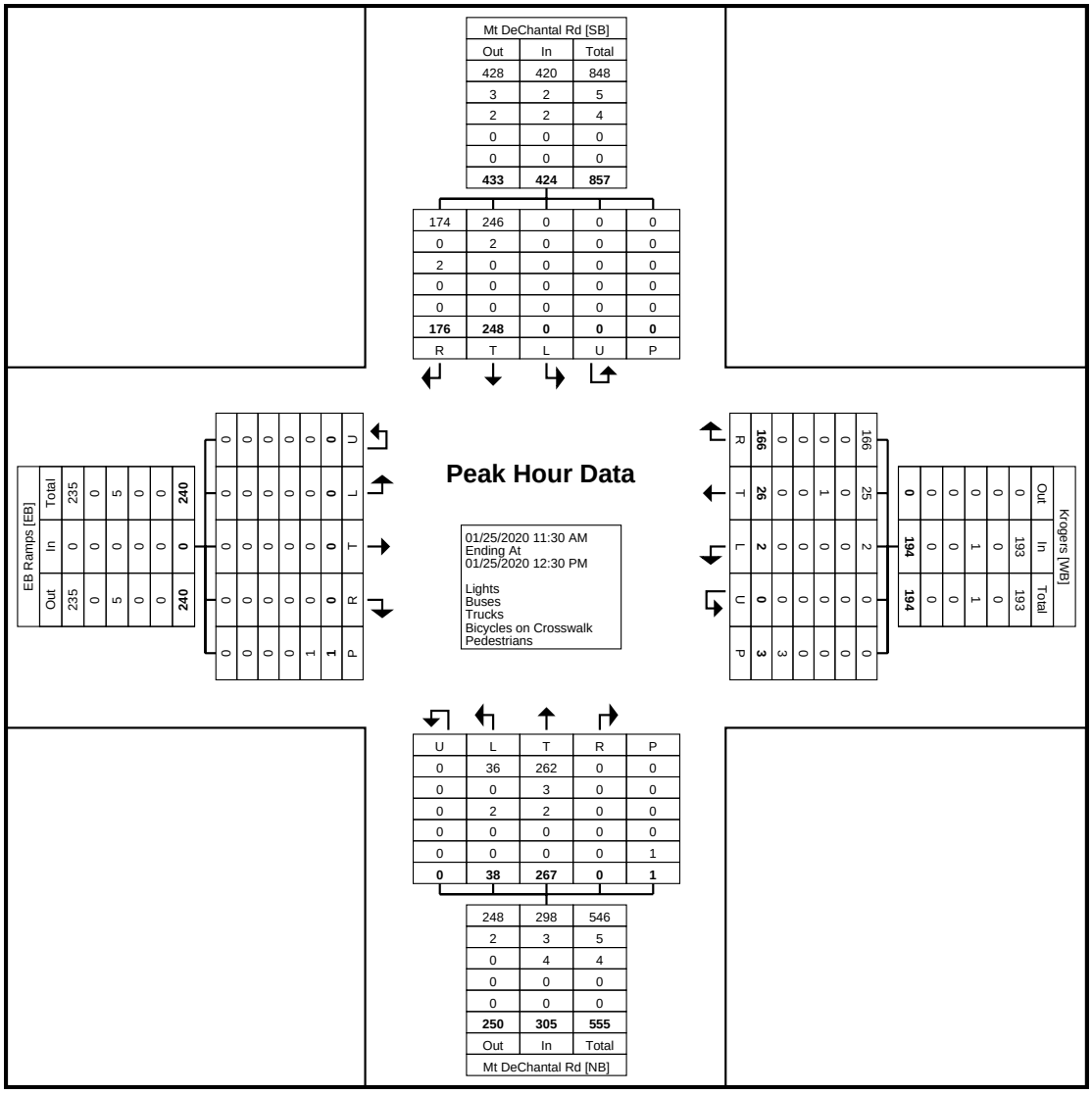
Wheeling, WV
EB Ramps/Krogers & Mt DeChantel Rd
Saturday. January 25, 2020
Location: 40.073989, -80.700647

Count Name: EB Ramps/Mt Dechantel Rd/ Krogers SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:30 AM)

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Wheeling, WV
Mt DeChantel Rd & Krogers
Friday, January 24, 2020
Location: 40.073089, -80.699587

Count Name: Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound					
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
7:00 AM	2	1	2	0	0	5	28	10	1	0	0	39	20	15	0	0	35	79
7:15 AM	3	4	8	0	0	15	52	13	1	0	0	66	26	10	0	0	36	117
7:30 AM	2	5	9	0	0	16	62	9	5	0	0	76	31	18	0	0	49	141
7:45 AM	1	4	7	0	2	12	85	7	4	0	0	96	36	38	0	0	74	182
Hourly Total	8	14	26	0	2	48	227	39	11	0	0	277	113	81	0	0	194	519
8:00 AM	1	7	10	0	0	18	69	15	7	0	0	91	40	11	0	0	51	160
8:15 AM	2	5	16	0	0	23	71	19	4	0	0	94	32	16	0	0	48	165
8:30 AM	3	3	13	0	0	19	54	14	2	0	0	70	28	16	0	0	44	133
8:45 AM	1	2	10	0	2	13	73	10	2	0	0	85	24	10	0	0	34	132
Hourly Total	7	17	49	0	2	73	267	58	15	0	0	340	124	53	0	0	177	590
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	6	8	14	0	0	28	58	21	4	0	0	83	56	13	0	0	69	180
3:15 PM	2	6	26	0	0	34	84	31	6	0	0	121	55	22	0	0	77	232
3:30 PM	2	7	25	0	0	34	67	27	5	0	0	99	60	7	0	0	67	200
3:45 PM	2	4	32	0	0	38	73	35	6	0	0	114	68	12	0	0	80	232
Hourly Total	12	25	97	0	0	134	282	114	21	0	0	417	239	54	0	0	293	844
4:00 PM	3	11	29	0	0	43	82	24	8	0	0	114	46	12	0	0	58	215
4:15 PM	3	4	18	0	0	25	79	19	9	0	0	107	48	13	0	0	61	193
4:30 PM	2	16	17	0	0	35	93	27	7	0	0	127	70	9	0	0	79	241
4:45 PM	3	8	24	0	0	35	70	16	8	0	0	94	64	7	0	0	71	200
Hourly Total	11	39	88	0	0	138	324	86	32	0	0	442	228	41	0	0	269	849
5:00 PM	3	7	28	0	0	38	51	21	3	0	0	75	58	9	0	0	67	180
5:15 PM	3	12	11	0	2	26	61	21	6	0	0	88	41	14	0	0	55	169
5:30 PM	2	8	13	0	0	23	68	17	6	0	0	91	42	11	0	0	53	167
5:45 PM	3	8	17	0	0	28	59	19	2	0	0	80	60	13	0	0	73	181
Hourly Total	11	35	69	0	2	115	239	78	17	0	0	334	201	47	0	0	248	697
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	49	130	329	0	6	508	1339	375	96	0	0	1810	905	276	0	0	1181	3499
Approach %	9.6	25.6	64.8	0.0	-	-	74.0	20.7	5.3	0.0	-	-	76.6	23.4	0.0	-	-	-
Total %	1.4	3.7	9.4	0.0	-	14.5	38.3	10.7	2.7	0.0	-	51.7	25.9	7.9	0.0	-	33.8	-
Lights	49	128	326	0	-	503	1265	373	96	0	-	1734	895	267	0	-	1162	3399
% Lights	100.0	98.5	99.1	-	-	99.0	94.5	99.5	100.0	-	-	95.8	98.9	96.7	-	-	98.4	97.1
Buses	0	0	2	0	-	2	47	0	0	0	-	47	2	0	0	-	2	51
% Buses	0.0	0.0	0.6	-	-	0.4	3.5	0.0	0.0	-	-	2.6	0.2	0.0	-	-	0.2	1.5
Trucks	0	2	1	0	-	3	27	2	0	0	-	29	8	9	0	-	17	49
% Trucks	0.0	1.5	0.3	-	-	0.6	2.0	0.5	0.0	-	-	1.6	0.9	3.3	-	-	1.4	1.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-

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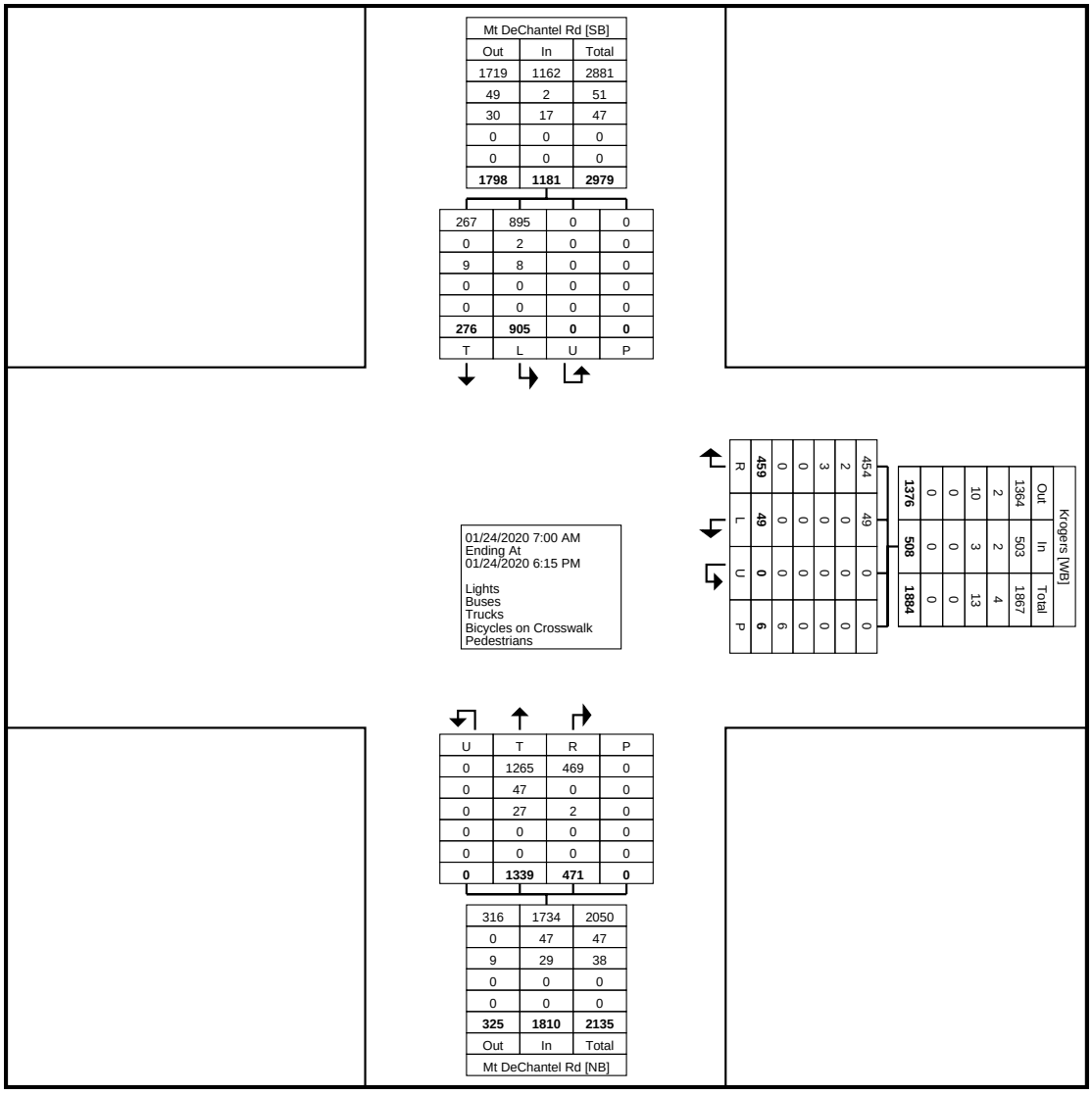
Friday, January 24, 2020
Location: 40.073089, -80.699587

Count Name: Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound					
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
7:30 AM	2	5	9	0	0	16	62	9	5	0	0	76	31	18	0	0	49	141
7:45 AM	1	4	7	0	2	12	85	7	4	0	0	96	36	38	0	0	74	182
8:00 AM	1	7	10	0	0	18	69	15	7	0	0	91	40	11	0	0	51	160
8:15 AM	2	5	16	0	0	23	71	19	4	0	0	94	32	16	0	0	48	165
Total	6	21	42	0	2	69	287	50	20	0	0	357	139	83	0	0	222	648
Approach %	8.7	30.4	60.9	0.0	-	-	80.4	14.0	5.6	0.0	-	-	62.6	37.4	0.0	-	-	-
Total %	0.9	3.2	6.5	0.0	-	10.6	44.3	7.7	3.1	0.0	-	55.1	21.5	12.8	0.0	-	34.3	-
PHF	0.750	0.750	0.656	0.000	-	0.750	0.844	0.658	0.714	0.000	-	0.930	0.869	0.546	0.000	-	0.750	0.890
Lights	6	21	42	0	-	69	270	50	20	0	-	340	139	82	0	-	221	630
% Lights	100.0	100.0	100.0	-	-	100.0	94.1	100.0	100.0	-	-	95.2	100.0	98.8	-	-	99.5	97.2
Buses	0	0	0	0	-	0	7	0	0	0	-	7	0	0	0	-	0	7
% Buses	0.0	0.0	0.0	-	-	0.0	2.4	0.0	0.0	-	-	2.0	0.0	0.0	-	-	0.0	1.1
Trucks	0	0	0	0	-	0	10	0	0	0	-	10	0	1	0	-	1	11
% Trucks	0.0	0.0	0.0	-	-	0.0	3.5	0.0	0.0	-	-	2.8	0.0	1.2	-	-	0.5	1.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-

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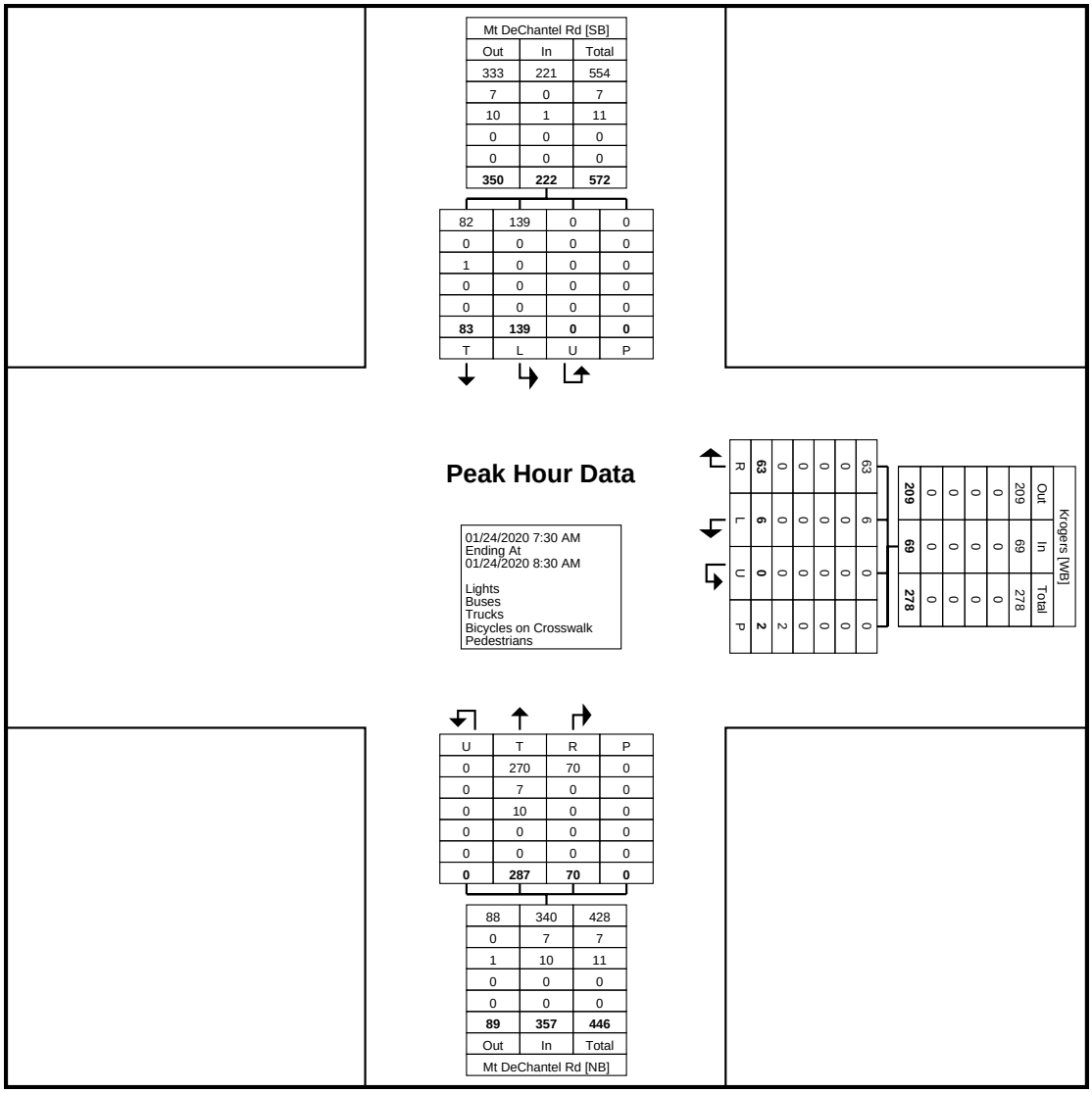

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Friday, January 24, 2020
Location: 40.073089, -80.699587

Count Name: Mt DeChantel Rd/Krogers
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (3:45 PM)

Start Time	Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound					
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
3:45 PM	2	4	32	0	0	38	73	35	6	0	0	114	68	12	0	0	80	232
4:00 PM	3	11	29	0	0	43	82	24	8	0	0	114	46	12	0	0	58	215
4:15 PM	3	4	18	0	0	25	79	19	9	0	0	107	48	13	0	0	61	193
4:30 PM	2	16	17	0	0	35	93	27	7	0	0	127	70	9	0	0	79	241
Total	10	35	96	0	0	141	327	105	30	0	0	462	232	46	0	0	278	881
Approach %	7.1	24.8	68.1	0.0	-	-	70.8	22.7	6.5	0.0	-	-	83.5	16.5	0.0	-	-	-
Total %	1.1	4.0	10.9	0.0	-	16.0	37.1	11.9	3.4	0.0	-	52.4	26.3	5.2	0.0	-	31.6	-
PHF	0.833	0.547	0.750	0.000	-	0.820	0.879	0.750	0.833	0.000	-	0.909	0.829	0.885	0.000	-	0.869	0.914
Lights	10	34	95	0	-	139	314	104	30	0	-	448	231	45	0	-	276	863
% Lights	100.0	97.1	99.0	-	-	98.6	96.0	99.0	100.0	-	-	97.0	99.6	97.8	-	-	99.3	98.0
Buses	0	0	1	0	-	1	9	0	0	0	-	9	1	0	0	-	1	11
% Buses	0.0	0.0	1.0	-	-	0.7	2.8	0.0	0.0	-	-	1.9	0.4	0.0	-	-	0.4	1.2
Trucks	0	1	0	0	-	1	4	1	0	0	-	5	0	1	0	-	1	7
% Trucks	0.0	2.9	0.0	-	-	0.7	1.2	1.0	0.0	-	-	1.1	0.0	2.2	-	-	0.4	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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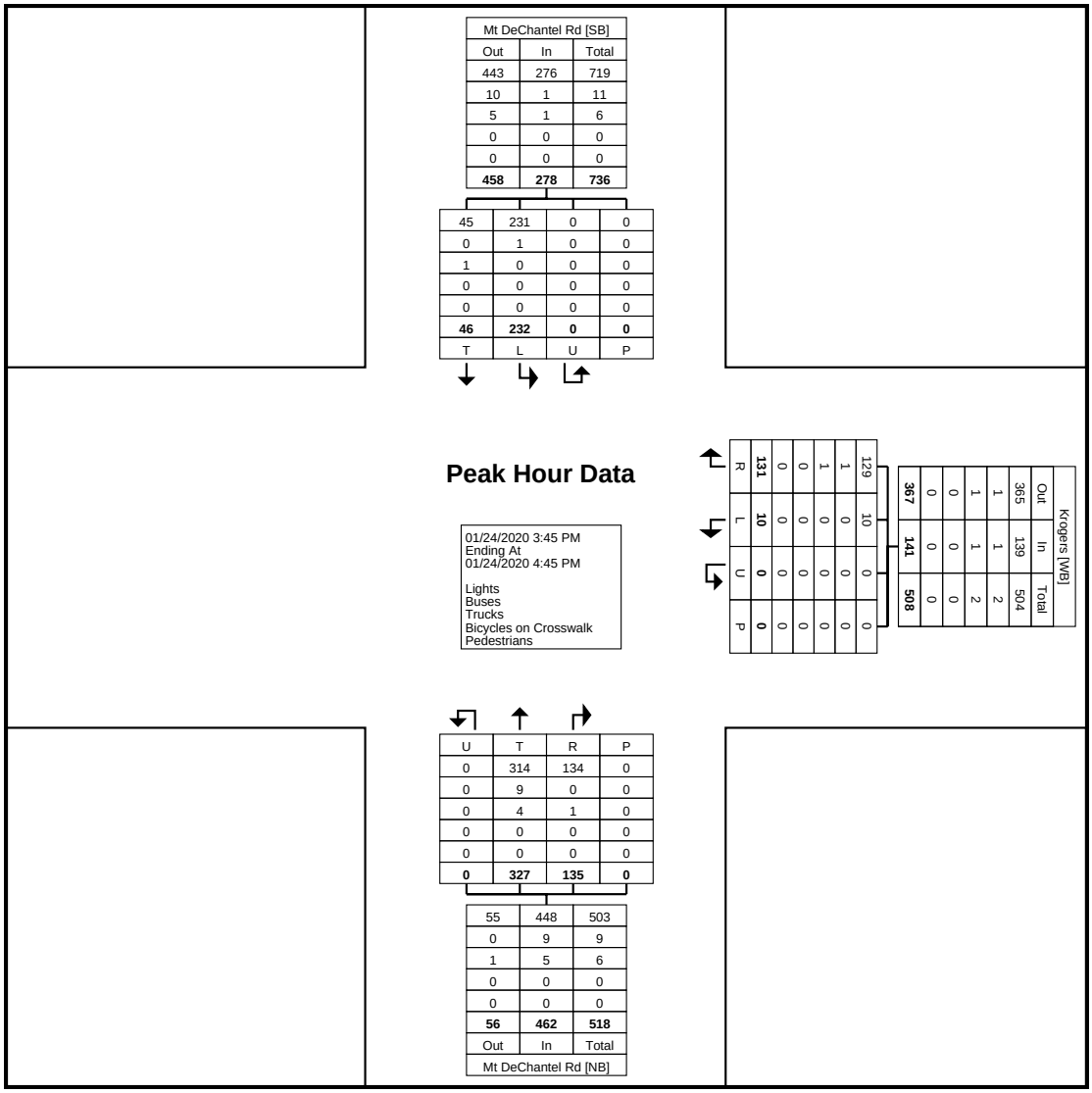

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Saturday, January 25, 2020
Location: 40.073089, -80.699587

Count Name: Mt DeChantel Rd/Krogers SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound					
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
11:00 AM	2	6	13	0	1	21	49	23	3	0	0	75	51	4	0	0	55	151
11:15 AM	1	11	9	0	0	21	37	20	5	0	0	62	43	6	0	0	49	132
11:30 AM	2	9	8	0	0	19	52	20	3	0	0	75	60	11	0	0	71	165
11:45 AM	2	13	17	0	0	32	54	13	6	0	0	73	61	4	0	0	65	170
Hourly Total	7	39	47	0	1	93	192	76	17	0	0	285	215	25	0	0	240	618
12:00 PM	1	0	24	0	0	25	60	29	3	0	0	92	55	5	0	0	60	177
12:15 PM	2	3	20	0	0	25	51	23	1	0	0	75	48	5	0	0	53	153
12:30 PM	2	3	23	0	0	28	27	24	1	0	0	52	47	10	0	0	57	137
12:45 PM	4	3	25	0	0	32	33	20	2	0	0	55	53	6	0	0	59	146
Hourly Total	9	9	92	0	0	110	171	96	7	0	0	274	203	26	0	0	229	613
1:00 PM	4	14	11	0	0	29	37	26	1	0	0	64	51	3	0	0	54	147
1:15 PM	1	14	9	0	0	24	40	23	0	0	0	63	49	7	0	0	56	143
1:30 PM	2	16	8	0	0	26	31	18	2	0	0	51	59	9	0	0	68	145
1:45 PM	3	12	9	0	0	24	43	31	8	0	0	82	46	7	0	0	53	159
Hourly Total	10	56	37	0	0	103	151	98	11	0	0	260	205	26	0	0	231	594
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	26	104	176	0	1	306	514	270	35	0	0	819	623	77	0	0	700	1825
Approach %	8.5	34.0	57.5	0.0	-	-	62.8	33.0	4.3	0.0	-	-	89.0	11.0	0.0	-	-	-
Total %	1.4	5.7	9.6	0.0	-	16.8	28.2	14.8	1.9	0.0	-	44.9	34.1	4.2	0.0	-	38.4	-
Lights	26	102	171	0	-	299	505	268	35	0	-	808	615	77	0	-	692	1799
% Lights	100.0	98.1	97.2	-	-	97.7	98.2	99.3	100.0	-	-	98.7	98.7	100.0	-	-	98.9	98.6
Buses	0	2	4	0	-	6	3	0	0	0	-	3	6	0	0	-	6	15
% Buses	0.0	1.9	2.3	-	-	2.0	0.6	0.0	0.0	-	-	0.4	1.0	0.0	-	-	0.9	0.8
Trucks	0	0	1	0	-	1	6	2	0	0	-	8	2	0	0	-	2	11
% Trucks	0.0	0.0	0.6	-	-	0.3	1.2	0.7	0.0	-	-	1.0	0.3	0.0	-	-	0.3	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-

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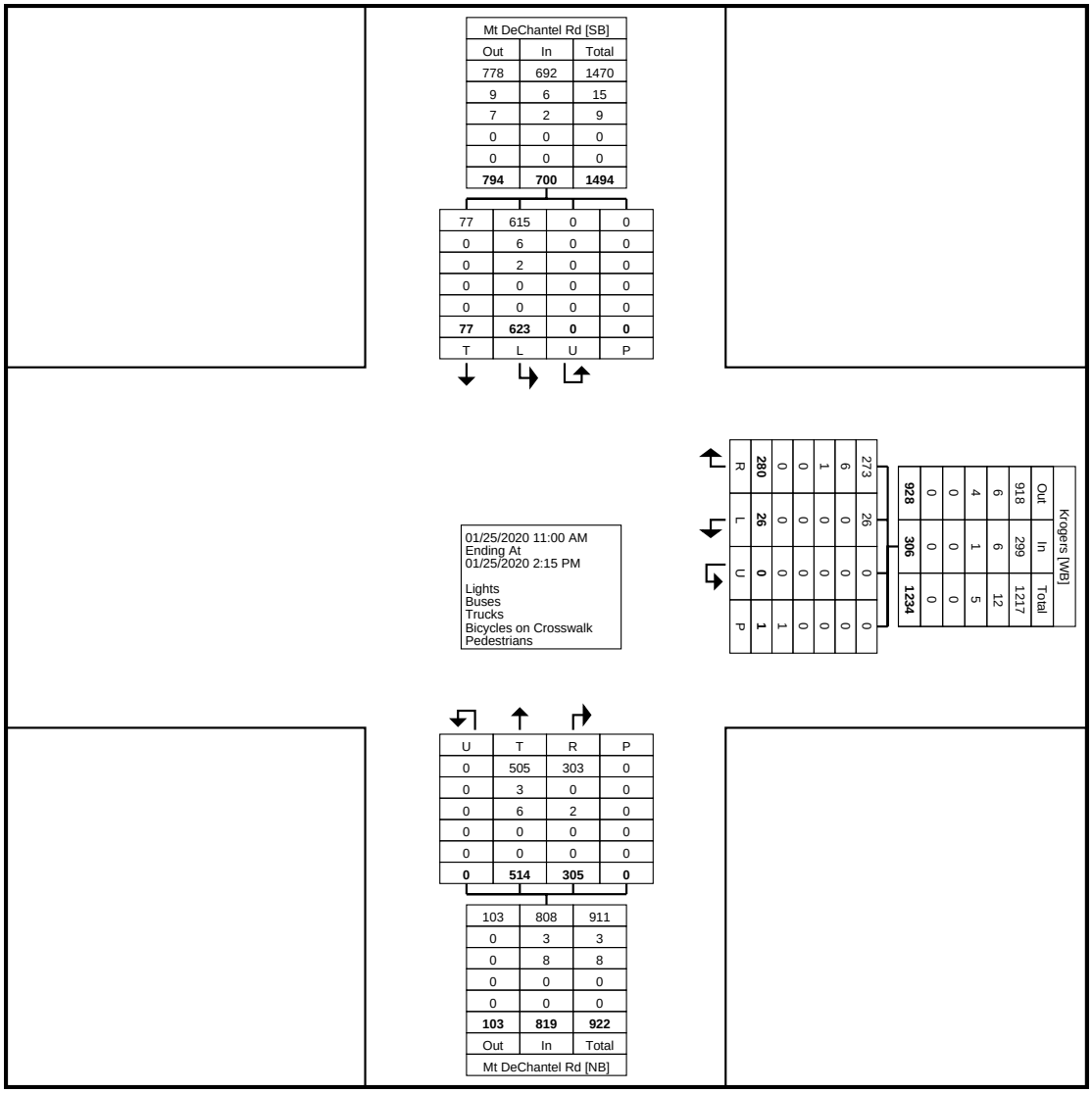

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Start Time	Krogers Westbound						Mt DeChantel Rd Northbound						Mt DeChantel Rd Southbound					
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
11:30 AM	2	9	8	0	0	19	52	20	3	0	0	75	60	11	0	0	71	165
11:45 AM	2	13	17	0	0	32	54	13	6	0	0	73	61	4	0	0	65	170
12:00 PM	1	0	24	0	0	25	60	29	3	0	0	92	55	5	0	0	60	177
12:15 PM	2	3	20	0	0	25	51	23	1	0	0	75	48	5	0	0	53	153
Total	7	25	69	0	0	101	217	85	13	0	0	315	224	25	0	0	249	665
Approach %	6.9	24.8	68.3	0.0	-	-	68.9	27.0	4.1	0.0	-	-	90.0	10.0	0.0	-	-	-
Total %	1.1	3.8	10.4	0.0	-	15.2	32.6	12.8	2.0	0.0	-	47.4	33.7	3.8	0.0	-	37.4	-
PHF	0.875	0.481	0.719	0.000	-	0.789	0.904	0.733	0.542	0.000	-	0.856	0.918	0.568	0.000	-	0.877	0.939
Lights	7	25	67	0	-	99	213	84	13	0	-	310	222	25	0	-	247	656
% Lights	100.0	100.0	97.1	-	-	98.0	98.2	98.8	100.0	-	-	98.4	99.1	100.0	-	-	99.2	98.6
Buses	0	0	2	0	-	2	1	0	0	0	-	1	2	0	0	-	2	5
% Buses	0.0	0.0	2.9	-	-	2.0	0.5	0.0	0.0	-	-	0.3	0.9	0.0	-	-	0.8	0.8
Trucks	0	0	0	0	-	0	3	1	0	0	-	4	0	0	0	-	0	4
% Trucks	0.0	0.0	0.0	-	-	0.0	1.4	1.2	0.0	-	-	1.3	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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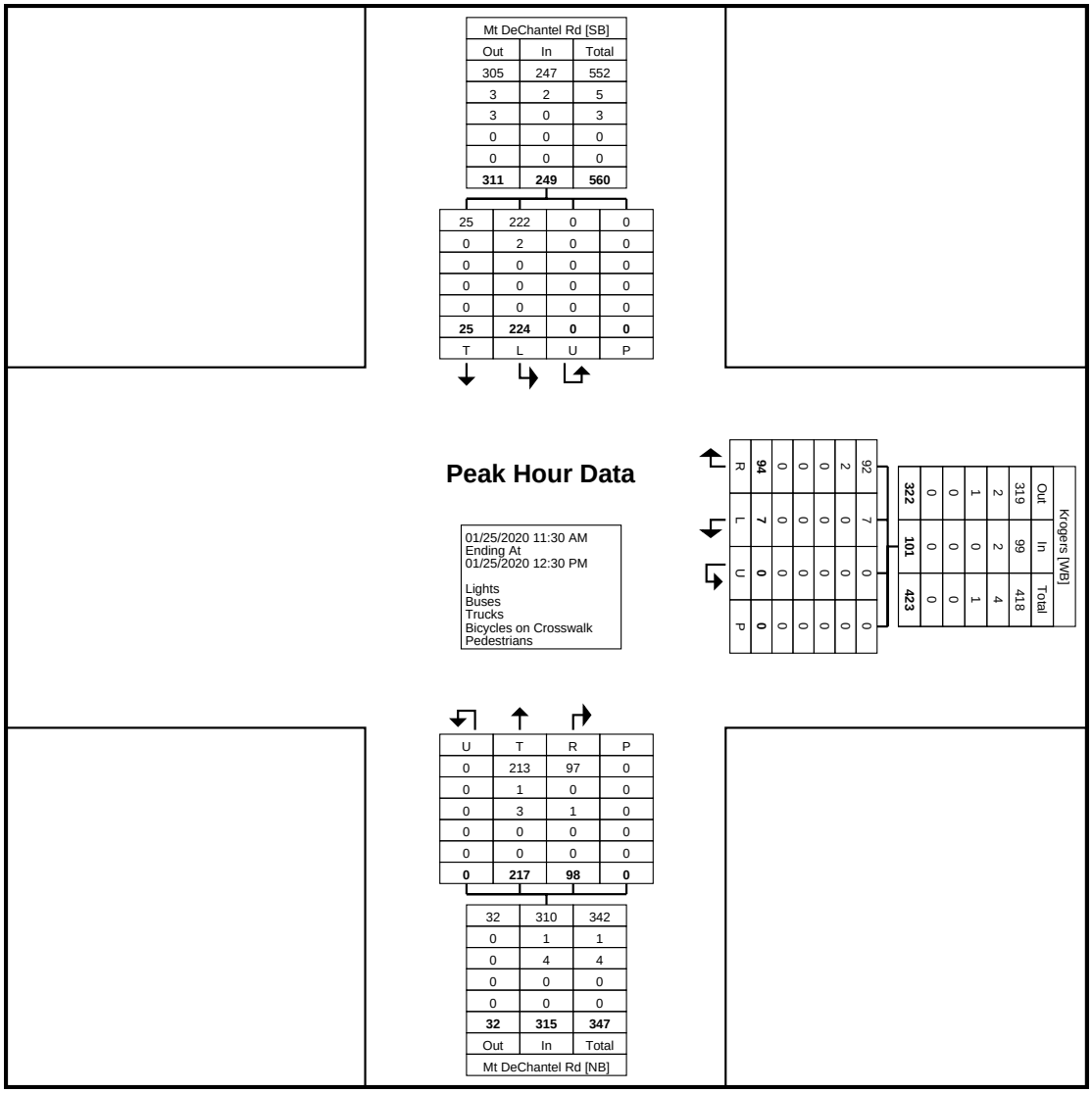
Wheeling, WV
Mt DeChantel Rd & Krogers
Saturday, January 25, 2020
Location: 40.073089, -80.699587

Count Name: Mt DeChantel Rd/Krogers SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:30 AM)

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Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020

Turning Movement Data

Start Time	Route 40 Eastbound					Route 40 Westbound					WB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	46	6	0	0	52	96	28	0	0	124	0	0	0	0	0	176
7:15 AM	52	9	0	0	61	133	48	0	0	181	0	0	0	0	0	242
7:30 AM	61	13	0	0	74	153	74	0	0	227	0	0	0	2	0	301
7:45 AM	83	8	0	0	91	179	90	0	0	269	0	0	0	0	0	360
Hourly Total	242	36	0	0	278	561	240	0	0	801	0	0	0	2	0	1079
8:00 AM	46	6	0	0	52	159	80	0	0	239	0	0	0	0	0	291
8:15 AM	53	10	0	0	63	160	73	0	0	233	0	0	0	0	0	296
8:30 AM	56	8	0	0	64	117	85	0	0	202	0	0	0	0	0	266
8:45 AM	69	18	0	0	87	135	111	0	0	246	0	0	0	0	0	333
Hourly Total	224	42	0	0	266	571	349	0	0	920	0	0	0	0	0	1186
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	86	29	0	0	115	170	104	0	0	274	0	0	0	0	0	389
3:15 PM	90	17	0	0	107	184	132	0	0	316	0	0	0	2	0	423
3:30 PM	72	12	0	0	84	159	125	0	0	284	0	0	0	1	0	368
3:45 PM	75	12	0	0	87	153	119	0	0	272	0	0	0	0	0	359
Hourly Total	323	70	0	0	393	666	480	0	0	1146	0	0	0	3	0	1539
4:00 PM	84	10	0	0	94	145	119	0	0	264	0	0	0	1	0	358
4:15 PM	86	18	0	0	104	134	108	0	0	242	0	0	0	1	0	346
4:30 PM	93	21	0	0	114	139	127	0	0	266	0	0	0	2	0	380
4:45 PM	76	11	0	0	87	128	104	0	0	232	0	0	0	0	0	319
Hourly Total	339	60	0	0	399	546	458	0	0	1004	0	0	0	4	0	1403
5:00 PM	118	16	0	0	134	172	77	0	0	249	0	0	0	1	0	383
5:15 PM	93	9	0	0	102	159	120	0	0	279	0	0	0	0	0	381
5:30 PM	71	8	0	0	79	129	82	0	0	211	0	0	0	2	0	290
5:45 PM	67	9	0	0	76	128	86	0	0	214	0	0	0	0	0	290
Hourly Total	349	42	0	0	391	588	365	0	0	953	0	0	0	3	0	1344
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1477	250	0	0	1727	2932	1892	0	0	4824	0	0	0	12	0	6551
Approach %	85.5	14.5	0.0	-	-	60.8	39.2	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	22.5	3.8	0.0	-	26.4	44.8	28.9	0.0	-	73.6	0.0	0.0	0.0	-	0.0	-
Lights	1418	238	0	-	1656	2887	1783	0	-	4670	0	0	0	-	0	6326
% Lights	96.0	95.2	-	-	95.9	98.5	94.2	-	-	96.8	-	-	-	-	-	96.6
Buses	33	3	0	-	36	5	81	0	-	86	0	0	0	-	0	122
% Buses	2.2	1.2	-	-	2.1	0.2	4.3	-	-	1.8	-	-	-	-	-	1.9
Trucks	26	9	0	-	35	40	28	0	-	68	0	0	0	-	0	103
% Trucks	1.8	3.6	-	-	2.0	1.4	1.5	-	-	1.4	-	-	-	-	-	1.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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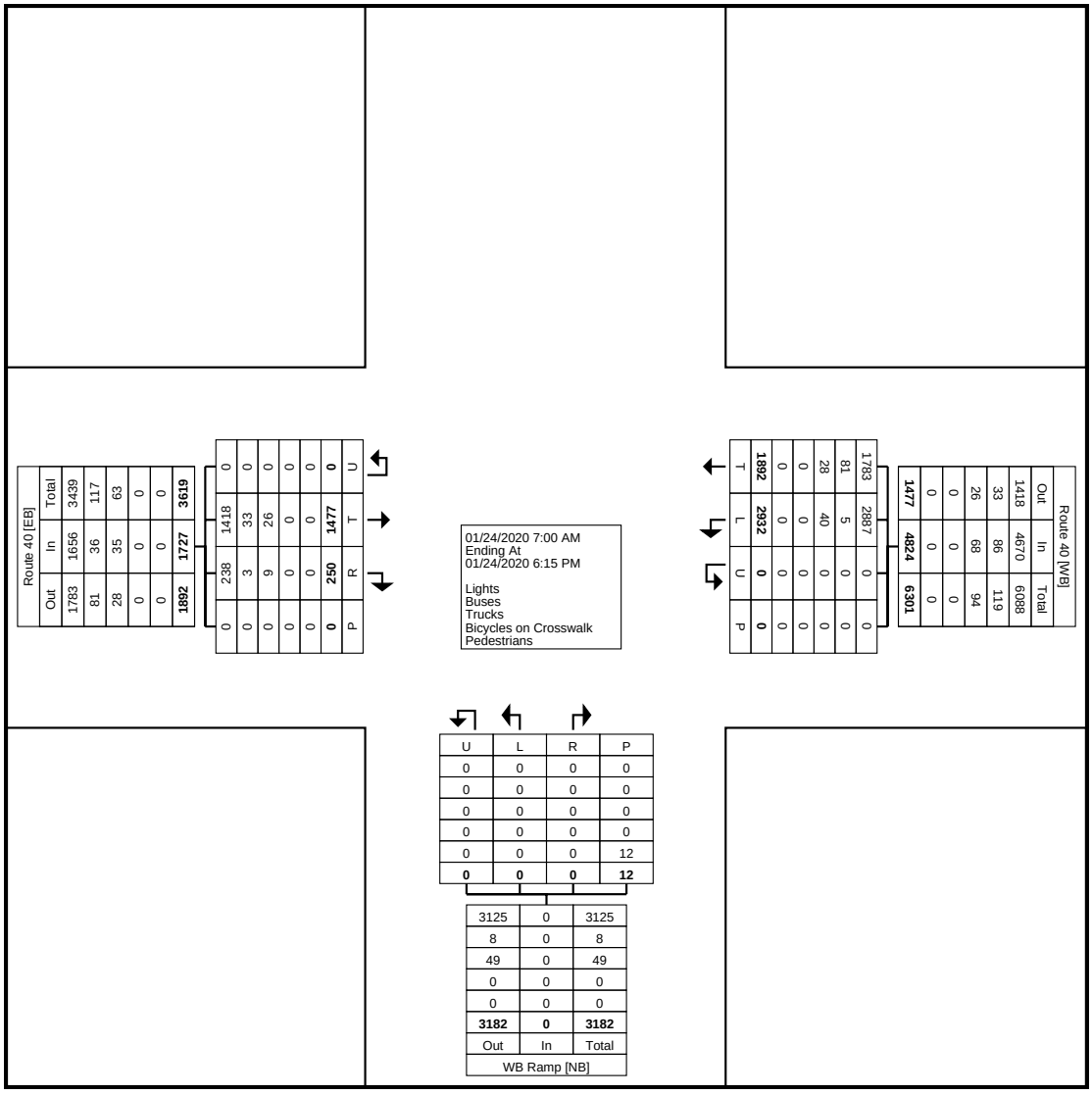
Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Route 40 Eastbound					Route 40 Westbound					WB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:30 AM	61	13	0	0	74	153	74	0	0	227	0	0	0	2	0	301
7:45 AM	83	8	0	0	91	179	90	0	0	269	0	0	0	0	0	360
8:00 AM	46	6	0	0	52	159	80	0	0	239	0	0	0	0	0	291
8:15 AM	53	10	0	0	63	160	73	0	0	233	0	0	0	0	0	296
Total	243	37	0	0	280	651	317	0	0	968	0	0	0	2	0	1248
Approach %	86.8	13.2	0.0	-	-	67.3	32.7	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	19.5	3.0	0.0	-	22.4	52.2	25.4	0.0	-	77.6	0.0	0.0	0.0	-	0.0	-
PHF	0.732	0.712	0.000	-	0.769	0.909	0.881	0.000	-	0.900	0.000	0.000	0.000	-	0.000	0.867
Lights	225	37	0	-	262	633	305	0	-	938	0	0	0	-	0	1200
% Lights	92.6	100.0	-	-	93.6	97.2	96.2	-	-	96.9	-	-	-	-	-	96.2
Buses	8	0	0	-	8	2	9	0	-	11	0	0	0	-	0	19
% Buses	3.3	0.0	-	-	2.9	0.3	2.8	-	-	1.1	-	-	-	-	-	1.5
Trucks	10	0	0	-	10	16	3	0	-	19	0	0	0	-	0	29
% Trucks	4.1	0.0	-	-	3.6	2.5	0.9	-	-	2.0	-	-	-	-	-	2.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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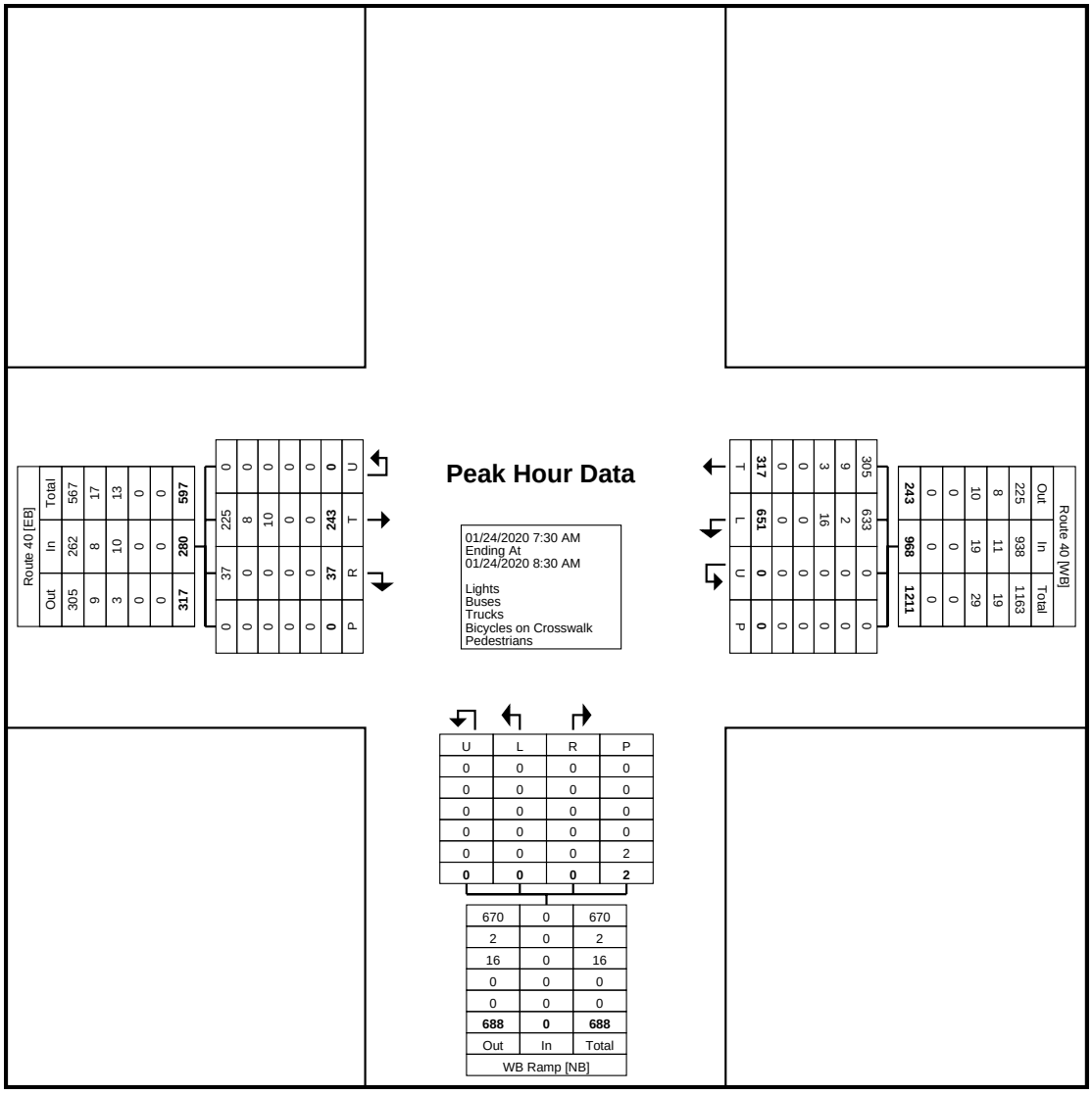
Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

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Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

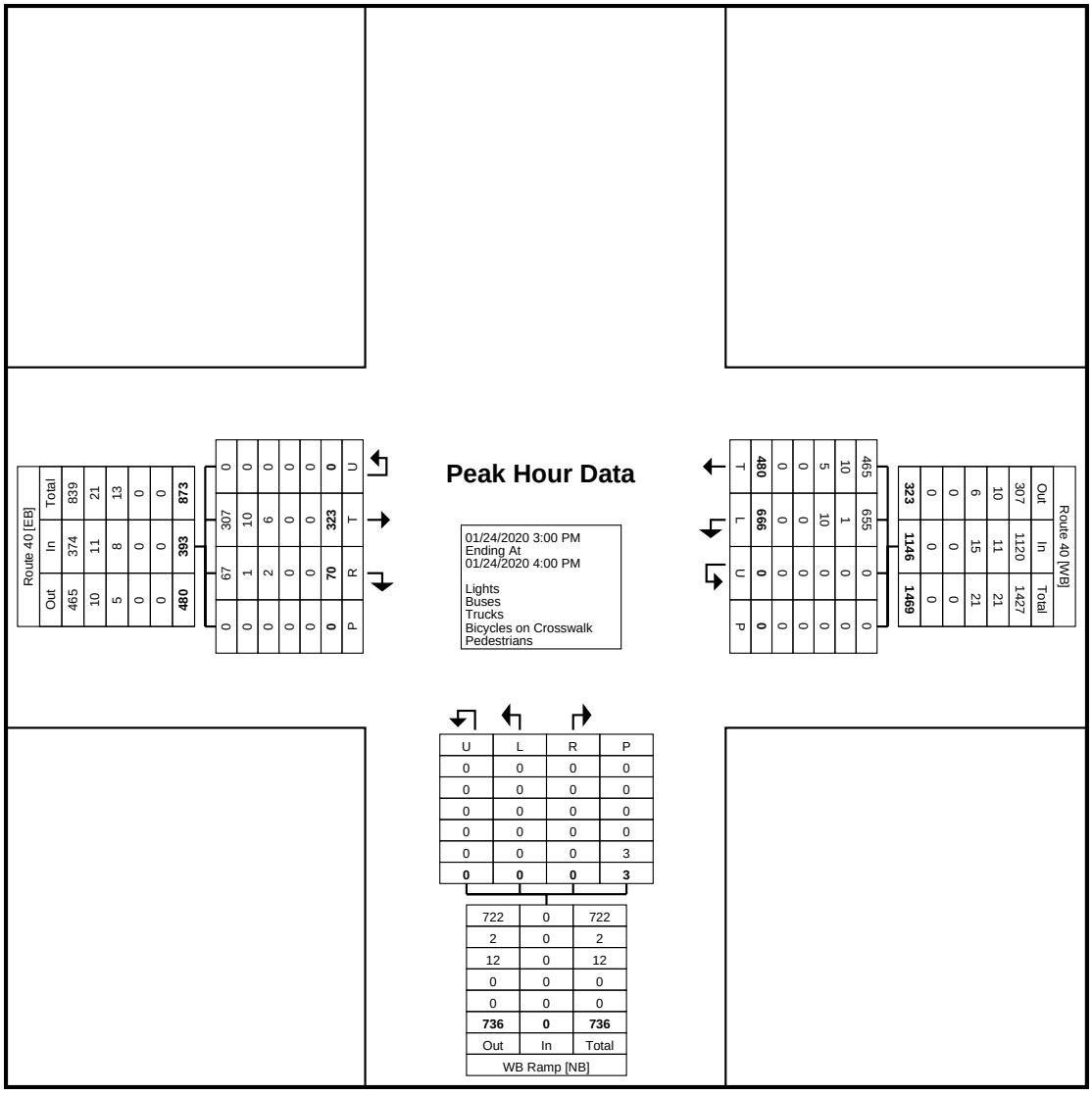
Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (3:00 PM)

Start Time	Route 40 Eastbound					Route 40 Westbound					WB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
3:00 PM	86	29	0	0	115	170	104	0	0	274	0	0	0	0	0	389
3:15 PM	90	17	0	0	107	184	132	0	0	316	0	0	0	2	0	423
3:30 PM	72	12	0	0	84	159	125	0	0	284	0	0	0	1	0	368
3:45 PM	75	12	0	0	87	153	119	0	0	272	0	0	0	0	0	359
Total	323	70	0	0	393	666	480	0	0	1146	0	0	0	3	0	1539
Approach %	82.2	17.8	0.0	-	-	58.1	41.9	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	21.0	4.5	0.0	-	25.5	43.3	31.2	0.0	-	74.5	0.0	0.0	0.0	-	0.0	-
PHF	0.897	0.603	0.000	-	0.854	0.905	0.909	0.000	-	0.907	0.000	0.000	0.000	-	0.000	0.910
Lights	307	67	0	-	374	655	465	0	-	1120	0	0	0	-	0	1494
% Lights	95.0	95.7	-	-	95.2	98.3	96.9	-	-	97.7	-	-	-	-	-	97.1
Buses	10	1	0	-	11	1	10	0	-	11	0	0	0	-	0	22
% Buses	3.1	1.4	-	-	2.8	0.2	2.1	-	-	1.0	-	-	-	-	-	1.4
Trucks	6	2	0	-	8	10	5	0	-	15	0	0	0	-	0	23
% Trucks	1.9	2.9	-	-	2.0	1.5	1.0	-	-	1.3	-	-	-	-	-	1.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Wheeling, WV
Route 40 & I70 WB Ramps
Friday, January 24, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps
Site Code:
Start Date: 01/24/2020



Turning Movement Peak Hour Data Plot (3:00 PM)

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Wheeling, WV
Rt 40 & I70 WB Ramp
Saturday, January 25, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Route 40 Eastbound					Route 40 Westbound					WB Ramp Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
11:00 AM	55	15	0	0	70	121	62	0	0	183	0	0	0	0	0	253
11:15 AM	45	17	0	0	62	114	71	0	0	185	0	0	0	1	0	247
11:30 AM	57	16	0	0	73	108	81	0	0	189	0	0	0	1	0	262
11:45 AM	58	14	0	0	72	122	80	0	0	202	0	0	0	2	0	274
Hourly Total	215	62	0	0	277	465	294	0	0	759	0	0	0	4	0	1036
12:00 PM	58	14	0	0	72	132	75	0	0	207	0	0	0	0	0	279
12:15 PM	57	12	0	0	69	98	68	0	0	166	0	0	0	0	0	235
12:30 PM	54	13	0	0	67	103	66	0	0	169	0	0	0	0	0	236
12:45 PM	45	16	0	0	61	116	62	0	0	178	0	0	0	0	0	239
Hourly Total	214	55	0	0	269	449	271	0	0	720	0	0	0	0	0	989
1:00 PM	54	14	0	0	68	132	64	0	0	196	0	0	0	1	0	264
1:15 PM	43	10	0	0	53	99	58	0	0	157	0	0	0	0	0	210
1:30 PM	48	15	0	0	63	109	54	0	0	163	0	0	0	0	0	226
1:45 PM	43	10	0	0	53	99	61	0	0	160	0	0	0	0	0	213
Hourly Total	188	49	0	0	237	439	237	0	0	676	0	0	0	1	0	913
Grand Total	617	166	0	0	783	1353	802	0	0	2155	0	0	0	5	0	2938
Approach %	78.8	21.2	0.0	-	-	62.8	37.2	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	21.0	5.7	0.0	-	26.7	46.1	27.3	0.0	-	73.3	0.0	0.0	0.0	-	0.0	-
Lights	607	164	0	-	771	1344	787	0	-	2131	0	0	0	-	0	2902
% Lights	98.4	98.8	-	-	98.5	99.3	98.1	-	-	98.9	-	-	-	-	-	98.8
Buses	6	0	0	-	6	1	6	0	-	7	0	0	0	-	0	13
% Buses	1.0	0.0	-	-	0.8	0.1	0.7	-	-	0.3	-	-	-	-	-	0.4
Trucks	4	2	0	-	6	8	9	0	-	17	0	0	0	-	0	23
% Trucks	0.6	1.2	-	-	0.8	0.6	1.1	-	-	0.8	-	-	-	-	-	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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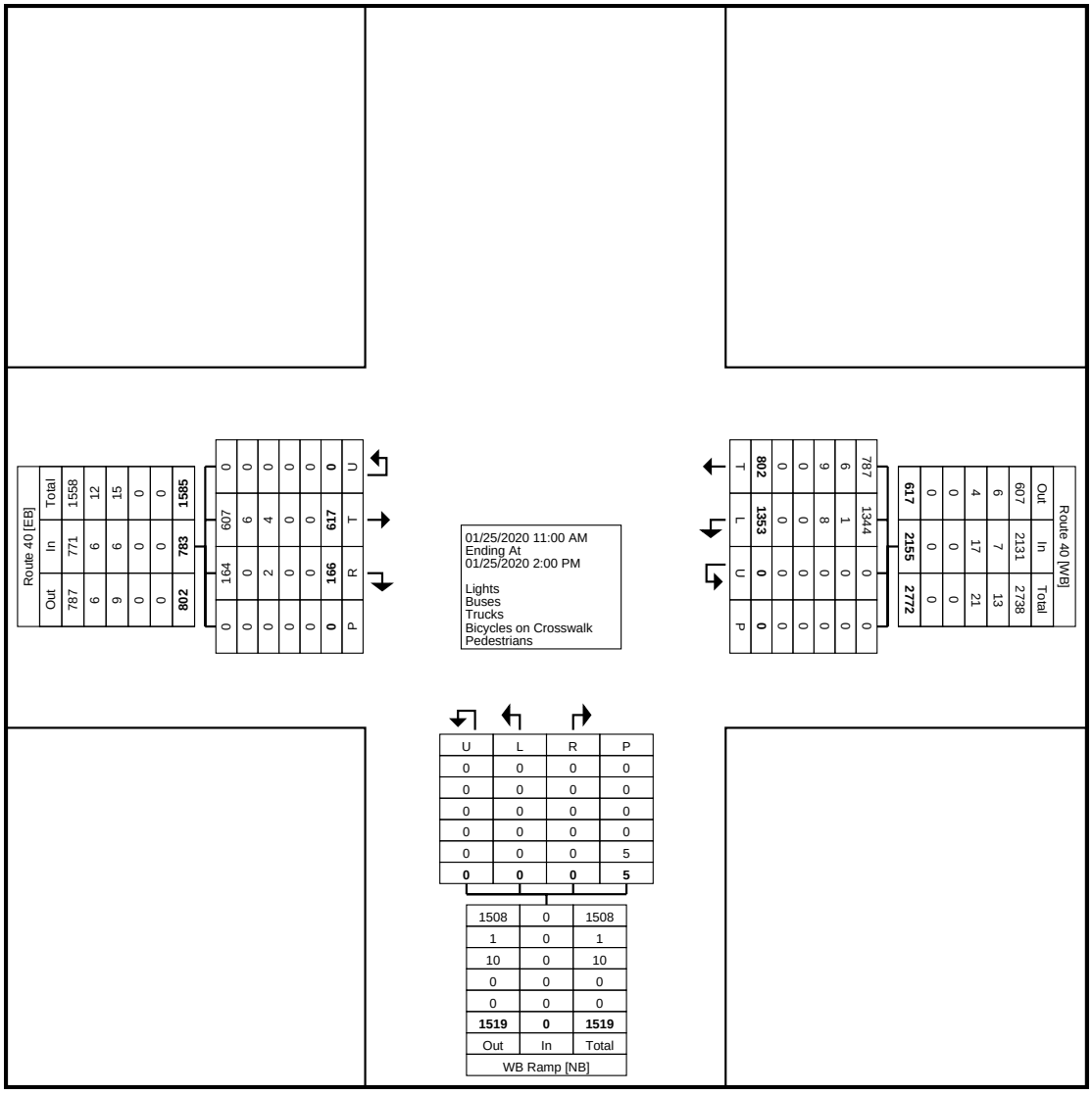
Wheeling, WV
Rt 40 & I70 WB Ramp
Saturday, January 25, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Data Plot

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Wheeling, WV
Rt 40 & I70 WB Ramp
Saturday, January 25, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:15 AM)

Start Time	Route 40 Eastbound					Route 40 Westbound					WB Ramp Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:15 AM	45	17	0	0	62	114	71	0	0	185	0	0	0	1	0	247
11:30 AM	57	16	0	0	73	108	81	0	0	189	0	0	0	1	0	262
11:45 AM	58	14	0	0	72	122	80	0	0	202	0	0	0	2	0	274
12:00 PM	58	14	0	0	72	132	75	0	0	207	0	0	0	0	0	279
Total	218	61	0	0	279	476	307	0	0	783	0	0	0	4	0	1062
Approach %	78.1	21.9	0.0	-	-	60.8	39.2	0.0	-	-	0.0	0.0	0.0	-	-	-
Total %	20.5	5.7	0.0	-	26.3	44.8	28.9	0.0	-	73.7	0.0	0.0	0.0	-	0.0	-
PHF	0.940	0.897	0.000	-	0.955	0.902	0.948	0.000	-	0.946	0.000	0.000	0.000	-	0.000	0.952
Lights	215	60	0	-	275	473	301	0	-	774	0	0	0	-	0	1049
% Lights	98.6	98.4	-	-	98.6	99.4	98.0	-	-	98.9	-	-	-	-	-	98.8
Buses	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Buses	0.0	0.0	-	-	0.0	0.0	0.7	-	-	0.3	-	-	-	-	-	0.2
Trucks	3	1	0	-	4	3	4	0	-	7	0	0	0	-	0	11
% Trucks	1.4	1.6	-	-	1.4	0.6	1.3	-	-	0.9	-	-	-	-	-	1.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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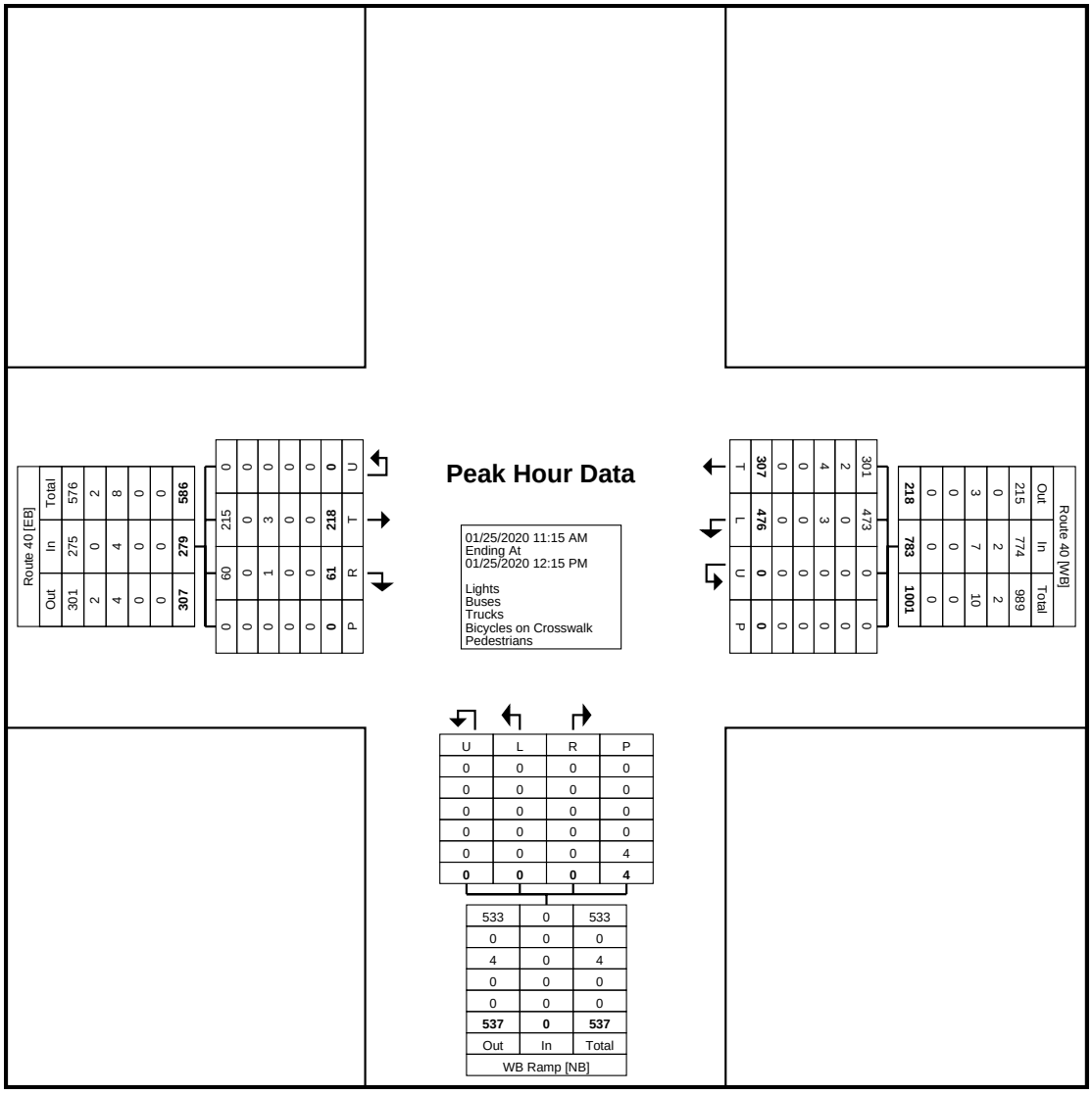
Wheeling, WV
Rt 40 & I70 WB Ramp
Saturday, January 25, 2020
Location: 40.074991, -80.703544

Count Name: Route 40/I70 WB Ramps SAT
Site Code:
Start Date: 01/25/2020



Turning Movement Peak Hour Data Plot (11:15 AM)

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Wheeling, WV
Bethany Pike & Warden
Friday, January 24, 2020
Location: 40.089462, -80.687674

Count Name: Bethany Pike/Warden Rd
Site Code:
Start Date: 01/24/2020
Page No: 1

Turning Movement Data

Start Time	Bethany Pike Eastbound					Warden Rd Westbound					Bethany Pike Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:00 AM	14	14	0	0	28	7	1	0	0	8	0	43	0	0	43	79
7:15 AM	32	16	0	0	48	18	0	0	0	18	0	56	0	0	56	122
7:30 AM	37	10	0	0	47	14	1	0	0	15	0	54	0	0	54	116
7:45 AM	31	17	0	0	48	6	0	0	0	6	1	62	0	0	63	117
Hourly Total	114	57	0	0	171	45	2	0	0	47	1	215	0	0	216	434
8:00 AM	40	16	0	0	56	11	1	0	0	12	1	53	0	0	54	122
8:15 AM	53	10	0	0	63	20	0	0	0	20	1	49	0	0	50	133
8:30 AM	35	12	0	0	47	11	0	0	0	11	0	40	0	0	40	98
8:45 AM	42	10	0	0	52	9	0	0	0	9	0	36	0	0	36	97
Hourly Total	170	48	0	0	218	51	1	0	0	52	2	178	0	0	180	450
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	46	15	0	0	61	9	1	0	0	10	1	45	0	0	46	117
3:15 PM	46	12	0	0	58	17	1	0	0	18	1	73	0	0	74	150
3:30 PM	50	16	0	0	66	10	1	0	0	11	0	53	0	0	53	130
3:45 PM	64	21	0	0	85	14	1	0	0	15	1	46	0	0	47	147
Hourly Total	206	64	0	0	270	50	4	0	0	54	3	217	0	0	220	544
4:00 PM	54	15	0	0	69	13	1	0	0	14	1	41	0	0	42	125
4:15 PM	48	19	0	0	67	15	0	0	0	15	1	49	0	0	50	132
4:30 PM	53	10	0	0	63	16	0	0	0	16	0	44	0	0	44	123
4:45 PM	50	14	0	0	64	19	0	0	0	19	0	52	0	0	52	135
Hourly Total	205	58	0	0	263	63	1	0	0	64	2	186	0	0	188	515
5:00 PM	59	20	0	0	79	26	2	0	0	28	2	55	0	0	57	164
5:15 PM	60	20	0	0	80	16	0	0	0	16	0	56	0	0	56	152
5:30 PM	52	6	0	0	58	20	1	0	0	21	0	40	0	0	40	119
5:45 PM	53	5	0	0	58	6	0	0	0	6	2	33	0	0	35	99
Hourly Total	224	51	0	0	275	68	3	0	0	71	4	184	0	0	188	534
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	919	278	0	0	1197	277	11	0	0	288	12	980	0	0	992	2477
Approach %	76.8	23.2	0.0	-	-	96.2	3.8	0.0	-	-	1.2	98.8	0.0	-	-	-
Total %	37.1	11.2	0.0	-	48.3	11.2	0.4	0.0	-	11.6	0.5	39.6	0.0	-	40.0	-
Lights	909	272	0	-	1181	270	11	0	-	281	12	956	0	-	968	2430
% Lights	98.9	97.8	-	-	98.7	97.5	100.0	-	-	97.6	100.0	97.6	-	-	97.6	98.1
Buses	1	3	0	-	4	5	0	0	-	5	0	9	0	-	9	18
% Buses	0.1	1.1	-	-	0.3	1.8	0.0	-	-	1.7	0.0	0.9	-	-	0.9	0.7
Trucks	9	3	0	-	12	2	0	0	-	2	0	15	0	-	15	29
% Trucks	1.0	1.1	-	-	1.0	0.7	0.0	-	-	0.7	0.0	1.5	-	-	1.5	1.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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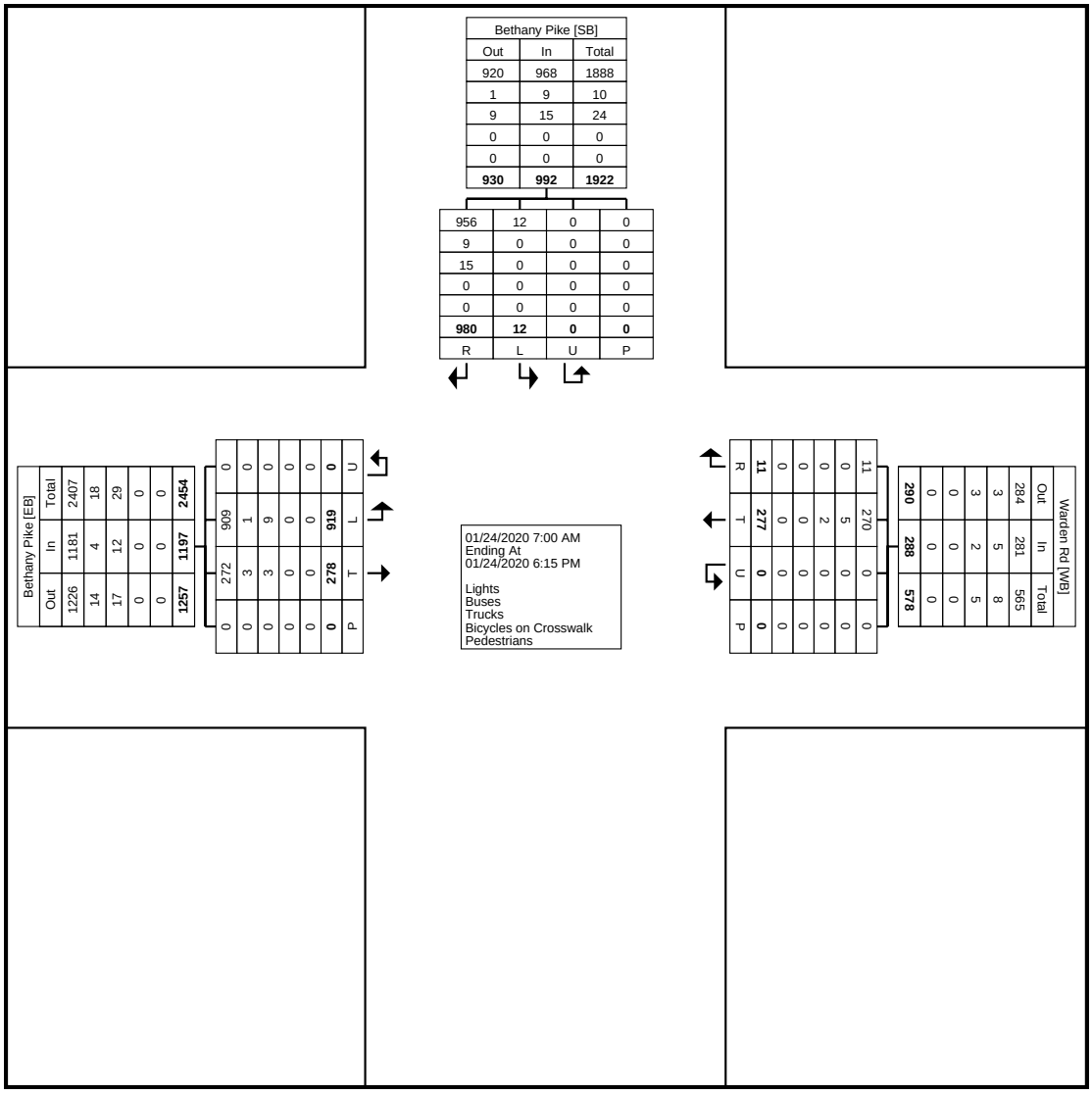
Wheeling, WV
Bethany Pike & Warden
Friday, January 24, 2020
Location: 40.089462, -80.687674

Count Name: Bethany Pike/Warden Rd
Site Code:
Start Date: 01/24/2020



Turning Movement Data Plot

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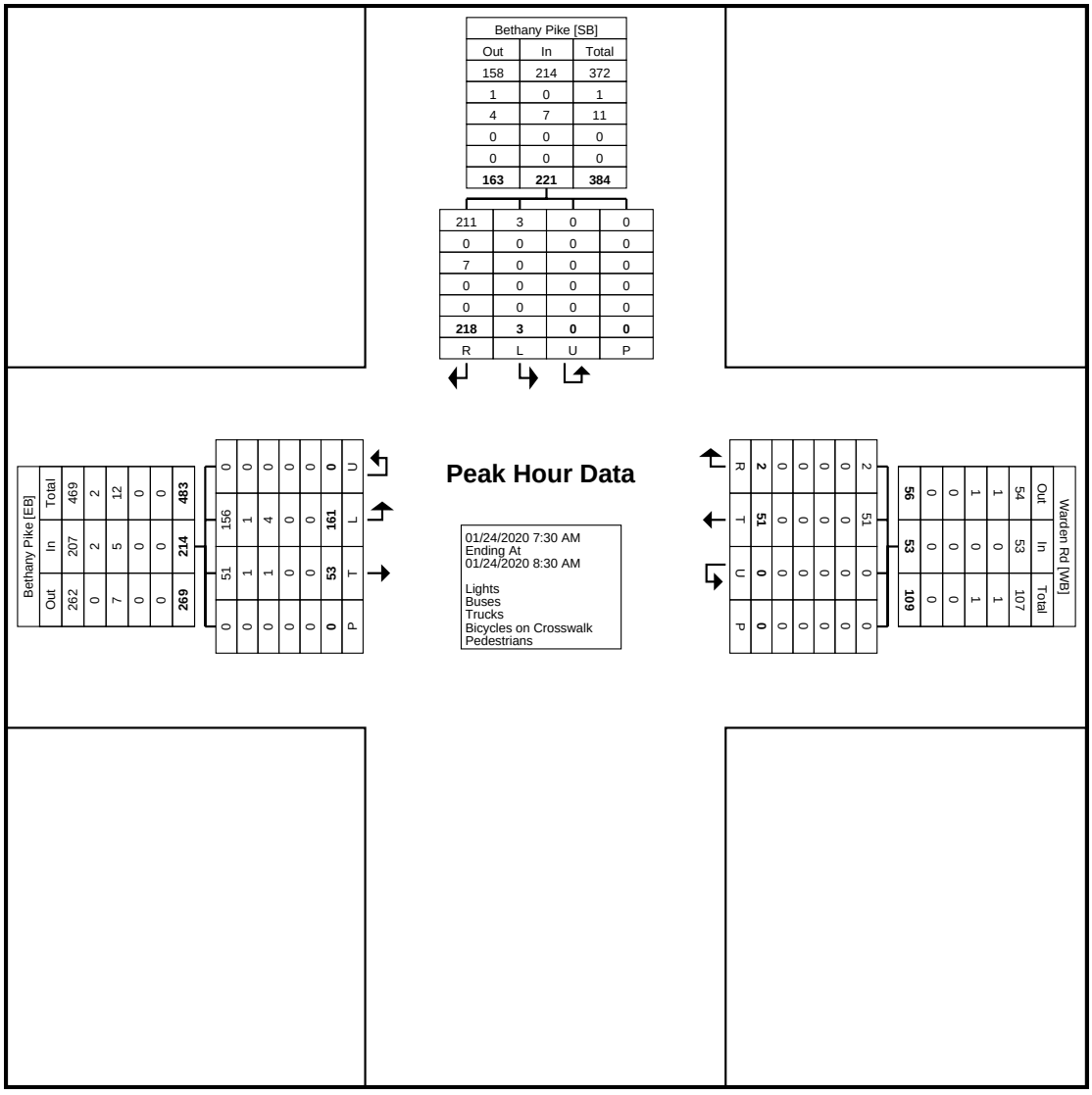
Wheeling, WV
Bethany Pike & Warden
Friday, January 24, 2020
Location: 40.089462, -80.687674

Count Name: Bethany Pike/Warden Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Bethany Pike Eastbound					Warden Rd Westbound					Bethany Pike Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:30 AM	37	10	0	0	47	14	1	0	0	15	0	54	0	0	54	116
7:45 AM	31	17	0	0	48	6	0	0	0	6	1	62	0	0	63	117
8:00 AM	40	16	0	0	56	11	1	0	0	12	1	53	0	0	54	122
8:15 AM	53	10	0	0	63	20	0	0	0	20	1	49	0	0	50	133
Total	161	53	0	0	214	51	2	0	0	53	3	218	0	0	221	488
Approach %	75.2	24.8	0.0	-	-	96.2	3.8	0.0	-	-	1.4	98.6	0.0	-	-	-
Total %	33.0	10.9	0.0	-	43.9	10.5	0.4	0.0	-	10.9	0.6	44.7	0.0	-	45.3	-
PHF	0.759	0.779	0.000	-	0.849	0.638	0.500	0.000	-	0.663	0.750	0.879	0.000	-	0.877	0.917
Lights	156	51	0	-	207	51	2	0	-	53	3	211	0	-	214	474
% Lights	96.9	96.2	-	-	96.7	100.0	100.0	-	-	100.0	100.0	96.8	-	-	96.8	97.1
Buses	1	1	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Buses	0.6	1.9	-	-	0.9	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.4
Trucks	4	1	0	-	5	0	0	0	-	0	0	7	0	-	7	12
% Trucks	2.5	1.9	-	-	2.3	0.0	0.0	-	-	0.0	0.0	3.2	-	-	3.2	2.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (7:30 AM)

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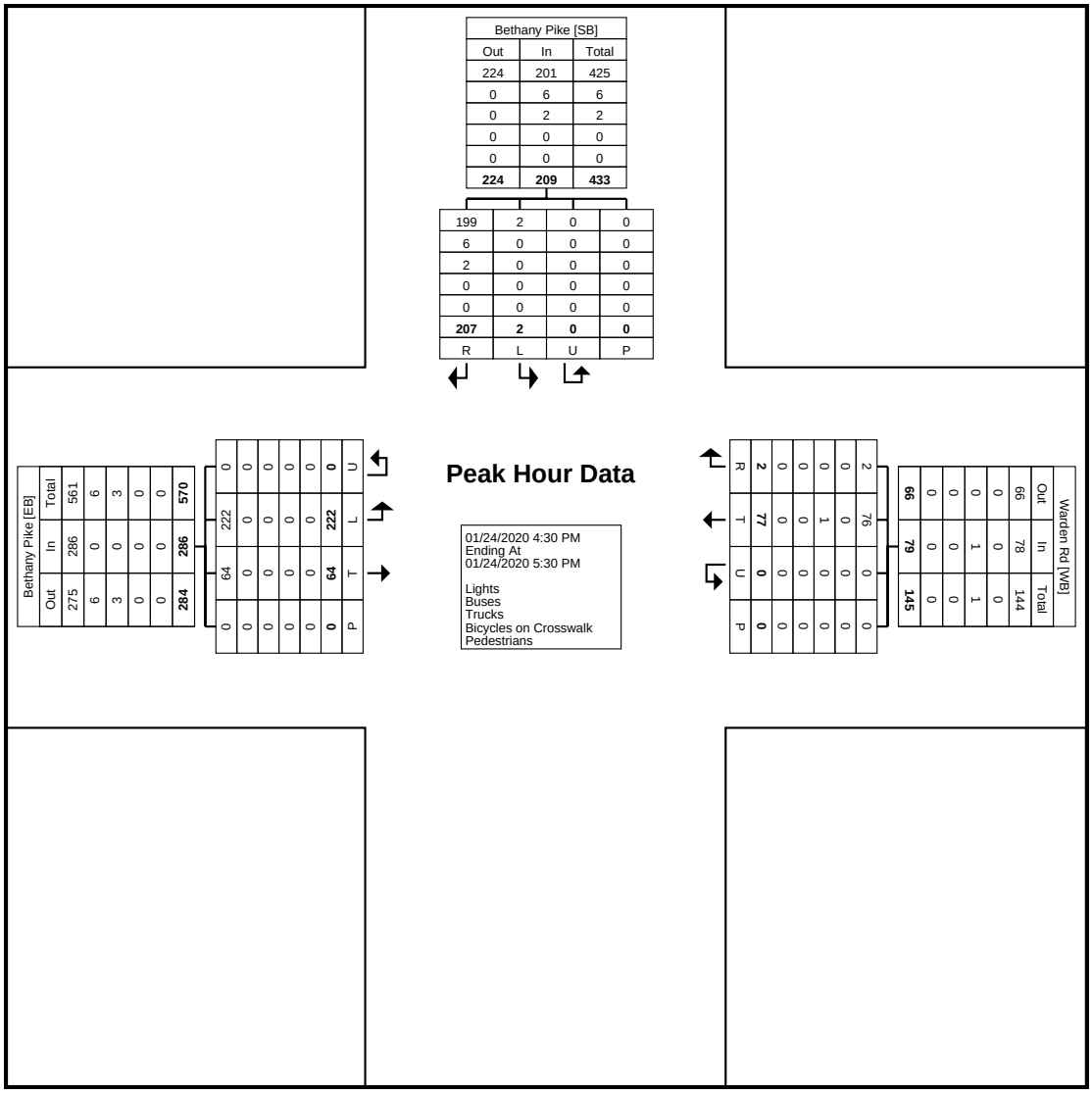
Wheeling, WV
Bethany Pike & Warden
Friday, January 24, 2020
Location: 40.089462, -80.687674

Count Name: Bethany Pike/Warden Rd
Site Code:
Start Date: 01/24/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Bethany Pike Eastbound					Warden Rd Westbound					Bethany Pike Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
4:30 PM	53	10	0	0	63	16	0	0	0	16	0	44	0	0	44	123
4:45 PM	50	14	0	0	64	19	0	0	0	19	0	52	0	0	52	135
5:00 PM	59	20	0	0	79	26	2	0	0	28	2	55	0	0	57	164
5:15 PM	60	20	0	0	80	16	0	0	0	16	0	56	0	0	56	152
Total	222	64	0	0	286	77	2	0	0	79	2	207	0	0	209	574
Approach %	77.6	22.4	0.0	-	-	97.5	2.5	0.0	-	-	1.0	99.0	0.0	-	-	-
Total %	38.7	11.1	0.0	-	49.8	13.4	0.3	0.0	-	13.8	0.3	36.1	0.0	-	36.4	-
PHF	0.925	0.800	0.000	-	0.894	0.740	0.250	0.000	-	0.705	0.250	0.924	0.000	-	0.917	0.875
Lights	222	64	0	-	286	76	2	0	-	78	2	199	0	-	201	565
% Lights	100.0	100.0	-	-	100.0	98.7	100.0	-	-	98.7	100.0	96.1	-	-	96.2	98.4
Buses	0	0	0	-	0	0	0	0	-	0	0	6	0	-	6	6
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	2.9	-	-	2.9	1.0
Trucks	0	0	0	-	0	1	0	0	-	1	0	2	0	-	2	3
% Trucks	0.0	0.0	-	-	0.0	1.3	0.0	-	-	1.3	0.0	1.0	-	-	1.0	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (4:30 PM)

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Wheeling, WV
Bethany Pike & Warden Rd
Saturday, January 25, 2020
Location: 40.089503, -80.687613

Count Name: Bethany Pike/Warden Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Data

Start Time	Bethany Pike Eastbound					Warden Rd Westbound					Bethany Pike Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:00 AM	27	12	0	0	39	12	0	0	0	12	0	33	0	0	33	84
11:15 AM	30	10	0	0	40	12	1	0	0	13	0	46	0	0	46	99
11:30 AM	40	13	0	0	53	15	1	0	0	16	1	51	0	0	52	121
11:45 AM	48	16	0	0	64	15	0	0	0	15	1	29	0	0	30	109
Hourly Total	145	51	0	0	196	54	2	0	0	56	2	159	0	0	161	413
12:00 PM	43	12	0	0	55	12	0	0	0	12	0	29	0	0	29	96
12:15 PM	40	13	0	0	53	12	0	0	0	12	0	47	0	0	47	112
12:30 PM	25	8	0	0	33	16	1	0	0	17	1	50	0	0	51	101
12:45 PM	24	9	0	0	33	8	0	0	0	8	1	56	0	0	57	98
Hourly Total	132	42	0	0	174	48	1	0	0	49	2	182	0	0	184	407
1:00 PM	37	16	0	0	53	13	1	0	0	14	0	46	0	0	46	113
1:15 PM	29	13	0	0	42	4	1	0	0	5	0	36	0	0	36	83
1:30 PM	39	7	0	0	46	8	1	0	0	9	0	41	0	0	41	96
1:45 PM	34	13	0	0	47	7	1	0	0	8	0	29	0	0	29	84
Hourly Total	139	49	0	0	188	32	4	0	0	36	0	152	0	0	152	376
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	416	142	0	0	558	134	7	0	0	141	4	493	0	0	497	1196
Approach %	74.6	25.4	0.0	-	-	95.0	5.0	0.0	-	-	0.8	99.2	0.0	-	-	-
Total %	34.8	11.9	0.0	-	46.7	11.2	0.6	0.0	-	11.8	0.3	41.2	0.0	-	41.6	-
Lights	415	142	0	-	557	133	7	0	-	140	4	485	0	-	489	1186
% Lights	99.8	100.0	-	-	99.8	99.3	100.0	-	-	99.3	100.0	98.4	-	-	98.4	99.2
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	1	0	0	-	1	1	0	0	-	1	0	8	0	-	8	10
% Trucks	0.2	0.0	-	-	0.2	0.7	0.0	-	-	0.7	0.0	1.6	-	-	1.6	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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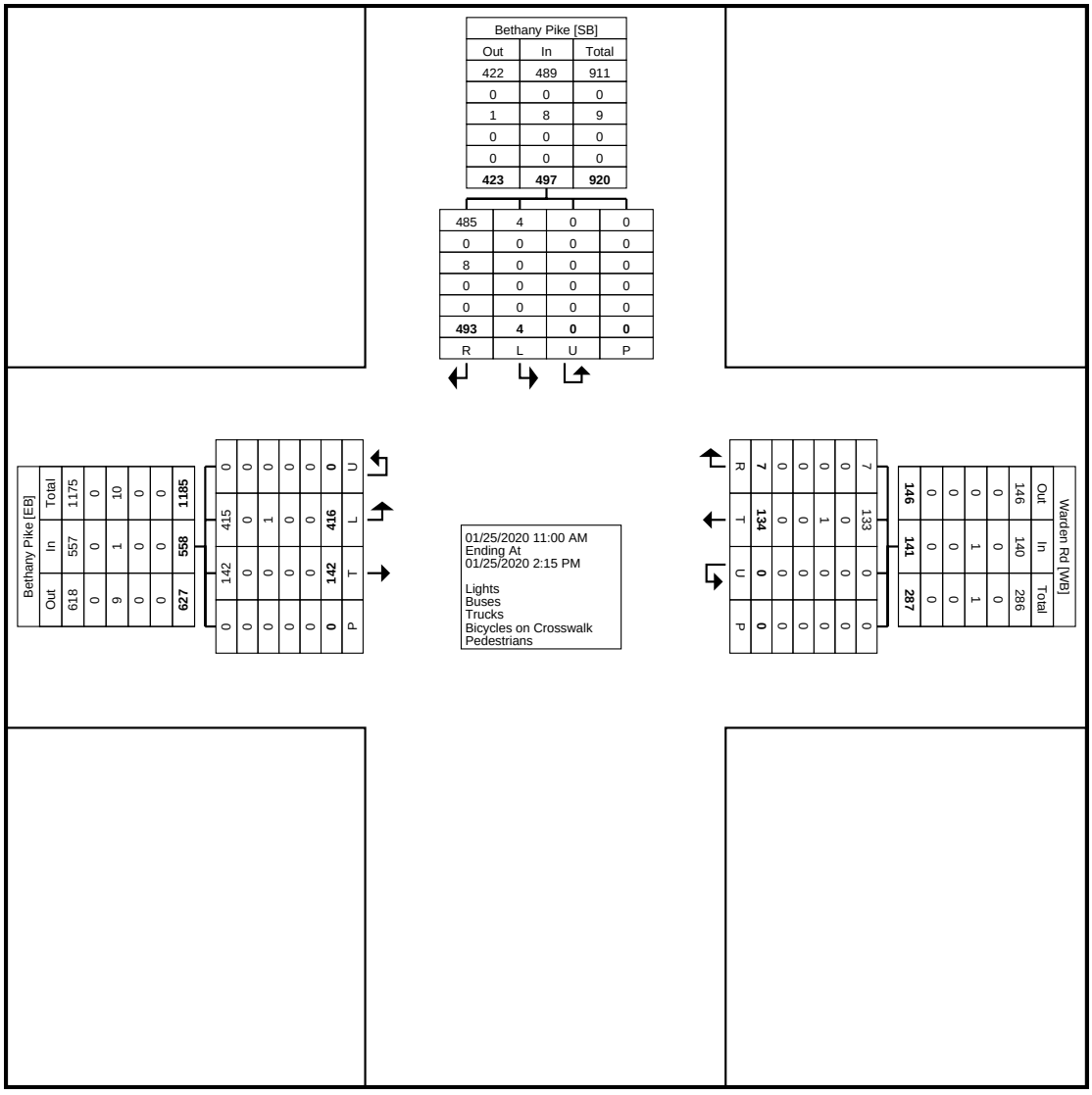
Wheeling, WV
Bethany Pike & Warden Rd
Saturday, January 25, 2020
Location: 40.089503, -80.687613

Count Name: Bethany Pike/Warden Rd SAT
Site Code:
Start Date: 01/25/2020



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Wheeling, WV
Bethany Pike & Warden Rd
Saturday, January 25, 2020
Location: 40.089503, -80.687613

Count Name: Bethany Pike/Warden Rd SAT
Site Code:
Start Date: 01/25/2020

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Bethany Pike Eastbound					Warden Rd Westbound					Bethany Pike Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:30 AM	40	13	0	0	53	15	1	0	0	16	1	51	0	0	52	121
11:45 AM	48	16	0	0	64	15	0	0	0	15	1	29	0	0	30	109
12:00 PM	43	12	0	0	55	12	0	0	0	12	0	29	0	0	29	96
12:15 PM	40	13	0	0	53	12	0	0	0	12	0	47	0	0	47	112
Total	171	54	0	0	225	54	1	0	0	55	2	156	0	0	158	438
Approach %	76.0	24.0	0.0	-	-	98.2	1.8	0.0	-	-	1.3	98.7	0.0	-	-	-
Total %	39.0	12.3	0.0	-	51.4	12.3	0.2	0.0	-	12.6	0.5	35.6	0.0	-	36.1	-
PHF	0.891	0.844	0.000	-	0.879	0.900	0.250	0.000	-	0.859	0.500	0.765	0.000	-	0.760	0.905
Lights	171	54	0	-	225	54	1	0	-	55	2	151	0	-	153	433
% Lights	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0	96.8	-	-	96.8	98.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	5	0	-	5	5
% Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	3.2	-	-	3.2	1.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Wheeling, WV
Bethany Pike & Warden Rd
Saturday, January 25, 2020
Location: 40.089503, -80.687613

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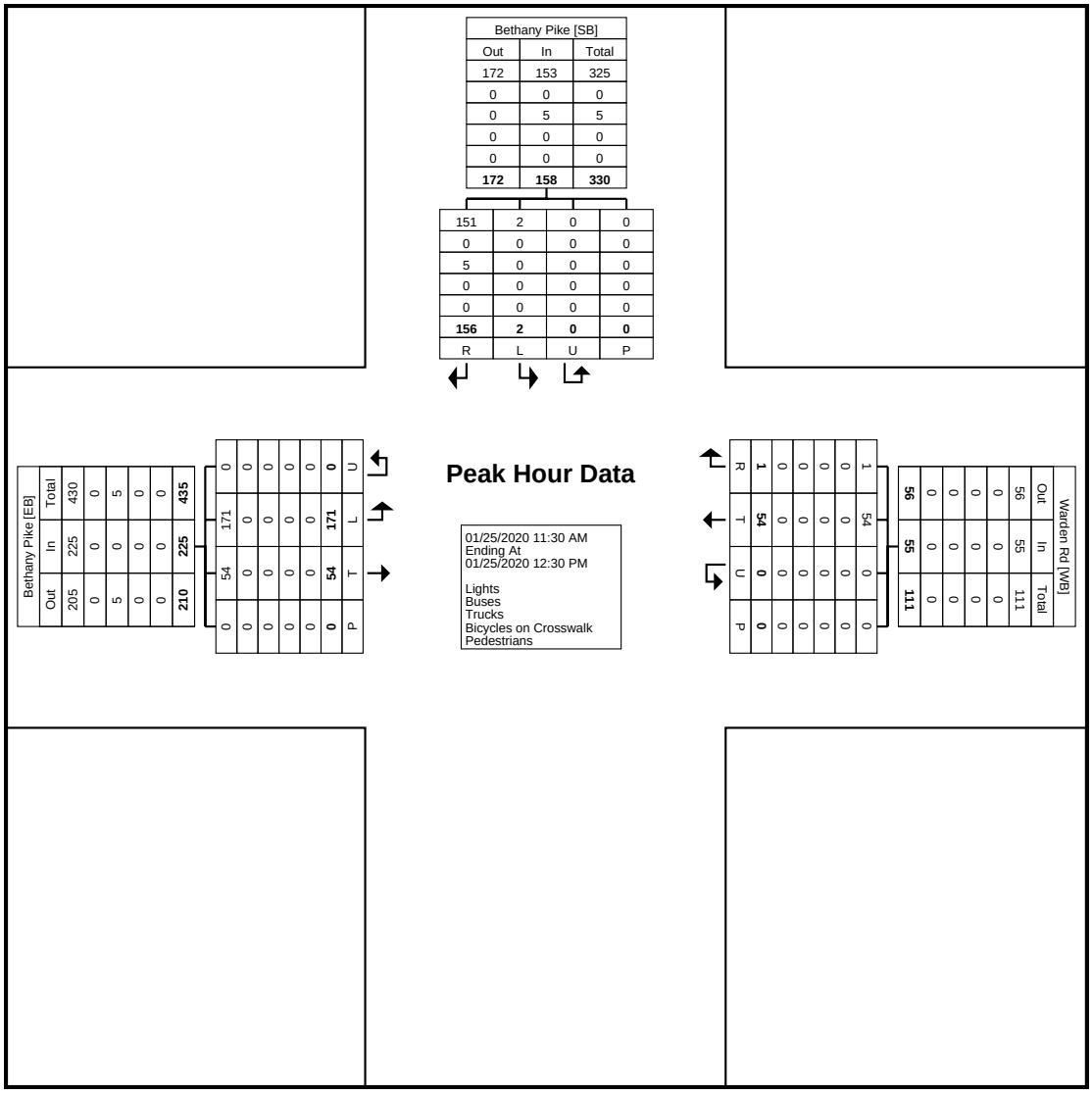


Turning Movement Peak Hour Data Plot (11:30 AM)

Direction	Movement	2020 Existing Observed Traffic Volumes[1]		
		AM Peak Hour (7:30-8:30 AM)[2]	PM Peak Hour (3:00-4:00 PM)[2]	Saturday Peak Hour (11:30 AM to 12:30 PM)[2]
INTERSECTION	**US 40 (NATIONAL ROAD) AND LEATHERWOOD LANE/GAS STATION DRIVEWAY**			
US 40 (NATIONAL RD) Eastbound	Left Turn	11	3	5
	Right Turn	87	56	40
US 40 (NATIONAL RD) Westbound	Left Turn	45	34	24
	Right Turn	11	13	2
LEATHERWOOD LANE Northbound	Left Turn	7	40	53
	Through	0	0	1
	Right Turn	15	31	26
MARATHON DRIVEWAY Southbound	Left Turn	4	7	7
	Through	1	1	0
	Right Turn	31	30	12

(1) Turning movement counts based on Miovision videos cunducted at the intersection of US 40 and Park Avenue/TJ's Driveway

(2) Peak Hours were determined to be the same as the intersection of US 40 and Park Avenue/TJ's Driveway

Bethany Pike North of US 40 2014-07

Hour of Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	average	pct
0		78	92					85	0.6
1		43	36					39.5	0.3
2		20	28					24	0.2
3		30	34					32	0.2
4		61	56					58.5	0.4
5		204	207					205	1.5
6		459	478					468	3.4
7		800	828					814	6
8		865	920					892	6.5
9	538	776	227					513	5.6
10	734	712						723	5.3
11	803	816						809	5.9
12	892	834						863	6.3
13	915	909						912	6.7
14	892	916						904	6.6
15	1008	1049						1028	7.5
16	1067	1039						1053	7.7
17	1066	1092						1079	7.9
18	764	820						792	5.8
19	592	604						598	4.4
20	604	626						615	4.5
21	406	498						452	3.3
22	247	290						268	2
23	158	166						162	1.2
sum	10686	13707	2906						
pct	39.1	50.2	10.6	0	0	0	0		

Bethany Pike North of US 40 2014-07

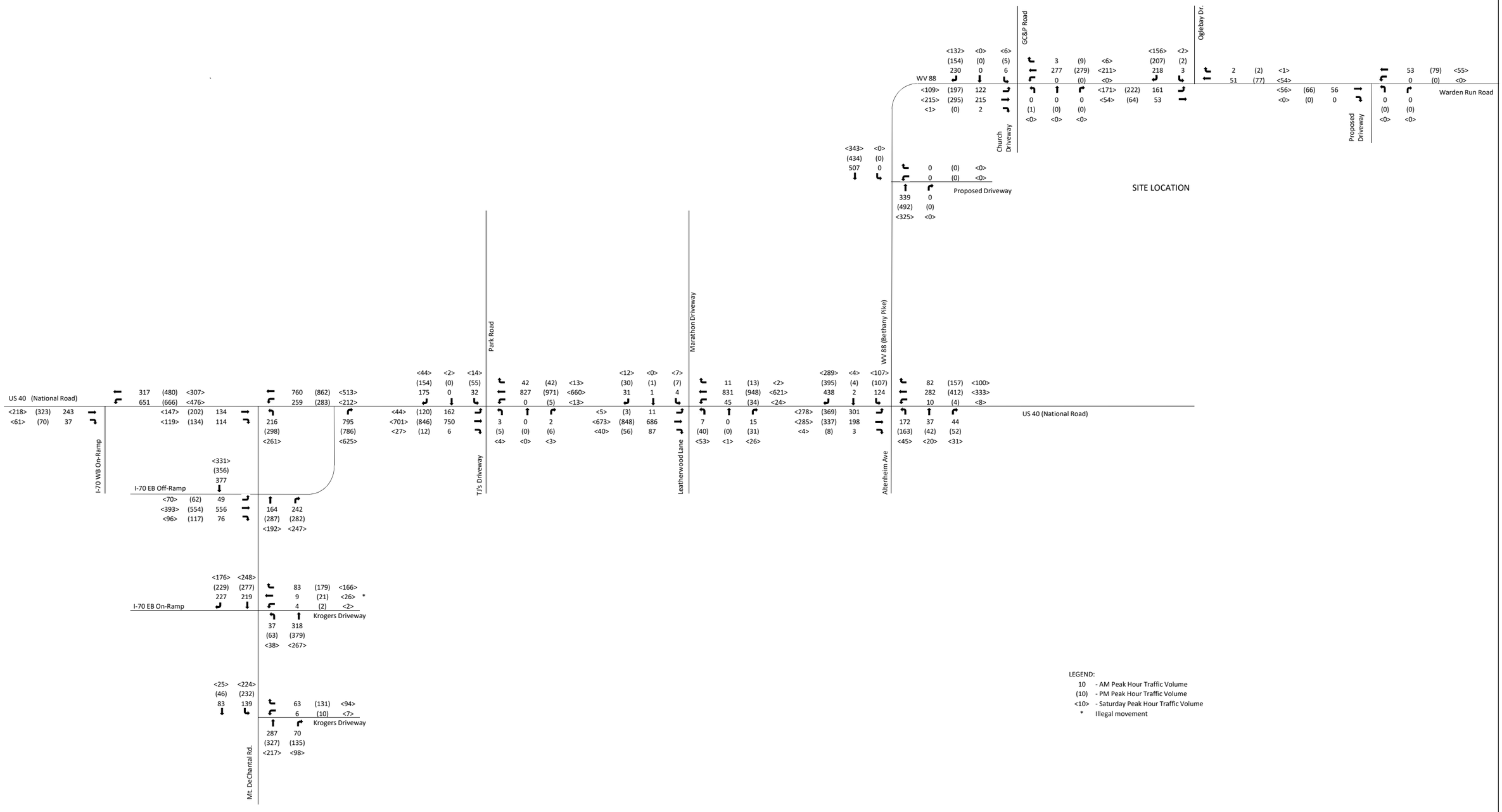
hr	Ch 1: North Lane 1	Ch 2: South Lane 1	sum
2014-07-21 09	229	309	538
2014-07-21 10	359	375	734
2014-07-21 11	398	405	803
2014-07-21 12	414	478	892
2014-07-21 13	426	489	915
2014-07-21 14	440	452	892
2014-07-21 15	494	514	1008
2014-07-21 16	531	536	1067
2014-07-21 17	577	489	1066
2014-07-21 18	419	345	764
2014-07-21 19	307	285	592
2014-07-21 20	351	253	604
2014-07-21 21	232	174	406
2014-07-21 22	154	93	247
2014-07-21 23	86	72	158
2014-07-22 00	44	34	78
2014-07-22 01	26	17	43
2014-07-22 02	12	8	20
2014-07-22 03	21	9	30
2014-07-22 04	36	25	61
2014-07-22 05	90	114	204
2014-07-22 06	193	266	459
2014-07-22 07	370	430	800
2014-07-22 08	380	485	865
2014-07-22 09	326	450	776
2014-07-22 10	337	375	712
2014-07-22 11	376	440	816
2014-07-22 12	396	438	834
2014-07-22 13	451	458	909
2014-07-22 14	461	455	916
2014-07-22 15	478	571	1049
2014-07-22 16	541	498	1039
2014-07-22 17	601	491	1092
2014-07-22 18	422	398	820
2014-07-22 19	323	281	604
2014-07-22 20	354	272	626
2014-07-22 21	290	208	498
2014-07-22 22	179	111	290
2014-07-22 23	100	66	166
2014-07-23 00	50	42	92
2014-07-23 01	23	13	36
2014-07-23 02	21	7	28
2014-07-23 03	25	9	34
2014-07-23 04	29	27	56
2014-07-23 05	98	109	207
2014-07-23 06	196	282	478
2014-07-23 07	355	473	828
2014-07-23 08	408	512	920
2014-07-23 09	105	122	227
sum	13534	13765	
count	49	49	

US 40 East of Bethany Pike starting 2017-11-07

Hour of Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	average	pct
0		115	116					115	1.1
1		46	54					50	0.5
2		27	36					31.5	0.3
3		20	21					20.5	0.2
4		28	16					22	0.2
5		31	34					32.5	0.3
6		83	94					88.5	0.8
7		272	257					264	2.4
8		585	618					601	5.5
9		712	751					731	6.7
10		604	610					607	5.6
11		568	610					589	5.4
12		658	688					673	6.2
13		775	816					795	7.3
14		699	752					725	6.7
15		700	745					722	6.6
16		855	921					888	8.2
17		918	873					895	8.2
18		905	954					929	8.5
19		762	759					760	7
20		496	542					519	4.8
21		369	419					394	3.6
22		265	269					267	2.5
23		163	169					166	1.5
sum		10656	11124						
pct	0	48.9	51.1	0	0	0	0		

US 40 East of Bethany Pike starting 2017-11-07

hr	Ch 1: East Lane 1	Ch 2: West Lane 1	sum
2017-11-07 00	59	56	115
2017-11-07 01	24	22	46
2017-11-07 02	15	12	27
2017-11-07 03	11	9	20
2017-11-07 04	16	12	28
2017-11-07 05	12	19	31
2017-11-07 06	36	47	83
2017-11-07 07	126	146	272
2017-11-07 08	250	335	585
2017-11-07 09	314	398	712
2017-11-07 10	333	271	604
2017-11-07 11	302	266	568
2017-11-07 12	356	302	658
2017-11-07 13	388	387	775
2017-11-07 14	386	313	699
2017-11-07 15	373	327	700
2017-11-07 16	433	422	855
2017-11-07 17	487	431	918
2017-11-07 18	507	398	905
2017-11-07 19	438	324	762
2017-11-07 20	246	250	496
2017-11-07 21	215	154	369
2017-11-07 22	142	123	265
2017-11-07 23	83	80	163
2017-11-08 00	59	57	116
2017-11-08 01	21	33	54
2017-11-08 02	22	14	36
2017-11-08 03	15	6	21
2017-11-08 04	6	10	16
2017-11-08 05	11	23	34
2017-11-08 06	40	54	94
2017-11-08 07	119	138	257
2017-11-08 08	295	323	618
2017-11-08 09	364	387	751
2017-11-08 10	309	301	610
2017-11-08 11	293	317	610
2017-11-08 12	360	328	688
2017-11-08 13	454	362	816
2017-11-08 14	397	355	752
2017-11-08 15	422	323	745
2017-11-08 16	468	453	921
2017-11-08 17	474	399	873
2017-11-08 18	539	415	954
2017-11-08 19	430	329	759
2017-11-08 20	316	226	542
2017-11-08 21	241	178	419
2017-11-08 22	141	128	269
2017-11-08 23	89	80	169
sum	11437	10343	
count	48	48	



LEGEND:

10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume
* Illegal movement

STAHL SHEAFFER ENGINEERING

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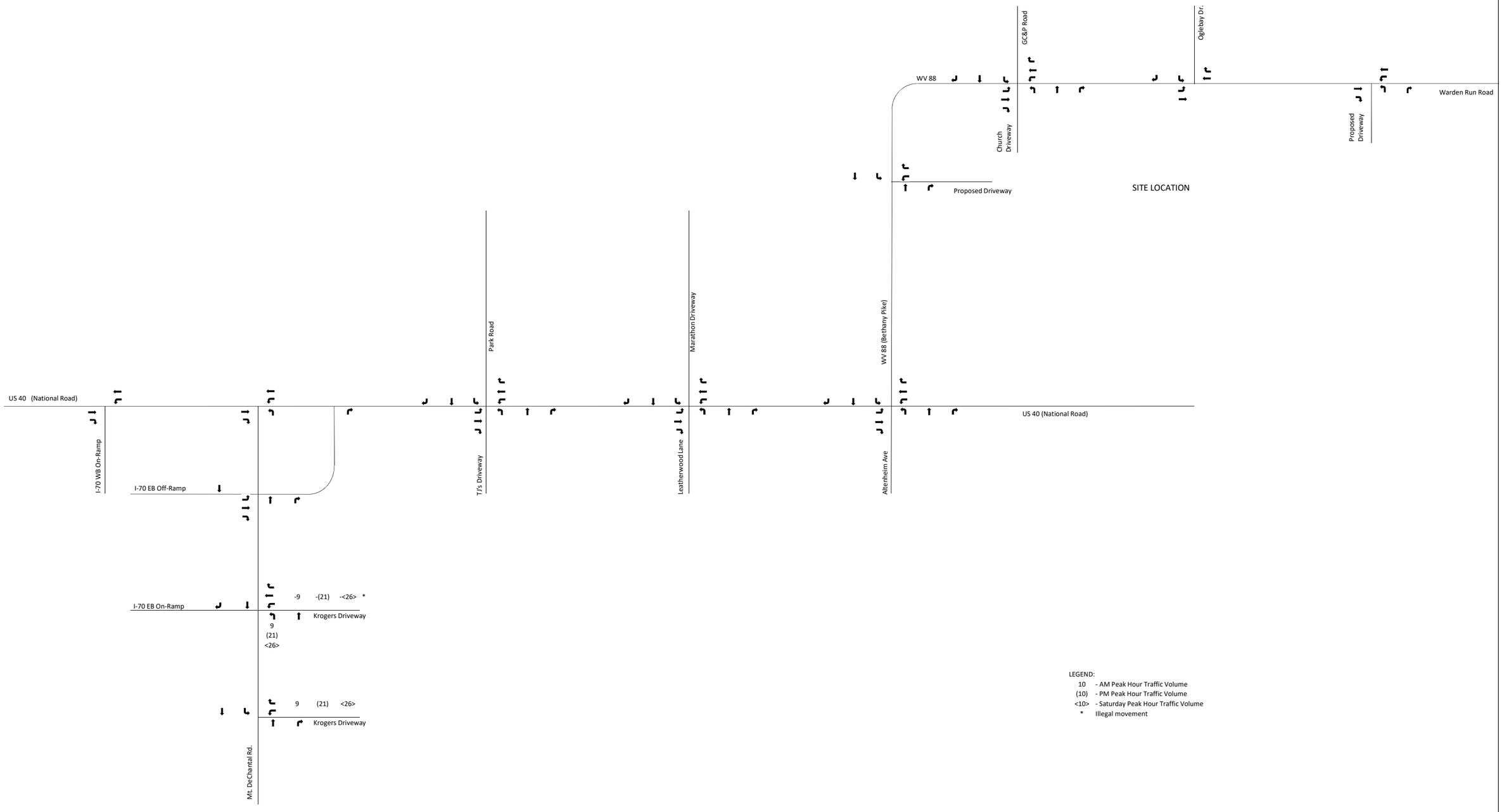
GC&P BETHANY PIKE (WV 88) MIXED-USE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2020 Existing Conditions
Peak Hour Traffic Volumes (No Rerouting or Balancing)

DATE:	MAR 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	4
SCALE:	NTS



LEGEND:
- 10 - AM Peak Hour Traffic Volume
- (10) - PM Peak Hour Traffic Volume
- <10> - Saturday Peak Hour Traffic Volume
- * Illegal movement

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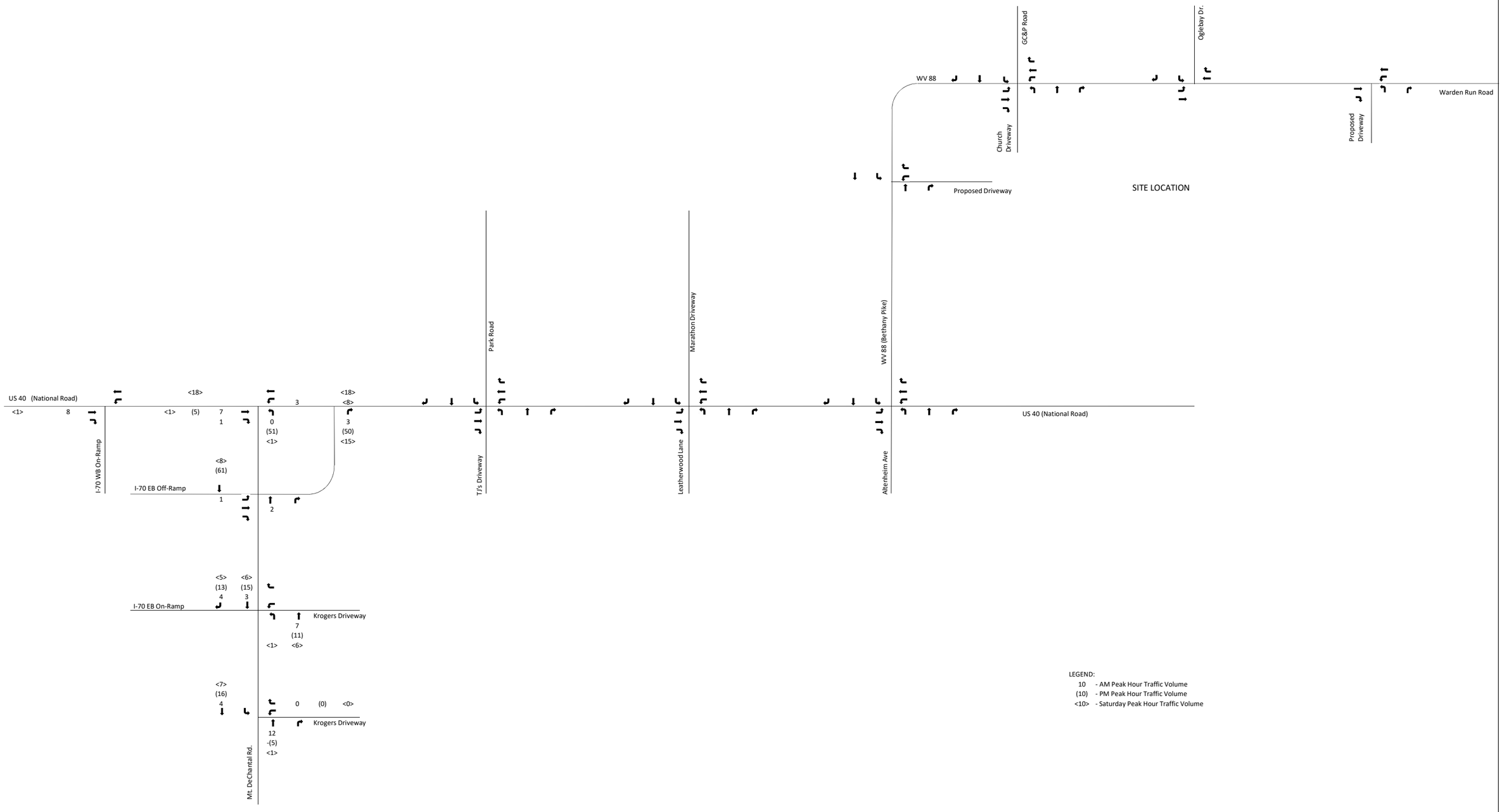
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

Rerouted Illegal Movements

DATE:	MAR 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	5
SCALE:	NTS



LEGEND:
10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume

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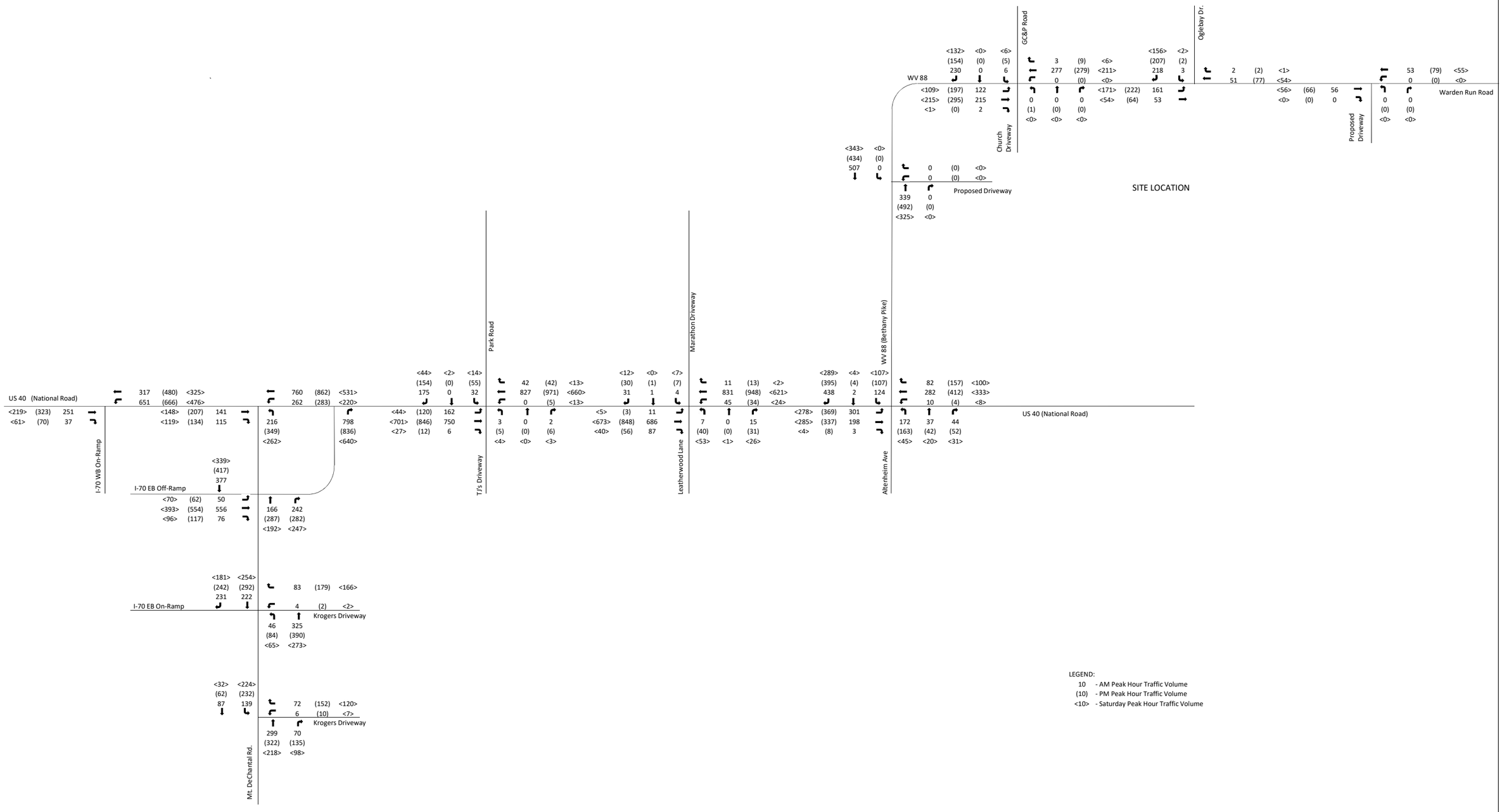
GC&P BETHANY PIKE (WV 88) MIXED-USE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2020 Existing Conditions
Balanced Volumes

DATE:	MAR 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	6
SCALE:	NTS



LEGEND:

10 - AM Peak Hour Traffic Volume
(10) - PM Peak Hour Traffic Volume
<10> - Saturday Peak Hour Traffic Volume

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GC&P BETHANY PIKE (WV 88) MIXED-USE DEVELOPMENT
TRAFFIC IMPACT STUDY
CITY OF WHEELING, OHIO COUNTY

2020 Existing Conditions
Peak Hour Traffic Volumes

DATE:	MAR 2020
PROJECT NO.:	19-609
DRAWN BY:	ABF
CHECKED BY:	MDS
FIGURE:	4
SCALE:	NTS

STAHL SHEAFFER ENGINEERING

Appendix E. Level of Service Definitions

Intersection Levels of Service (LOS) Definitions

Level of Service A – 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.

Level of Service B – 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.

Level of Service C – 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.

Level of Service D – 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.

Level of Service E – 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.

Level of Service F – LOS F describes operations with control delay exceeding 80s/veh when the 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 Criteria

Level of Service	Signalized Intersections Control Delay (s./veh.)	Unignalized Intersections Control Delay (s./veh.)
A	0 - 10	0 - 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source : *Highway Capacity Manual, 2010 Edition.*

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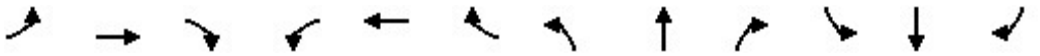
Appendix F. 2020 Existing Conditions Synchro Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	301	198	3	10	282	82	172	37	44	124	2	438
Future Volume (vph)	301	198	3	10	282	82	172	37	44	124	2	438
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.99
Frt		0.997			0.967			0.976				0.850
Flt Protected	0.950				0.999			0.967			0.953	
Satd. Flow (prot)	1693	1683	0	0	3362	0	0	1713	0	0	1793	1584
Flt Permitted	0.338				0.945			0.647			0.634	
Satd. Flow (perm)	602	1683	0	0	3180	0	0	1144	0	0	1193	1560
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			36			10				515
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			2	2			2					2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	11%	0%	0%	3%	2%	1%	0%	2%	2%	0%	3%
Adj. Flow (vph)	354	233	4	12	332	96	202	44	52	146	2	515
Shared Lane Traffic (%)												
Lane Group Flow (vph)	354	237	0	0	440	0	0	298	0	0	148	515
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			4	
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	17.0
Total Split (s)	20.0	50.0		30.0	30.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	21.1%	52.6%		31.6%	31.6%		26.3%	26.3%		26.3%	26.3%	26.3%
Maximum Green (s)	15.0	45.0		25.0	25.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	46.0	46.0			26.6			20.0			20.0	20.0
Actuated g/C Ratio	0.48	0.48			0.28			0.21			0.21	0.21
v/c Ratio	0.78	0.29			0.48			1.20			0.59	0.70
Control Delay	31.6	17.0			28.3			156.8			44.6	8.9
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	31.6	17.0			28.3			156.8			44.6	8.9
LOS	C	B			C			F			D	A
Approach Delay		25.8			28.3			156.8			16.9	
Approach LOS		C			C			F			B	
Queue Length 50th (ft)	209	129			106			~216			81	0
Queue Length 95th (ft)	277	193			143			#350			137	61
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	463	815			915			248			251	735
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.76	0.29			0.48			1.20			0.59	0.70

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 46 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	Ped
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

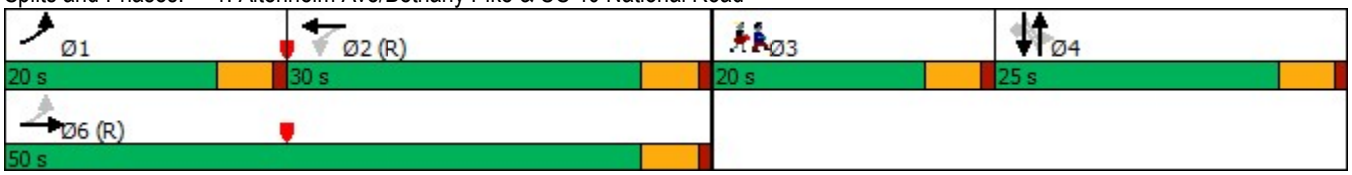
Intersection Summary

Intersection Signal Delay: 43.0	Intersection LOS: D
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

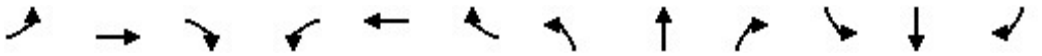
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	215	2	0	277	3	0	0	0	6	0	230
Future Volume (vph)	122	215	2	0	277	3	0	0	0	6	0	230
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999						0.869	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	0%	0%	3%	0%	0%	0%	0%	17%	0%	2%
Adj. Flow (vph)	136	239	2	0	308	3	0	0	0	7	0	256
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	241	0	0	311	0	0	0	0	0	263	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.5%		ICU Level of Service B	
Analysis Period (min) 15			

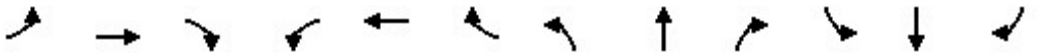
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	215	2	0	277	3	0	0	0	6	0	230
Future Vol, veh/h	122	215	2	0	277	3	0	0	0	6	0	230
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	2	0	0	3	0	0	0	0	17	0	2
Mvmt Flow	136	239	2	0	308	3	0	0	0	7	0	256

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	312	0	0	241	0	0	950	824	240	823	824	311
Stage 1	-	-	-	-	-	-	512	512	-	311	311	-
Stage 2	-	-	-	-	-	-	438	312	-	512	513	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.5	6.9	6.4	7.07	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.3	3.653	4	3.318
Pot Cap-1 Maneuver	1221	-	-	1337	-	-	218	283	793	289	325	735
Stage 1	-	-	-	-	-	-	518	510	-	680	673	-
Stage 2	-	-	-	-	-	-	573	639	-	533	555	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1220	-	-	1337	-	-	130	251	793	264	289	734
Mov Cap-2 Maneuver	-	-	-	-	-	-	130	251	-	264	289	-
Stage 1	-	-	-	-	-	-	461	453	-	604	672	-
Stage 2	-	-	-	-	-	-	373	638	-	474	493	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	0	0	13.2
HCM LOS			A	B

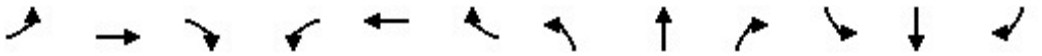
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1220	-	-	1337	-	-	702
HCM Lane V/C Ratio	-	0.111	-	-	-	-	-	0.374
HCM Control Delay (s)	0	8.3	-	-	0	-	-	13.2
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	1.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	215	2	0	277	3	0	0	0	6	0	230
Future Volume (Veh/h)	122	215	2	0	277	3	0	0	0	6	0	230
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	136	239	2	0	308	3	0	0	0	7	0	256
Pedestrians											1	
Lane Width (ft)											11.0	
Walking Speed (ft/s)											3.5	
Percent Blockage											0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	312			241			1078	824	240	822	824	310
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	312			241			1078	824	240	822	824	310
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.7	4.0	3.3
p0 queue free %	89			100			100	100	100	97	100	65
cM capacity (veh/h)	1219			1337			117	275	804	253	276	729

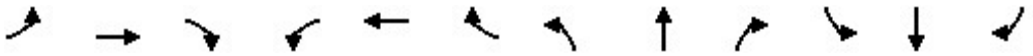
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	136	241	311	0	263
Volume Left	136	0	0	0	7
Volume Right	0	2	3	0	256
cSH	1219	1700	1337	1700	694
Volume to Capacity	0.11	0.14	0.00	0.00	0.38
Queue Length 95th (ft)	9	0	0	0	44
Control Delay (s)	8.3	0.0	0.0	0.0	13.3
Lane LOS	A			A	B
Approach Delay (s)	3.0		0.0	0.0	13.3
Approach LOS				A	B

Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	55.5%	ICU Level of Service		B
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	750	6	0	827	42	3	0	2	32	0	175
Future Volume (vph)	162	750	6	0	827	42	3	0	2	32	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.999			0.993			0.955				0.850
Flt Protected	0.950							0.968			0.950	
Satd. Flow (prot)	1787	3427	0	1900	3482	0	0	1664	0	0	1911	1689
Flt Permitted	0.117							0.846			0.754	
Satd. Flow (perm)	220	3427	0	1900	3482	0	0	1455	0	0	1516	1689
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			6			172				206
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)			5	5								
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	1%	5%	33%	0%	3%	2%	33%	0%	0%	6%	0%	1%
Adj. Flow (vph)	191	882	7	0	973	49	4	0	2	38	0	206
Shared Lane Traffic (%)												
Lane Group Flow (vph)	191	889	0	0	1022	0	0	6	0	0	38	206
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	16.0	42.0					15.0	15.0		15.0	15.0	15.0
Total Split (%)	16.8%	44.2%					15.8%	15.8%		15.8%	15.8%	15.8%
Maximum Green (s)	11.0	37.0					10.0	10.0		10.0	10.0	10.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	44.0	44.0			43.2			10.0			10.0	10.0
Actuated g/C Ratio	0.46	0.46			0.45			0.11			0.11	0.11
v/c Ratio	0.72	0.56			0.64			0.02			0.24	0.57
Control Delay	36.2	18.2			2.2			0.2			43.2	12.6
Queue Delay	0.0	0.0			1.1			0.0			0.0	0.0
Total Delay	36.2	18.2			3.3			0.2			43.2	12.6
LOS	D	B			A			A			D	B
Approach Delay		21.4			3.3			0.2			17.4	
Approach LOS		C			A			A			B	
Queue Length 50th (ft)	65	177			6			0			21	0
Queue Length 95th (ft)	122	204			m12			0			49	53
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	283	1587			1585			307			159	362
Starvation Cap Reductn	0	0			320			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.67	0.56			0.81			0.02			0.24	0.57

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

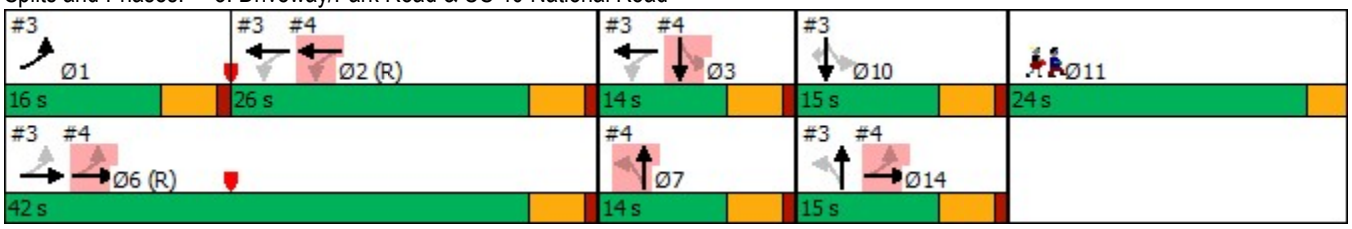
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	26.0	14.0	14.0	24.0
Total Split (%)	27%	15%	15%	25%
Maximum Green (s)	21.0	9.0	9.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	Ped
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				1
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

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

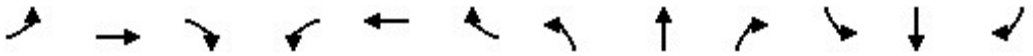
Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	686	87	45	831	11	7	0	15	4	1	31
Future Volume (vph)	11	686	87	45	831	11	7	0	15	4	1	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.998			0.907			0.884	
Flt Protected		0.999		0.950				0.985			0.994	
Satd. Flow (prot)	0	3388	0	1770	3498	0	0	1656	0	0	1637	0
Flt Permitted		0.887		0.310				0.901			0.964	
Satd. Flow (perm)	0	3008	0	577	3498	0	0	1515	0	0	1587	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			1			172			36	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	5%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	13	807	102	53	978	13	8	0	18	5	1	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	922	0	53	991	0	0	26	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				26.0	26.0		14.0	14.0		14.0	14.0	
Total Split (%)				27.4%	27.4%		14.7%	14.7%		14.7%	14.7%	
Maximum Green (s)				21.0	21.0		9.0	9.0		9.0	9.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		54.0		29.2	29.2			9.0			9.0	
Actuated g/C Ratio		0.57		0.31	0.31			0.09			0.09	
v/c Ratio		0.54		0.30	0.92			0.09			0.23	
Control Delay		2.6		35.1	47.5			0.6			19.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		2.6		35.1	47.5			0.6			19.4	
LOS		A		D	D			A			B	
Approach Delay		2.6			46.8			0.6			19.4	
Approach LOS		A			D			A			B	
Queue Length 50th (ft)		16		28	313			0			3	
Queue Length 95th (ft)		2		m45	m#342			0			32	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		1718		177	1075			299			182	
Starvation Cap Reductn		5		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.54		0.30	0.92			0.09			0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 49.9%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	16.0	42.0	15.0	24.0	15.0
Total Split (%)	17%	44%	16%	25%	16%
Maximum Green (s)	11.0	37.0	10.0	21.0	10.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	Ped	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				1	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

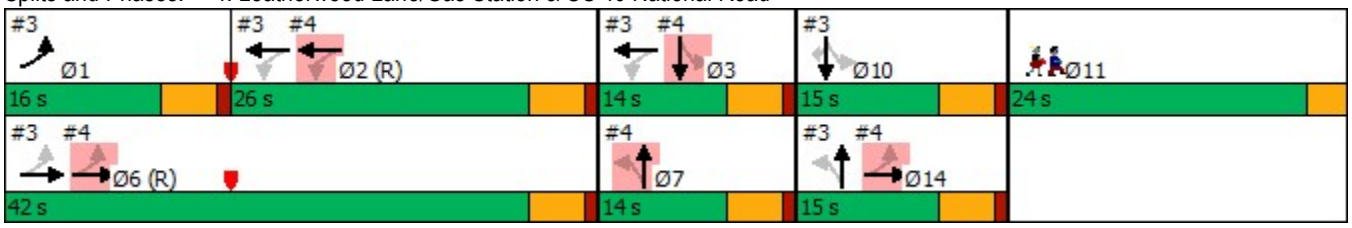
Intersection Summary

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: 4: Leatherwood Lane/Gas Station & US 40 National Road



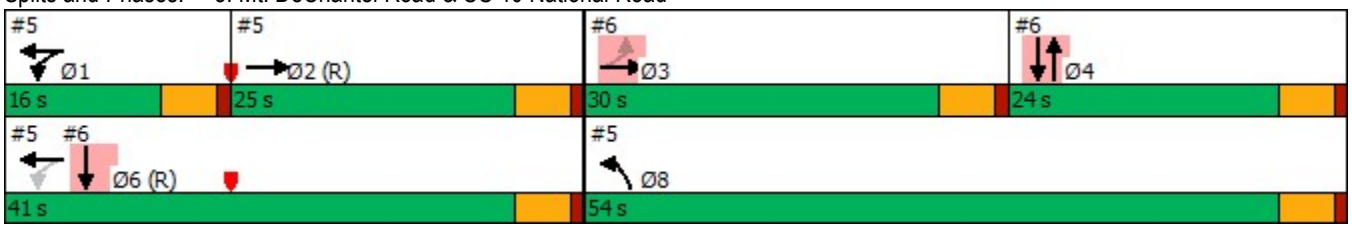
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	141	115	262	760	216	0			
Future Volume (vph)	141	115	262	760	216	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.933								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3034	0	1652	3388	3271	0			
Flt Permitted			0.429		0.950				
Satd. Flow (perm)	3034	0	746	3388	3271	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	128								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Heavy Vehicles (%)	10%	4%	2%	3%	4%	0%			
Adj. Flow (vph)	157	128	291	844	240	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	285	0	291	844	240	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

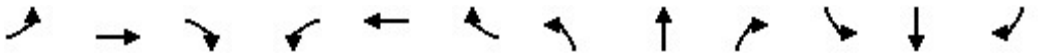
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	25.0		16.0		54.0		30.0	24.0	41.0
Total Split (%)	26.3%		16.8%		56.8%		32%	25%	43%
Maximum Green (s)	20.0		11.0		49.0		25.0	19.0	36.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	21.2		37.2	37.2	47.8				
Actuated g/C Ratio	0.22		0.39	0.39	0.50				
v/c Ratio	0.37		0.73	0.64	0.15				
Control Delay	18.8		35.5	29.0	4.6				
Queue Delay	0.0		0.0	0.0	1.2				
Total Delay	18.8		35.5	29.0	5.8				
LOS	B		D	C	A				
Approach Delay	18.8			30.6	5.8				
Approach LOS	B			C	A				
Queue Length 50th (ft)	41		182	281	14				
Queue Length 95th (ft)	78		#289	349	m14				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	776		397	1327	1687				
Starvation Cap Reductn	0		0	0	1222				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.37		0.73	0.64	0.52				

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
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: 5: Mt. DeChantel Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.



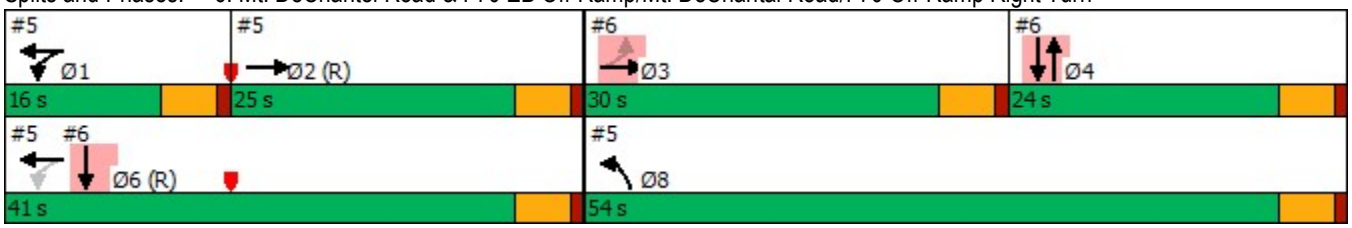
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	556	76	0	0	0	0	166	242	0	377	0
Future Volume (vph)	50	556	76	0	0	0	0	166	242	0	377	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983						0.911				
Flt Protected		0.996										
Satd. Flow (prot)	0	3435	0	0	0	0	0	3237	0	0	2080	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3435	0	0	0	0	0	3237	0	0	2080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						278				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)							2					2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	4%	0%	0%	0%	0%	5%	5%	5%	0%	3%	0%
Adj. Flow (vph)	57	639	87	0	0	0	0	191	278	0	433	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	783	0	0	0	0	0	469	0	0	433	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	30.0	30.0						24.0				
Total Split (%)	31.6%	31.6%						25.3%				
Maximum Green (s)	25.0	25.0						19.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		24.5						18.3			60.5	
Actuated g/C Ratio		0.26						0.19			0.64	
v/c Ratio		0.87						0.55			0.33	
Control Delay		45.2						23.9			2.5	
Queue Delay		0.0						0.0			1.6	
Total Delay		45.2						23.9			4.0	
LOS		D						C			A	
Approach Delay		45.2						23.9			4.0	
Approach LOS		D						C			A	
Queue Length 50th (ft)		232						77			18	
Queue Length 95th (ft)		#298						111			37	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		914						869			1318	
Starvation Cap Reductn		0						0			681	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.86						0.54			0.68	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 28.7		Intersection LOS: C	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

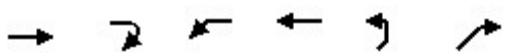
Splits and Phases: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	16.0	25.0	41.0	54.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	11.0	20.0	36.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.



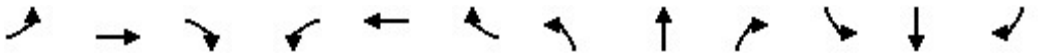
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	141	0	0	1022	0	798
Future Volume (vph)	141	0	0	1022	0	798
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	2963	0	0	4398	0	2470
Flt Permitted						
Satd. Flow (perm)	2963	0	0	4398	0	2470
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	9%	0%	0%	2%	0%	4%
Adj. Flow (vph)	166	0	0	1202	0	939
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	0	0	1202	0	939
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	141	0	0	1022	0	798
Future Volume (Veh/h)	141	0	0	1022	0	798
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	166	0	0	1202	0	939
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.92	
vC, conflicting volume			166		567	83
vC1, stage 1 conf vol					166	
vC2, stage 2 conf vol					401	
vCu, unblocked vol			166		229	83
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	2
cM capacity (veh/h)			1424		790	953

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	83	83	401	401	401	470	470
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	470	470
cSH	1700	1700	1700	1700	1700	953	953
Volume to Capacity	0.05	0.05	0.24	0.24	0.24	0.49	0.49
Queue Length 95th (ft)	0	0	0	0	0	70	70
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	12.4	12.4
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			12.4	
Approach LOS						B	

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	4	0	83	46	325	0	0	222	231
Future Volume (vph)	0	0	0	4	0	83	46	325	0	0	222	231
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.931	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	5%	0%	0%	1%	5%
Adj. Flow (vph)	0	0	0	4	0	92	51	361	0	0	247	257
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	4	0	92	51	361	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

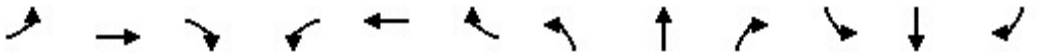
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	83	46	325	0	0	222	231
Future Vol, veh/h	0	0	0	4	0	83	46	325	0	0	222	231
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	2	3	5	0	0	1	5
Mvmt Flow	0	0	0	4	0	92	51	361	0	0	247	257

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	839	-	361	504	0	-	-	-	0	
Stage 1	463	-	-	-	-	-	-	-	-	
Stage 2	376	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.13	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.227	-	-	-	-	-	
Pot Cap-1 Maneuver	355	0	690	1055	-	0	0	-	-	
Stage 1	654	0	-	-	-	0	0	-	-	
Stage 2	713	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	338	0	690	1055	-	-	-	-	-	
Mov Cap-2 Maneuver	338	0	-	-	-	-	-	-	-	
Stage 1	623	0	-	-	-	-	-	-	-	
Stage 2	713	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	11.2	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1055	-	338	690	-	-
HCM Lane V/C Ratio	0.048	-	0.013	0.134	-	-
HCM Control Delay (s)	8.6	-	15.8	11	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	4	0	83	46	325	0	0	222	231
Future Volume (Veh/h)	0	0	0	4	0	83	46	325	0	0	222	231
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	4	0	92	51	361	0	0	247	257
Pedestrians					2							
Lane Width (ft)					15.0							
Walking Speed (ft/s)					3.5							
Percent Blockage					0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.91	0.91	0.90	0.91	0.91	0.96	0.90			0.96		
vC, conflicting volume	838	840	376	840	969	363	504			363		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	689	691	246	691	831	321	389			321		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	87	95			100		
cM capacity (veh/h)	276	321	715	317	267	693	1044			1203		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	4	92	51	361	504
Volume Left	4	0	51	0	0
Volume Right	0	92	0	0	257
cSH	317	693	1044	1700	1700
Volume to Capacity	0.01	0.13	0.05	0.21	0.30
Queue Length 95th (ft)	1	11	4	0	0
Control Delay (s)	16.5	11.0	8.6	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	11.2		1.1		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	45.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	72	299	70	139	87
Future Volume (vph)	6	72	299	70	139	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1652	1783	1714	1856	1997
Flt Permitted	0.950				0.507	
Satd. Flow (perm)	1787	1652	1783	1676	990	1997
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		81		79		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Confl. Peds. (#/hr)				2	2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	6%	0%	0%	1%
Adj. Flow (vph)	7	81	336	79	156	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	81	336	79	156	98
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex

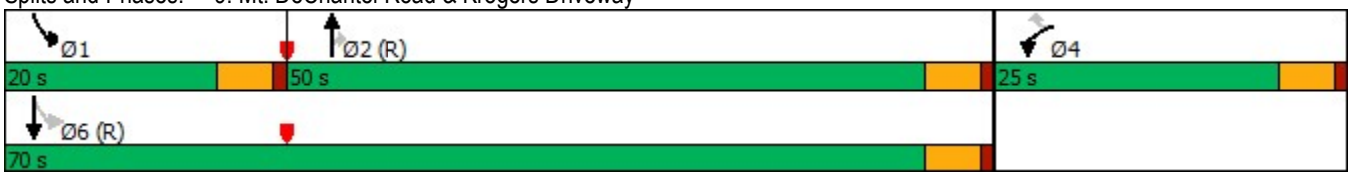
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	50.0	50.0	20.0	70.0
Total Split (%)	26.3%	26.3%	52.6%	52.6%	21.1%	73.7%
Maximum Green (s)	20.0	20.0	45.0	45.0	15.0	65.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.7	8.7	67.6	67.6	78.8	79.8
Actuated g/C Ratio	0.09	0.09	0.71	0.71	0.83	0.84
v/c Ratio	0.04	0.36	0.27	0.07	0.18	0.06
Control Delay	38.7	14.0	6.5	1.6	1.6	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	14.0	6.5	1.6	1.6	1.3
LOS	D	B	A	A	A	A
Approach Delay	16.0		5.6			1.5
Approach LOS	B		A			A
Queue Length 50th (ft)	4	0	66	0	4	2
Queue Length 95th (ft)	16	41	124	15	m20	m13
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	376	411	1267	1214	958	1678
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.27	0.07	0.16	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 60 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	

Analysis Period (min) 15

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	72	299	70	139	87
Future Volume (veh/h)	6	72	299	70	139	87
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1952	1805	1970	1970	1954
Adj Flow Rate, veh/h	7	81	336	79	156	98
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	6	0	0	1
Cap, veh/h	118	109	1308	1208	849	1620
Arrive On Green	0.07	0.07	0.72	0.72	0.09	1.00
Sat Flow, veh/h	1787	1654	1805	1667	1876	1954
Grp Volume(v), veh/h	7	81	336	79	156	98
Grp Sat Flow(s),veh/h/ln	1787	1654	1805	1667	1876	1954
Q Serve(g_s), s	0.3	4.6	6.0	1.3	1.8	0.0
Cycle Q Clear(g_c), s	0.3	4.6	6.0	1.3	1.8	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	118	109	1308	1208	849	1620
V/C Ratio(X)	0.06	0.74	0.26	0.07	0.18	0.06
Avail Cap(c_a), veh/h	376	348	1308	1208	1048	1620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	43.6	4.4	3.8	2.4	0.0
Incr Delay (d2), s/veh	0.4	19.0	0.5	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.1	0.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.1	62.6	4.9	3.9	2.5	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	88		415			254
Approach Delay, s/veh	61.0		4.7			1.5
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	73.8		11.3		83.7
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	45.0		20.0		65.0
Max Q Clear Time (g_c+I1), s	3.8	8.0		6.6		2.0
Green Ext Time (p_c), s	0.2	5.3		0.4		1.2

Intersection Summary	
HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	251	37	651	317	0	0
Future Volume (vph)	251	37	651	317	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.981					
Flt Protected				0.967		
Satd. Flow (prot)	2987	0	0	3023	0	0
Flt Permitted				0.967		
Satd. Flow (perm)	2987	0	0	3023	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	7%	0%	3%	4%	0%	0%
Adj. Flow (vph)	289	43	748	364	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	332	0	0	1112	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	251	37	651	317	0	0
Future Volume (Veh/h)	251	37	651	317	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	289	43	748	364	0	0
Pedestrians					2	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.80	
vC, conflicting volume			291		1990	168
vC1, stage 1 conf vol					312	
vC2, stage 2 conf vol					1678	
vCu, unblocked vol			291		1741	168
tC, single (s)			4.2		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			41		100	100
cM capacity (veh/h)			1260		66	853

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	193	139	869	243
Volume Left	0	0	748	0
Volume Right	0	43	0	0
cSH	1700	1700	1260	1700
Volume to Capacity	0.11	0.08	0.59	0.14
Queue Length 95th (ft)	0	0	103	0
Control Delay (s)	0.0	0.0	11.3	0.0
Lane LOS			B	
Approach Delay (s)	0.0		8.9	
Approach LOS				

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	2	161	53	3	218
Future Volume (vph)	51	2	161	53	3	218
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.966			
Flt Protected	0.954					0.999
Satd. Flow (prot)	1589	0	1606	0	0	1563
Flt Permitted	0.954					0.999
Satd. Flow (perm)	1589	0	1606	0	0	1563
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	3%	4%	0%	3%
Adj. Flow (vph)	55	2	175	58	3	237
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	0	233	0	0	240
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	2	161	53	3	218
Future Vol, veh/h	51	2	161	53	3	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	4	0	3
Mvmt Flow	55	2	175	58	3	237

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	447	204	0	0	233	0
Stage 1	204	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	532	828	-	-	1346	-
Stage 1	807	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	530	828	-	-	1346	-
Mov Cap-2 Maneuver	530	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	768	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	537	1346	-
HCM Lane V/C Ratio	-	-	0.107	0.002	-
HCM Control Delay (s)	-	-	12.5	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	51	2	161	53	3	218
Future Volume (Veh/h)	51	2	161	53	3	218
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	2	175	58	3	237
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	447	204			233	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	447	204			233	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	100			100	
cM capacity (veh/h)	571	842			1346	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	57	233	240
Volume Left	55	0	3
Volume Right	2	58	0
cSH	578	1700	1346
Volume to Capacity	0.10	0.14	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	11.9	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	11.9	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	339	0	0	507
Future Volume (vph)	0	0	339	0	0	507
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	377	0	0	563
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	377	0	0	563
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	339	0	0	507
Future Vol, veh/h	0	0	339	0	0	507
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	377	0	0	563

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	940	377	0	0	377	0
Stage 1	377	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	293	670	-	-	1181	-
Stage 1	694	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	293	670	-	-	1181	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	570	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1181	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	56	0	0	53	0	0
Future Volume (vph)	56	0	0	53	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	62	0	0	59	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	59	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 6.7%		ICU Level of Service A	
Analysis Period (min) 15			

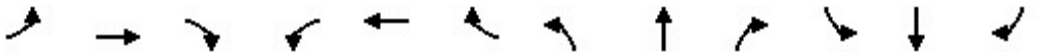
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	0	0	53	0	0
Future Vol, veh/h	56	0	0	53	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	0	0	59	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	62	0	121	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1541	-	874	1003
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1541	-	874	1003
Mov Cap-2 Maneuver	-	-	-	-	874	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	964	-

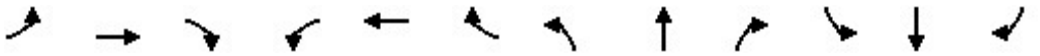
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1541	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	369	337	8	4	412	157	163	42	52	107	4	395
Future Volume (vph)	369	337	8	4	412	157	163	42	52	107	4	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99				0.98
Frt		0.996			0.959			0.973				0.850
Flt Protected	0.950							0.969			0.954	
Satd. Flow (prot)	1760	1810	0	0	3370	0	0	1718	0	0	1813	1553
Flt Permitted	0.305				0.953			0.697			0.607	
Satd. Flow (perm)	565	1810	0	0	3211	0	0	1228	0	0	1154	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			47			10				425
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			1	1			9					9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	2%	1%	1%	0%	0%	1%	0%	5%
Adj. Flow (vph)	397	362	9	4	443	169	175	45	56	115	4	425
Shared Lane Traffic (%)												
Lane Group Flow (vph)	397	371	0	0	616	0	0	276	0	0	119	425
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.0	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	76.2	76.2			52.6			25.0			25.0	43.6
Actuated g/C Ratio	0.66	0.66			0.46			0.22			0.22	0.38
v/c Ratio	0.70	0.31			0.41			1.01			0.48	0.50
Control Delay	27.8	9.4			22.3			100.3			46.6	4.0
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	27.8	9.4			22.3			100.3			46.6	4.0
LOS	C	A			C			F			D	A
Approach Delay		19.0			22.3			100.3			13.3	
Approach LOS		B			C			F			B	
Queue Length 50th (ft)	129	90			136			~201			77	0
Queue Length 95th (ft)	253	162			258			#380			139	55
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	613	1199			1495			274			250	889
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.65	0.31			0.41			1.01			0.48	0.48

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

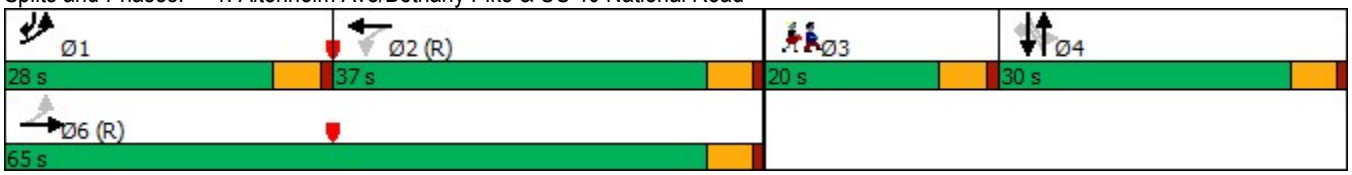
Intersection Summary

Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

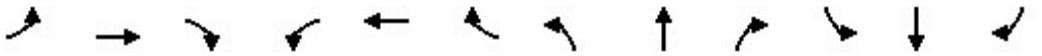
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	295	0	0	279	9	1	0	0	5	0	154
Future Volume (vph)	197	295	0	0	279	9	1	0	0	5	0	154
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996						0.869	
Flt Protected	0.950							0.950			0.998	
Satd. Flow (prot)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Flt Permitted	0.950							0.950			0.998	
Satd. Flow (perm)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	224	335	0	0	317	10	1	0	0	6	0	175
Shared Lane Traffic (%)												
Lane Group Flow (vph)	224	335	0	0	327	0	0	1	0	0	181	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.2%		ICU Level of Service B	
Analysis Period (min) 15			

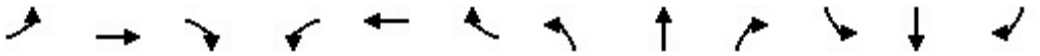
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	197	295	0	0	279	9	1	0	0	5	0	154
Future Vol, veh/h	197	295	0	0	279	9	1	0	0	5	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	224	335	0	0	317	10	1	0	0	6	0	175

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	327	0	0	335	0	0	1193	1110	335	1105	1105	322
Stage 1	-	-	-	-	-	-	783	783	-	322	322	-
Stage 2	-	-	-	-	-	-	410	327	-	783	783	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1244	-	-	1236	-	-	145	187	698	202	226	725
Stage 1	-	-	-	-	-	-	357	373	-	707	666	-
Stage 2	-	-	-	-	-	-	595	628	-	407	426	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1244	-	-	1236	-	-	95	153	698	174	185	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	95	153	-	174	185	-
Stage 1	-	-	-	-	-	-	293	306	-	580	666	-
Stage 2	-	-	-	-	-	-	451	628	-	334	349	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0	43.4	12.5
HCM LOS			E	B

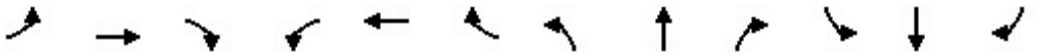
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	95	1244	-	-	1236	-	-	659
HCM Lane V/C Ratio	0.012	0.18	-	-	-	-	-	0.274
HCM Control Delay (s)	43.4	8.5	-	-	0	-	-	12.5
HCM Lane LOS	E	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.7	-	-	0	-	-	1.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	295	0	0	279	9	1	0	0	5	0	154
Future Volume (Veh/h)	197	295	0	0	279	9	1	0	0	5	0	154
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	224	335	0	0	317	10	1	0	0	6	0	175
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	327			335			1280	1110	335	1105	1105	322
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	327			335			1280	1110	335	1105	1105	322
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	82			100			99	100	100	96	100	76
cM capacity (veh/h)	1244			1236			94	173	711	164	174	719

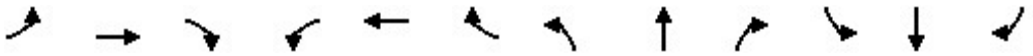
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	224	335	327	1	181
Volume Left	224	0	0	1	6
Volume Right	0	0	10	0	175
cSH	1244	1700	1236	94	646
Volume to Capacity	0.18	0.20	0.00	0.01	0.28
Queue Length 95th (ft)	16	0	0	1	29
Control Delay (s)	8.5	0.0	0.0	43.8	12.7
Lane LOS	A			E	B
Approach Delay (s)	3.4		0.0	43.8	12.7
Approach LOS				E	B

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	55.2%	ICU Level of Service		B
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	846	12	5	971	42	5	0	6	55	0	154
Future Volume (vph)	120	846	12	5	971	42	5	0	6	55	0	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00			1.00				0.99
Frt		0.998			0.994			0.921				0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1752	3531	0	1805	3515	0	0	1982	0	0	2025	1705
Flt Permitted	0.175			0.303				0.915			0.750	
Satd. Flow (perm)	323	3531	0	572	3515	0	0	1850	0	0	1599	1682
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			142				169
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		16	16		1	1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	132	930	13	5	1067	46	5	0	7	60	0	169
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	943	0	5	1113	0	0	12	0	0	60	169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	71.3	71.3		73.9	73.9			17.7			17.7	17.7
Actuated g/C Ratio	0.62	0.62		0.64	0.64			0.15			0.15	0.15
v/c Ratio	0.43	0.43		0.01	0.49			0.03			0.24	0.42
Control Delay	13.8	10.6		0.4	1.1			0.1			45.5	9.9
Queue Delay	0.0	0.0		0.0	0.1			0.0			0.0	0.0
Total Delay	13.8	10.6		0.4	1.3			0.1			45.5	9.9
LOS	B	B		A	A			A			D	A
Approach Delay		11.0			1.3			0.1			19.2	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	33	152		0	8			0			39	0
Queue Length 95th (ft)	65	183		m0	9			0			81	61
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	386	2188		367	2259			409			250	405
Starvation Cap Reductn	0	0		0	298			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.34	0.43		0.01	0.57			0.03			0.24	0.42

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

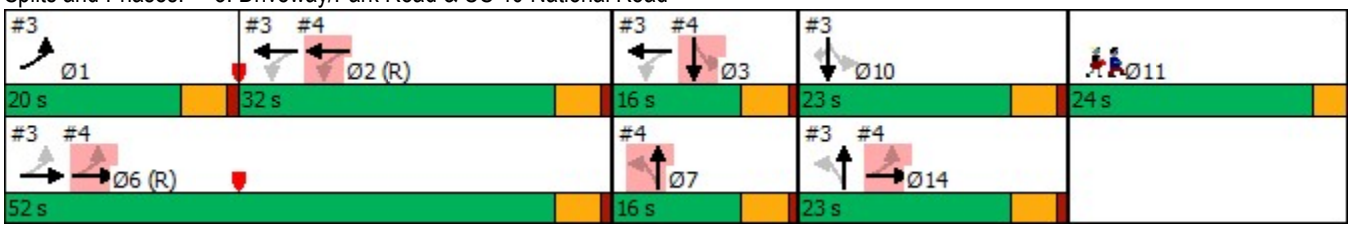
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

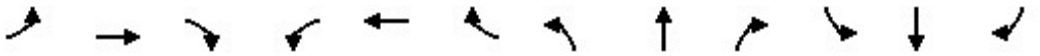
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road

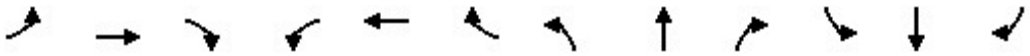


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	848	56	34	948	13	40	0	31	7	1	30
Future Volume (vph)	3	848	56	34	948	13	40	0	31	7	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.998			0.941			0.894	
Flt Protected				0.950				0.973			0.991	
Satd. Flow (prot)	0	3507	0	1770	3532	0	0	1697	0	0	1650	0
Flt Permitted		0.953		0.069				0.845			0.951	
Satd. Flow (perm)	0	3343	0	129	3532	0	0	1474	0	0	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			1			142			33	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	932	62	37	1042	14	44	0	34	8	1	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	997	0	37	1056	0	0	78	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6 14			2			7			3	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	1	6	10	11	14



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.0		57.9	57.9			11.0			11.0	
Actuated g/C Ratio		0.82		0.50	0.50			0.10			0.10	
v/c Ratio		0.36		0.57	0.59			0.29			0.23	
Control Delay		1.3		52.7	18.8			2.7			23.8	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.4		52.7	18.8			2.7			23.8	
LOS		A		D	B			A			C	
Approach Delay		1.4			19.9			2.7			23.8	
Approach LOS		A			B			A			C	
Queue Length 50th (ft)		4		13	201			0			6	
Queue Length 95th (ft)		0		m#65	m253			1			42	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2713		65	1777			269			181	
Starvation Cap Reductn		558		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.46		0.57	0.59			0.29			0.23	

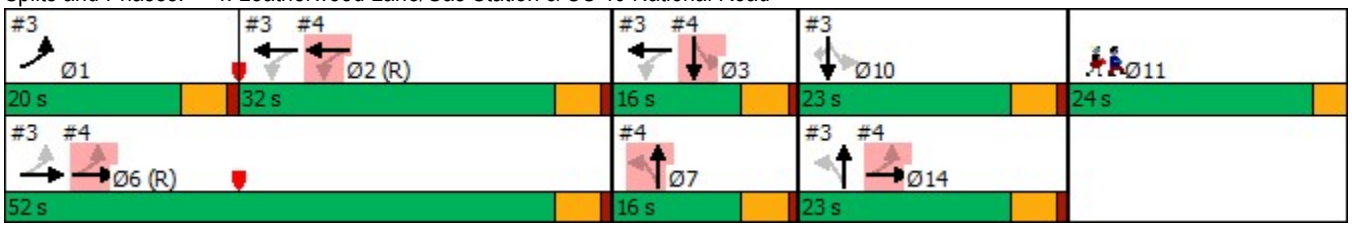
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



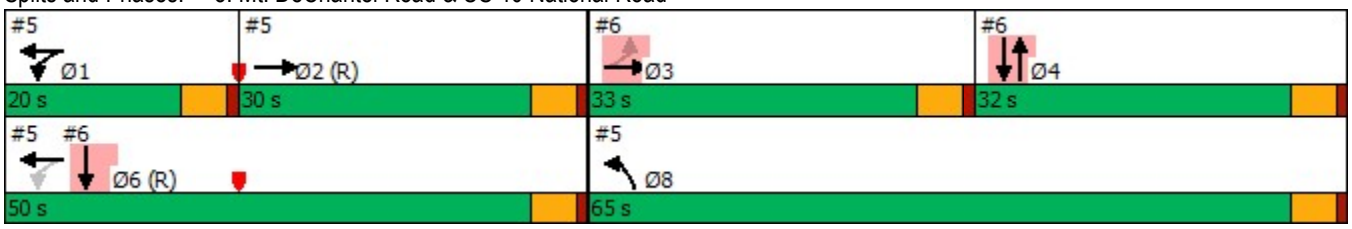
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	207	134	283	862	349	0			
Future Volume (vph)	207	134	283	862	349	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.941								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3140	0	1636	3455	3240	0			
Flt Permitted			0.339		0.950				
Satd. Flow (perm)	3140	0	584	3455	3240	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	118								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Heavy Vehicles (%)	3%	7%	3%	1%	5%	0%			
Adj. Flow (vph)	233	151	318	969	392	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	384	0	318	969	392	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

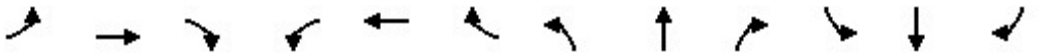
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	26.6		46.6	46.6	58.4				
Actuated g/C Ratio	0.23		0.41	0.41	0.51				
v/c Ratio	0.47		0.85	0.69	0.24				
Control Delay	28.7		65.6	43.3	5.9				
Queue Delay	0.0		0.0	0.0	1.8				
Total Delay	28.7		65.6	43.3	7.6				
LOS	C		E	D	A				
Approach Delay	28.7			48.8	7.6				
Approach LOS	C			D	A				
Queue Length 50th (ft)	90		198	285	26				
Queue Length 95th (ft)	137		#338	396	m27				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	816		373	1399	1690				
Starvation Cap Reductn	0		0	0	1106				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.47		0.85	0.69	0.67				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 37.2		Intersection LOS: D	
Intersection Capacity Utilization 48.2%		ICU Level of Service A	
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: 5: Mt. DeChantel Road & US 40 National Road

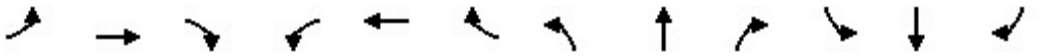


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	554	117	0	0	0	0	287	282	0	417	0
Future Volume (vph)	62	554	117	0	0	0	0	287	282	0	417	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99				
Frt		0.976						0.926				
Flt Protected		0.996										
Satd. Flow (prot)	0	3476	0	0	0	0	0	3323	0	0	2101	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3475	0	0	0	0	0	3323	0	0	2101	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						202				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)	4		4	4		4	7		5	5		7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	1%	0%	0%	0%	0%	0%	5%	1%	0%	2%	0%
Adj. Flow (vph)	65	583	123	0	0	0	0	302	297	0	439	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	771	0	0	0	0	0	599	0	0	439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		27.8						25.6			77.2	
Actuated g/C Ratio		0.24						0.22			0.67	
v/c Ratio		0.90						0.67			0.31	
Control Delay		56.4						27.4			2.9	
Queue Delay		0.0						0.0			2.0	
Total Delay		56.4						27.4			4.9	
LOS		E						C			A	
Approach Delay		56.4						27.4			4.9	
Approach LOS		E						C			A	
Queue Length 50th (ft)		286						140			27	
Queue Length 95th (ft)		#396						166			m27	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		859						934			1409	
Starvation Cap Reductn		0						0			794	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.90						0.64			0.71	

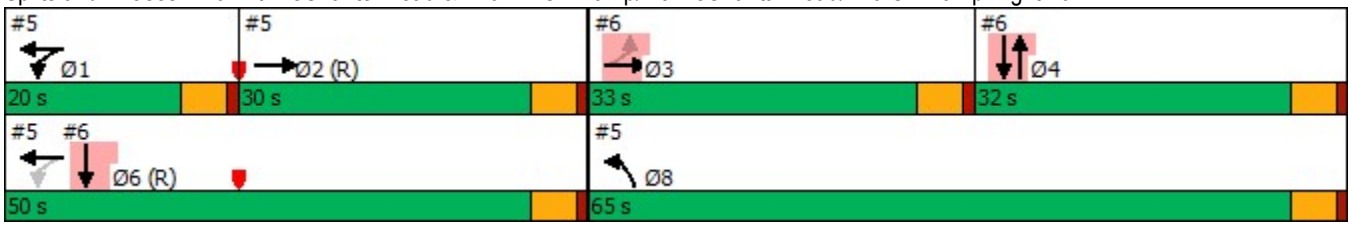
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 34.3		Intersection LOS: C	
Intersection Capacity Utilization 54.5%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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

Splits and Phases: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

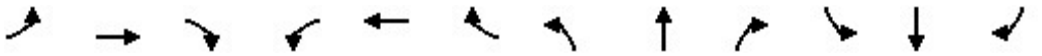
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	207	0	0	1145	0	836
Future Volume (vph)	207	0	0	1145	0	836
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3106	0	0	4398	0	2543
Flt Permitted						
Satd. Flow (perm)	3106	0	0	4398	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	0%	2%	0%	1%
Adj. Flow (vph)	223	0	0	1231	0	899
Shared Lane Traffic (%)						
Lane Group Flow (vph)	223	0	0	1231	0	899
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	207	0	0	1145	0	836
Future Volume (Veh/h)	207	0	0	1145	0	836
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	223	0	0	1231	0	899
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.95	
vC, conflicting volume			223		633	112
vC1, stage 1 conf vol					223	
vC2, stage 2 conf vol					410	
vCu, unblocked vol			223		441	112
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	3
cM capacity (veh/h)			1358		682	924

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	112	112	410	410	410	450	450
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	450	450
cSH	1700	1700	1700	1700	1700	924	924
Volume to Capacity	0.07	0.07	0.24	0.24	0.24	0.49	0.49
Queue Length 95th (ft)	0	0	0	0	0	68	68
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	12.5	12.5
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			12.5	
Approach LOS						B	

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	179	84	390	0	0	292	242
Future Volume (vph)	0	0	0	2	0	179	84	390	0	0	292	242
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)	6					6			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	4%	4%
Adj. Flow (vph)	0	0	0	2	0	188	88	411	0	0	307	255
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	188	88	411	0	0	562	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

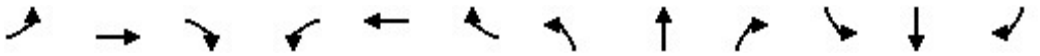
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	179	84	390	0	0	292	242
Future Vol, veh/h	0	0	0	2	0	179	84	390	0	0	292	242
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	2	0	4	0	0	4	4
Mvmt Flow	0	0	0	2	0	188	88	411	0	0	307	255

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	1022	-	417	562	0	-	-	-	0	
Stage 1	587	-	-	-	-	-	-	-	-	
Stage 2	435	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.1	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.2	-	-	-	-	-	
Pot Cap-1 Maneuver	279	0	643	1019	-	0	0	-	-	
Stage 1	578	0	-	-	-	0	0	-	-	
Stage 2	673	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	255	0	639	1019	-	-	-	-	-	
Mov Cap-2 Maneuver	255	0	-	-	-	-	-	-	-	
Stage 1	528	0	-	-	-	-	-	-	-	
Stage 2	673	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	13.1	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1019	-	255	639	-	-
HCM Lane V/C Ratio	0.087	-	0.008	0.295	-	-
HCM Control Delay (s)	8.9	-	19.2	13	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0	1.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	2	0	179	84	390	0	0	292	242
Future Volume (Veh/h)	0	0	0	2	0	179	84	390	0	0	292	242
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	2	0	188	88	411	0	0	307	255
Pedestrians					2						6	
Lane Width (ft)					15.0						12.0	
Walking Speed (ft/s)					3.5						3.5	
Percent Blockage					0						1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.92	0.92	0.90	0.92	0.92	0.97	0.90			0.97		
vC, conflicting volume	1028	1024	434	1024	1151	419	562			413		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	904	900	321	900	1038	381	462			375		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	71	91			100		
cM capacity (veh/h)	156	235	655	224	195	638	1003			1151		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	2	188	88	411	562
Volume Left	2	0	88	0	0
Volume Right	0	188	0	0	255
cSH	224	638	1003	1700	1700
Volume to Capacity	0.01	0.29	0.09	0.24	0.33
Queue Length 95th (ft)	1	31	7	0	0
Control Delay (s)	21.2	13.0	8.9	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	13.1		1.6		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	52.2%	ICU Level of Service	A	
Analysis Period (min)	15			

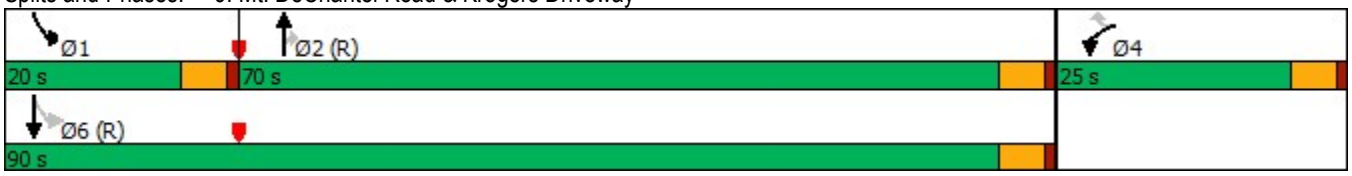
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	152	322	135	232	62
Future Volume (vph)	10	152	322	135	232	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1818	1697	1856	1977
Flt Permitted	0.950				0.499	
Satd. Flow (perm)	1787	1620	1818	1697	975	1977
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		167		148		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	4%	1%	0%	2%
Adj. Flow (vph)	11	167	354	148	255	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	167	354	148	255	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.6	9.6	82.6	82.6	95.4	95.4
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.07	0.58	0.27	0.12	0.29	0.04
Control Delay	47.7	15.8	6.9	1.3	7.2	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.8	6.9	1.3	7.2	5.1
LOS	D	B	A	A	A	A
Approach Delay	17.7		5.2			6.7
Approach LOS	B		A			A
Queue Length 50th (ft)	8	0	75	0	76	17
Queue Length 95th (ft)	26	63	152	22	m153	m35
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	419	1306	1261	923	1640
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.40	0.27	0.12	0.28	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 40 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 7.9		Intersection LOS: A	
Intersection Capacity Utilization 46.5%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	152	322	135	232	62
Future Volume (veh/h)	10	152	322	135	232	62
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1835	1954	1970	1939
Adj Flow Rate, veh/h	11	167	354	148	255	68
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	2	4	1	0	2
Cap, veh/h	219	199	1262	1140	753	1533
Arrive On Green	0.12	0.12	0.69	0.69	0.10	1.00
Sat Flow, veh/h	1787	1628	1835	1656	1876	1939
Grp Volume(v), veh/h	11	167	354	148	255	68
Grp Sat Flow(s),veh/h/ln	1787	1628	1835	1656	1876	1939
Q Serve(g_s), s	0.6	11.5	8.6	3.5	4.6	0.0
Cycle Q Clear(g_c), s	0.6	11.5	8.6	3.5	4.6	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	219	199	1262	1140	753	1533
V/C Ratio(X)	0.05	0.84	0.28	0.13	0.34	0.04
Avail Cap(c_a), veh/h	311	283	1262	1140	886	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	49.4	6.9	6.1	4.2	0.0
Incr Delay (d2), s/veh	0.2	20.5	0.6	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.9	3.4	1.3	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	69.9	7.5	6.4	4.3	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	178		502			323
Approach Delay, s/veh	68.3		7.2			3.4
Approach LOS	E		A			A
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.8	84.1		19.1		95.9
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	6.6	10.6		13.5		2.0
Green Ext Time (p_c), s	0.3	6.7		0.6		0.9
Intersection Summary						
HCM 6th Ctrl Delay			16.8			
HCM 6th LOS			B			

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	323	70	666	480	0	0
Future Volume (vph)	323	70	666	480	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.973					
Flt Protected				0.972		
Satd. Flow (prot)	2998	0	0	3065	0	0
Flt Permitted				0.972		
Satd. Flow (perm)	2998	0	0	3065	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		3	3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	2%	3%	0%	0%
Adj. Flow (vph)	355	77	732	527	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	432	0	0	1259	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	323	70	666	480	0	0
Future Volume (Veh/h)	323	70	666	480	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	355	77	732	527	0	0
Pedestrians					3	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.78	
vC, conflicting volume			358		2124	219
vC1, stage 1 conf vol					396	
vC2, stage 2 conf vol					1728	
vCu, unblocked vol			358		1870	219
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			39		100	100
cM capacity (veh/h)			1197		61	791

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	237	195	908	351
Volume Left	0	0	732	0
Volume Right	0	77	0	0
cSH	1700	1700	1197	1700
Volume to Capacity	0.14	0.11	0.61	0.21
Queue Length 95th (ft)	0	0	110	0
Control Delay (s)	0.0	0.0	11.8	0.0
Lane LOS			B	
Approach Delay (s)	0.0		8.5	
Approach LOS				

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	77	2	222	64	2	207
Future Volume (vph)	77	2	222	64	2	207
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997		0.970			
Flt Protected	0.953					
Satd. Flow (prot)	1576	0	1665	0	0	1549
Flt Permitted	0.953					
Satd. Flow (perm)	1576	0	1665	0	0	1549
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	0%	0%	0%	0%	4%
Adj. Flow (vph)	88	2	252	73	2	235
Shared Lane Traffic (%)						
Lane Group Flow (vph)	90	0	325	0	0	237
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	2	222	64	2	207
Future Vol, veh/h	77	2	222	64	2	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	0	0	4
Mvmt Flow	88	2	252	73	2	235

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	528	289	0	0	325	0
Stage 1	289	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	7.01	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.01	-	-	-	-	-
Critical Hdwy Stg 2	6.01	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	469	737	-	-	1246	-
Stage 1	727	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	468	737	-	-	1246	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	472	1246	-
HCM Lane V/C Ratio	-	-	0.19	0.002	-
HCM Control Delay (s)	-	-	14.4	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	77	2	222	64	2	207
Future Volume (Veh/h)	77	2	222	64	2	207
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	88	2	252	73	2	235
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	528	288			325	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	528	288			325	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	100			100	
cM capacity (veh/h)	512	755			1246	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	90	325	237
Volume Left	88	0	2
Volume Right	2	73	0
cSH	515	1700	1246
Volume to Capacity	0.17	0.19	0.00
Queue Length 95th (ft)	16	0	0
Control Delay (s)	13.5	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	13.5	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	492	0	0	434
Future Volume (vph)	0	0	492	0	0	434
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	547	0	0	482
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	547	0	0	482
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	492	0	0	434
Future Vol, veh/h	0	0	492	0	0	434
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	547	0	0	482

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1029	547	0	0	547	0
Stage 1	547	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	259	537	-	-	1022	-
Stage 1	580	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	259	537	-	-	1022	-
Mov Cap-2 Maneuver	259	-	-	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	621	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1022	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	66	0	0	79	0	0
Future Volume (vph)	66	0	0	79	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	73	0	0	88	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	73	0	0	88	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 8.0%		ICU Level of Service A	
Analysis Period (min) 15			

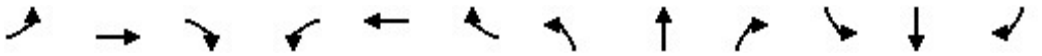
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	0	0	79	0	0
Future Vol, veh/h	66	0	0	79	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	0	0	88	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	161	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1527	-	830	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	935	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	830	989
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	935	-

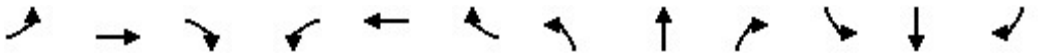
Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1527	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	278	285	4	8	333	100	45	20	31	107	4	289
Future Volume (vph)	278	285	4	8	333	100	45	20	31	107	4	289
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.998			0.966			0.956				0.850
Flt Protected	0.950				0.999			0.977			0.954	
Satd. Flow (prot)	1778	1849	0	0	3408	0	0	1713	0	0	1831	1615
Flt Permitted	0.426				0.948			0.757			0.640	
Satd. Flow (perm)	797	1849	0	0	3233	0	0	1327	0	0	1228	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			33			19				307
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			6	6								
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	296	303	4	9	354	106	48	21	33	114	4	307
Shared Lane Traffic (%)												
Lane Group Flow (vph)	296	307	0	0	469	0	0	102	0	0	118	307
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Reserved	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	20.0		20.0	20.0		17.0	17.0		17.0	17.0	9.5
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.5	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.5
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5	5.0			5.0			5.0			5.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	83.8	83.3			66.1			17.9			17.9	35.6
Actuated g/C Ratio	0.73	0.72			0.57			0.16			0.16	0.31
v/c Ratio	0.43	0.23			0.25			0.46			0.62	0.43
Control Delay	9.5	5.7			15.3			41.1			58.5	4.3
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	9.5	5.7			15.3			41.1			58.5	4.3
LOS	A	A			B			D			E	A
Approach Delay		7.6			15.3			41.1			19.4	
Approach LOS		A			B			D			B	
Queue Length 50th (ft)	46	49			68			56			83	0
Queue Length 95th (ft)	100	98			191			105			136	48
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	781	1340			1872			303			266	834
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.38	0.23			0.25			0.34			0.44	0.37

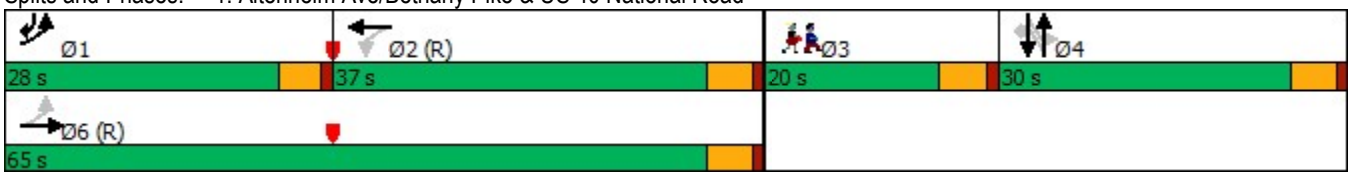
Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

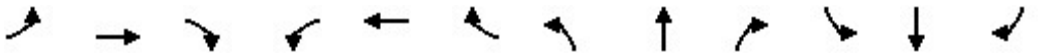
Intersection Summary

Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 52.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	215	1	0	211	6	0	0	0	6	0	132
Future Volume (vph)	109	215	1	0	211	6	0	0	0	6	0	132
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.871	
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Flt Permitted	0.950										0.998	
Satd. Flow (perm)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	118	234	1	0	229	7	0	0	0	7	0	143
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	235	0	0	236	0	0	0	0	0	150	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

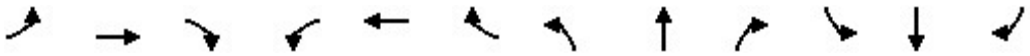
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	215	1	0	211	6	0	0	0	6	0	132
Future Vol, veh/h	109	215	1	0	211	6	0	0	0	6	0	132
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	118	234	1	0	229	7	0	0	0	7	0	143

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	235	0	0	775	707	235	704	704	233
Stage 1	-	-	-	-	-	-	471	471	-	233	233	-
Stage 2	-	-	-	-	-	-	304	236	-	471	471	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1343	-	-	1344	-	-	291	335	799	368	378	816
Stage 1	-	-	-	-	-	-	548	534	-	785	725	-
Stage 2	-	-	-	-	-	-	686	695	-	592	578	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1343	-	-	1344	-	-	224	306	799	343	345	816
Mov Cap-2 Maneuver	-	-	-	-	-	-	224	306	-	343	345	-
Stage 1	-	-	-	-	-	-	500	487	-	716	725	-
Stage 2	-	-	-	-	-	-	565	695	-	540	527	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	0	10.8
HCM LOS			A	B

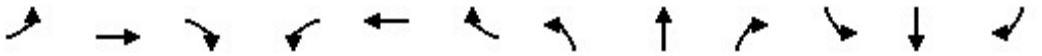
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1343	-	-	1344	-	-	770
HCM Lane V/C Ratio	-	0.088	-	-	-	-	-	0.195
HCM Control Delay (s)	0	7.9	-	-	0	-	-	10.8
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	215	1	0	211	6	0	0	0	6	0	132
Future Volume (Veh/h)	109	215	1	0	211	6	0	0	0	6	0	132
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	118	234	1	0	229	7	0	0	0	7	0	143
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	236			235			846	706	234	702	704	232
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	236			235			846	706	234	702	704	232
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			100			100	100	100	98	100	82
cM capacity (veh/h)	1343			1344			218	331	809	331	332	812

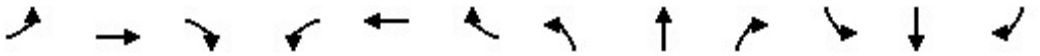
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	118	235	236	0	150
Volume Left	118	0	0	0	7
Volume Right	0	1	7	0	143
cSH	1343	1700	1344	1700	760
Volume to Capacity	0.09	0.14	0.00	0.00	0.20
Queue Length 95th (ft)	7	0	0	0	18
Control Delay (s)	7.9	0.0	0.0	0.0	10.9
Lane LOS	A			A	B
Approach Delay (s)	2.7		0.0	0.0	10.9
Approach LOS				A	B

Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	45.0%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	701	27	13	660	13	4	0	3	14	2	44
Future Volume (vph)	44	701	27	13	660	13	4	0	3	14	2	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00							
Frt		0.995			0.997			0.942				0.850
Flt Protected	0.950			0.950				0.972			0.958	
Satd. Flow (prot)	1805	3549	0	1805	3563	0	0	2011	0	0	2042	1705
Flt Permitted	0.320			0.352				0.904			0.817	
Satd. Flow (perm)	608	3549	0	667	3563	0	0	1870	0	0	1742	1705
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			2			142				142
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		6	6		1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	48	762	29	14	717	14	4	0	3	15	2	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	791	0	14	731	0	0	7	0	0	17	48
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	73.0	73.0		79.8	79.8			16.4			16.4	16.4
Actuated g/C Ratio	0.63	0.63		0.69	0.69			0.14			0.14	0.14
v/c Ratio	0.11	0.35		0.03	0.30			0.02			0.07	0.13
Control Delay	8.2	9.3		0.9	0.9			0.2			42.4	0.8
Queue Delay	0.0	0.0		0.0	0.1			0.0			0.0	0.0
Total Delay	8.2	9.3		0.9	1.0			0.2			42.4	0.8
LOS	A	A		A	A			A			D	A
Approach Delay		9.2			1.0			0.2			11.6	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	12	121		0	3			0			11	0
Queue Length 95th (ft)	24	148		m1	13			0			33	0
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	542	2255		465	2487			412			272	386
Starvation Cap Reductn	0	0		0	766			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.09	0.35		0.03	0.42			0.02			0.06	0.12

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

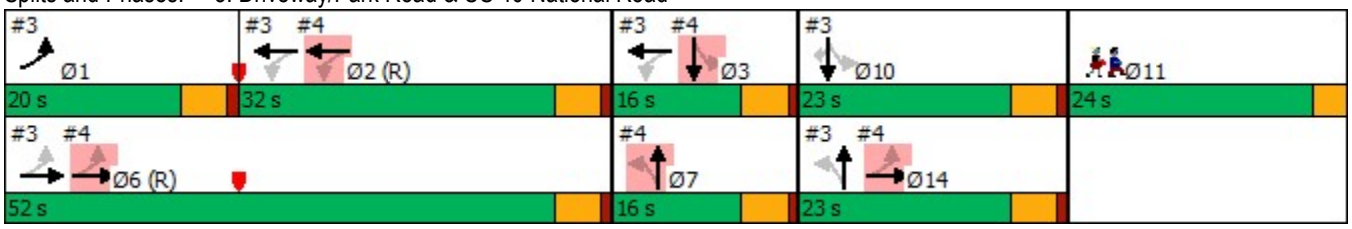
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

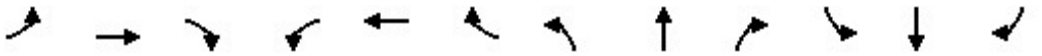
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road

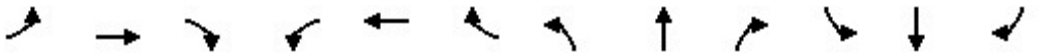


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	673	40	24	621	2	53	1	26	7	0	12
Future Volume (vph)	5	673	40	24	621	2	53	1	26	7	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992						0.957			0.916	
Flt Protected				0.950				0.968			0.981	
Satd. Flow (prot)	0	3546	0	1787	3574	0	0	1734	0	0	1690	0
Flt Permitted		0.952		0.063				0.787			0.903	
Satd. Flow (perm)	0	3375	0	119	3574	0	0	1410	0	0	1556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8						16			142	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	5	732	43	26	675	2	58	1	28	8	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	780	0	26	677	0	0	87	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.4		64.3	64.3			10.6			10.6	
Actuated g/C Ratio		0.82		0.56	0.56			0.09			0.09	
v/c Ratio		0.28		0.39	0.34			0.60			0.08	
Control Delay		0.9		35.8	12.1			58.9			0.6	
Queue Delay		0.2		0.0	0.0			0.0			0.0	
Total Delay		1.1		35.8	12.1			58.9			0.6	
LOS		A		D	B			E			A	
Approach Delay		1.1			12.9			58.9			0.6	
Approach LOS		A			B			E			A	
Queue Length 50th (ft)		1		12	156			51			0	
Queue Length 95th (ft)		13		#55	126			#114			0	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2728		66	1997			149			277	
Starvation Cap Reductn		942		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.44		0.39	0.34			0.58			0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 39.7%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

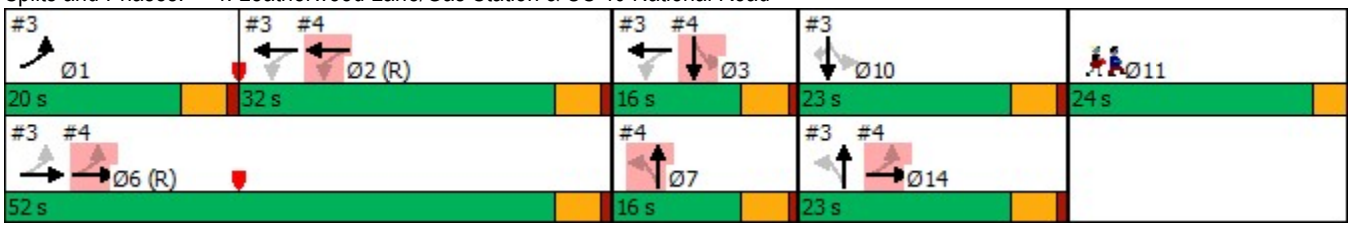
Intersection Summary

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



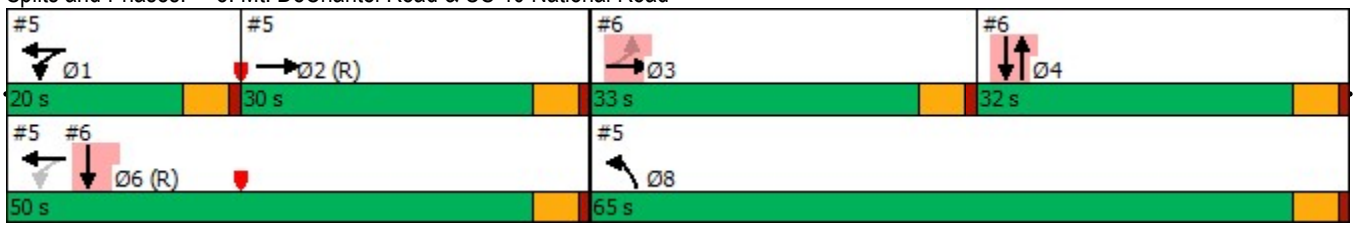
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	148	119	220	531	262	0			
Future Volume (vph)	148	119	220	531	262	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.933								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3195	0	1668	3455	3368	0			
Flt Permitted			0.466		0.950				
Satd. Flow (perm)	3195	0	818	3455	3368	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	127								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	3%	1%	1%	1%	0%			
Adj. Flow (vph)	157	127	234	565	279	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	284	0	234	565	279	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

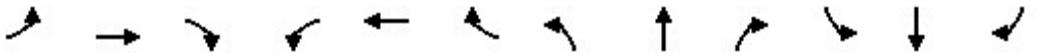
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	33.4		52.6	52.6	52.4				
Actuated g/C Ratio	0.29		0.46	0.46	0.46				
v/c Ratio	0.28		0.49	0.36	0.18				
Control Delay	19.9		37.2	34.2	7.3				
Queue Delay	0.0		0.0	0.0	0.6				
Total Delay	19.9		37.2	34.2	7.9				
LOS	B		D	C	A				
Approach Delay	19.9			35.1	7.9				
Approach LOS	B			D	A				
Queue Length 50th (ft)	47		162	211	23				
Queue Length 95th (ft)	91		258	284	23				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	1016		485	1581	1757				
Starvation Cap Reductn	0		0	0	1134				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.28		0.48	0.36	0.45				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 26.3		Intersection LOS: C	
Intersection Capacity Utilization 40.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Mt. DeChantel Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.



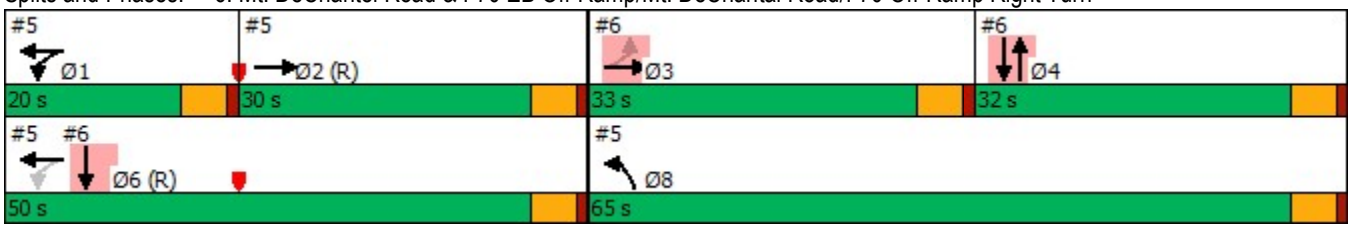
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	393	96	0	0	0	0	192	247	0	339	0
Future Volume (vph)	70	393	96	0	0	0	0	192	247	0	339	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor								0.99				
Frt		0.974						0.916				
Flt Protected		0.994										
Satd. Flow (prot)	0	3513	0	0	0	0	0	3358	0	0	2121	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3513	0	0	0	0	0	3358	0	0	2121	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20						267				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%
Adj. Flow (vph)	76	427	104	0	0	0	0	209	268	0	368	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	607	0	0	0	0	0	477	0	0	368	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		25.4						21.9			79.6	
Actuated g/C Ratio		0.22						0.19			0.69	
v/c Ratio		0.77						0.56			0.25	
Control Delay		47.4						25.7			1.8	
Queue Delay		0.0						0.0			0.6	
Total Delay		47.4						25.7			2.4	
LOS		D						C			A	
Approach Delay		47.4						25.7			2.4	
Approach LOS		D						C			A	
Queue Length 50th (ft)		212						87			17	
Queue Length 95th (ft)		274						130			18	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		870						992			1463	
Starvation Cap Reductn		0						0			737	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.70						0.48			0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 28.9		Intersection LOS: C	
Intersection Capacity Utilization 42.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



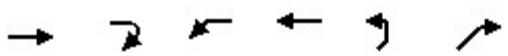
Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	148	0	0	751	0	640
Future Volume (vph)	148	0	0	751	0	640
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Ped Bike Factor						
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3198	0	0	4442	0	2543
Flt Permitted						
Satd. Flow (perm)	3198	0	0	4442	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	0%	1%	0%	1%
Adj. Flow (vph)	159	0	0	808	0	688
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	0	808	0	688
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

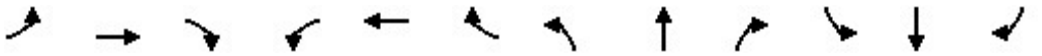
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	148	0	0	751	0	640
Future Volume (Veh/h)	148	0	0	751	0	640
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	159	0	0	808	0	688
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked						
vC, conflicting volume			161		430	82
vC1, stage 1 conf vol					161	
vC2, stage 2 conf vol					269	
vCu, unblocked vol			161		430	82
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	29
cM capacity (veh/h)			1428		698	963

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	80	80	269	269	269	344	344
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	344	344
cSH	1700	1700	1700	1700	1700	963	963
Volume to Capacity	0.05	0.05	0.16	0.16	0.16	0.36	0.36
Queue Length 95th (ft)	0	0	0	0	0	41	41
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.8	10.8
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			10.8	
Approach LOS						B	

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	166	65	273	0	0	254	181
Future Volume (vph)	0	0	0	2	0	166	65	273	0	0	254	181
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.944	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1549	1546	1675	0	0	1581	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1549	1546	1675	0	0	1581	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)			1	1			1		3	3		1
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	5%	2%	0%	0%	1%	1%
Adj. Flow (vph)	0	0	0	2	0	175	68	287	0	0	267	191
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	175	68	287	0	0	458	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

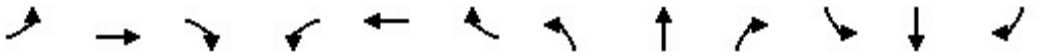
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	166	65	273	0	0	254	181
Future Vol, veh/h	0	0	0	2	0	166	65	273	0	0	254	181
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	5	2	0	0	1	1
Mvmt Flow	0	0	0	2	0	175	68	287	0	0	267	191

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	787	-	287	459	0	-	-	-	0	
Stage 1	423	-	-	-	-	-	-	-	-	
Stage 2	364	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.1	4.15	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.3	2.245	-	-	-	-	-	
Pot Cap-1 Maneuver	379	0	763	1086	-	0	0	-	-	
Stage 1	681	0	-	-	-	0	0	-	-	
Stage 2	722	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	355	0	763	1086	-	-	-	-	-	
Mov Cap-2 Maneuver	355	0	-	-	-	-	-	-	-	
Stage 1	638	0	-	-	-	-	-	-	-	
Stage 2	721	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	11.1	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1086	-	355	763	-	-
HCM Lane V/C Ratio	0.063	-	0.006	0.229	-	-
HCM Control Delay (s)	8.5	-	15.2	11.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0	0.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	2	0	166	65	273	0	0	254	181
Future Volume (Veh/h)	0	0	0	2	0	166	65	273	0	0	254	181
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	2	0	175	68	287	0	0	267	191
Pedestrians		1			3			1				
Lane Width (ft)		0.0			15.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		0			0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	786	790	364	790	885	290	459			290		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	733	736	279	736	839	290	381			290		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	77	94			100		
cM capacity (veh/h)	229	303	710	297	264	751	1080			1279		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	2	175	68	287	458
Volume Left	2	0	68	0	0
Volume Right	0	175	0	0	191
cSH	297	751	1080	1700	1700
Volume to Capacity	0.01	0.23	0.06	0.17	0.27
Queue Length 95th (ft)	1	22	5	0	0
Control Delay (s)	17.2	11.2	8.6	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	11.3		1.6		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	44.7%	ICU Level of Service		A
Analysis Period (min)	15			

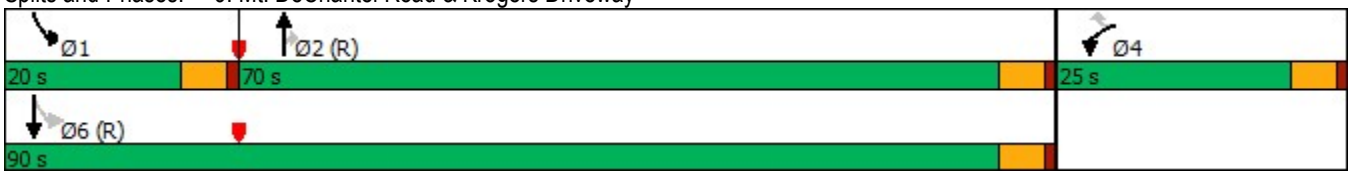
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	120	218	98	224	32
Future Volume (vph)	7	120	218	98	224	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1853	1697	1837	2017
Flt Permitted	0.950				0.579	
Satd. Flow (perm)	1787	1620	1853	1697	1120	2017
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		128		104		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	1%	1%	0%
Adj. Flow (vph)	7	128	232	104	238	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	128	232	104	238	34
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	3.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.2	9.2	82.3	82.3	95.8	95.8
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.05	0.52	0.17	0.08	0.24	0.02
Control Delay	47.7	16.1	6.2	1.4	1.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	16.1	6.2	1.4	1.5	0.9
LOS	D	B	A	A	A	A
Approach Delay	17.7		4.7			1.4
Approach LOS	B		A			A
Queue Length 50th (ft)	5	0	46	0	8	1
Queue Length 95th (ft)	19	57	95	18	m26	m5
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	387	1326	1244	1026	1679
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.33	0.17	0.08	0.23	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 45 (39%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 5.9		Intersection LOS: A	
Intersection Capacity Utilization 40.6%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	120	218	98	224	32
Future Volume (veh/h)	7	120	218	98	224	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1864	1954	1954	1970
Adj Flow Rate, veh/h	7	128	232	104	238	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	1	1	0
Cap, veh/h	174	159	1342	1192	902	1606
Arrive On Green	0.10	0.10	0.72	0.72	0.05	0.82
Sat Flow, veh/h	1787	1628	1864	1656	1861	1970
Grp Volume(v), veh/h	7	128	232	104	238	34
Grp Sat Flow(s),veh/h/ln	1787	1628	1864	1656	1861	1970
Q Serve(g_s), s	0.4	8.9	4.6	2.2	3.6	0.4
Cycle Q Clear(g_c), s	0.4	8.9	4.6	2.2	3.6	0.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	174	159	1342	1192	902	1606
V/C Ratio(X)	0.04	0.81	0.17	0.09	0.26	0.02
Avail Cap(c_a), veh/h	311	283	1342	1192	1047	1606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	50.8	5.2	4.8	3.2	2.0
Incr Delay (d2), s/veh	0.2	18.1	0.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	1.8	0.7	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.2	68.9	5.4	5.0	3.3	2.0
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	135		336			272
Approach Delay, s/veh	67.8		5.3			3.2
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	87.8		16.2		98.8
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	5.6	6.6		10.9		2.4
Green Ext Time (p_c), s	0.5	4.1		0.5		0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	219	61	476	325	0	0
Future Volume (vph)	219	61	476	325	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.967					
Flt Protected				0.971		
Satd. Flow (prot)	3086	0	0	3093	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3086	0	0	3093	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		4	4			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	1%	2%	0%	0%
Adj. Flow (vph)	231	64	501	342	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	295	0	0	843	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	219	61	476	325	0	0
Future Volume (Veh/h)	219	61	476	325	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	231	64	501	342	0	0
Pedestrians					4	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.90	
vC, conflicting volume			235		1440	152
vC1, stage 1 conf vol					267	
vC2, stage 2 conf vol					1173	
vCu, unblocked vol			235		1266	152
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			63		100	100
cM capacity (veh/h)			1337		181	874

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	154	141	615	228
Volume Left	0	0	501	0
Volume Right	0	64	0	0
cSH	1700	1700	1337	1700
Volume to Capacity	0.09	0.08	0.37	0.13
Queue Length 95th (ft)	0	0	44	0
Control Delay (s)	0.0	0.0	8.3	0.0
Lane LOS			A	
Approach Delay (s)	0.0		6.0	
Approach LOS				

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	54	1	171	54	2	156
Future Volume (vph)	54	1	171	54	2	156
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998		0.968			
Flt Protected	0.953					0.999
Satd. Flow (prot)	1593	0	1662	0	0	1563
Flt Permitted	0.953					0.999
Satd. Flow (perm)	1593	0	1662	0	0	1563
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	59	1	188	59	2	171
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	247	0	0	173
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	23.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	1	171	54	2	156
Future Vol, veh/h	54	1	171	54	2	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	59	1	188	59	2	171

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	393	218	0	0	247	0
Stage 1	218	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	576	812	-	-	1331	-
Stage 1	794	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	575	812	-	-	1331	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	834	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	578	1331	-
HCM Lane V/C Ratio	-	-	0.105	0.002	-
HCM Control Delay (s)	-	-	12	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	54	1	171	54	2	156
Future Volume (Veh/h)	54	1	171	54	2	156
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	59	1	188	59	2	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	392	218			247	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	392	218			247	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	100			100	
cM capacity (veh/h)	614	827			1331	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	60	247	173
Volume Left	59	0	2
Volume Right	1	59	0
cSH	617	1700	1331
Volume to Capacity	0.10	0.15	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	11.5	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	11.5	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	23.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	325	0	0	343
Future Volume (vph)	0	0	325	0	0	343
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	361	0	0	381
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	361	0	0	381
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	325	0	0	343
Future Vol, veh/h	0	0	325	0	0	343
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	361	0	0	381

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	742	361	0	0	361	0
Stage 1	361	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	383	684	-	-	1198	-
Stage 1	705	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	383	684	-	-	1198	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1198	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	56	0	0	55	0	0
Future Volume (vph)	56	0	0	55	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	62	0	0	61	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	61	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 6.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	0	0	55	0	0
Future Vol, veh/h	56	0	0	55	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	0	0	61	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	62	0	123	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1541	-	872	1003
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1541	-	872	1003
Mov Cap-2 Maneuver	-	-	-	-	872	-
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	962	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1541	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

STAHL SHEAFFER ENGINEERING

Appendix G. Trip Generation and Distribution

TABLE G1
THE HIGHLANDS
DEVELOPMENT COMPONENT SUMMARY
(FROM OPENING YEAR TO MARCH 2018)

Parcel ID #	Development	Land Use	Year Built	SF
35-06-00T8-0040-0017	CABELAS WHOLESALE INC	RETAIL-SINGLE OCCUPANCY RETAIL STORE, WAREHOUSE, OFFICE BUILDING	2004	180,656
35-06-00T8-0040-0019	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0020	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0024	RUSSELL STOVER CANDIES INC	RETAIL-SINGLE OCCUPANCY FRANCHINE FOOD	2007	5,040
35-06-00T8-0040-0025	APPALACHIAN LAND & LEASING COMPANY LLC	FRANCHISE FOOD	2005	5,575
35-06-00T8-0040-0030	WALMART REAL ESTATE BUSINESS TRUST	DISCOUNT DEPARTMENT STORE DISCOUNT STORE OR MARKET, AUTO PARTS OR SERVICE	2006	206,552
35-06-00T8-0040-0031	OHIO COUNTY DEVELOPMENT AUTHORITY	WAREHOUSE	2012	120,424
35-06-00T8-0040-0032	TARGET CORPORATION PROPERTY	DEPARTMENT STORE/ ANCHOR STORE DISCOUNT STORE OR MARKET	2006	127,576
35-06-00T8-0040-0033	BOB EVANS FARMS OHIO COUNTY DEV AUTHORITY	FRANCHISE FOOD	2006	5,981
35-06-00T8-0040-0034	OCDA BUILDING ONE C/O OHIO COUNTY DEV	FRANCHISE FOOD	2007	4,757
35-06-00T8-0040-0035	EAT N PARK HOSPITALITY GRP INC OHIO COUNTY DEV AUTHORITY	FRANCHISE FOOD	2006	7,296
35-06-00T8-0040-0036	MCDONALDS USA LLC OHIO COUNTY DEV AUTH	FRANCHISE FOOD	2006	4,095
35-06-00T8-0040-0037	WENDYS EASTERN MGT GP INC OHIO COUNTY DEV AUTHORITY	FRANCHISE FOOD	2006	3,325
35-06-00T8-0040-0038	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0039	NATIONAL RETAIL PROPERTIES LP	RESTAURANT FRANCHISE FOOD	2007	8,399
35-06-00T8-0040-0040	POWER CENTER OHIO COUNTY DEVELOPMENT AUTHORITY	REGIONAL SHOPPING MALL RETAIL STORE, SUPPORT AREA	2007-2008	163,748
35-06-00T8-0040-0041	JC PENNEY OHIO COUNTY DEV AUTH	DEPARTMENT STORE/ ANCHOR STORE DEPARTMENT STORE, SUPPORT AREA	2007	110,396
35-06-00T8-0040-0042	KOHLS	DEPARTMENT STORE/ ANCHOR STORE	2007	68,671
35-06-00T8-0040-0043	WESBANCO	BANK	2009	3,399
35-06-00T8-0040-0045	SPT PRAIRIE	TRUCK TERMINAL WAREHOUSE, MULTI-USE OFFICE	2004	1,200,257
35-06-00T8-0040-0046	FCPT RESTAURANT PROPERTIES TRUST INC	FRANCHISE FOOD	2008	7,403
35-06-00T8-0040-0047	ALCADAN LLC C/O OHIO COUNTY DEV AUTH	RETAIL-MULTIPLE OCCUPANCY - FRANCHISE FOOD, RETAIL STORE, MEDICAL CENTER, SUPPORT AREA	2007	17,870
35-06-00T8-0040-0048	OHIO COUNTY DEVELOPMENT AUTHORITY	RESTAURANT FRANCHISE FOOD	2009	8,959
35-06-00T8-0040-0049	NICHOLAS & PATRINOS PROP LLC	RESTAURANT	2014	6,240
35-06-00T8-0040-0050	BEST BUY OHIO COUNTY DEV AUTH	RETAIL-SINGLE OCCUPANCY RETAIL STORE	2009	30,051
35-06-00T8-0040-0051	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	2004	0

TABLE G1 (CONT'D)
THE HIGHLANDS
DEVELOPMENT COMPONENTS SUMMARY
(FROM OPENING YEAR TO MARCH 2018)

Parcel ID #	Development	Land Use	Year Built	SF
35-06-00T8-0040-0052	TOWN CENTER C/O OHIO COUNTY DEV AUTH	REGIONAL SHOPPING MALL - FRANCHISE FOOD, RETAIL STORE, OFFICE BLDG, MULTI-USE OFFICE AND SALES	2008-2009	111,096
35-06-00T8-0040-0053	MARQUEE CINEMA-WV INC C/O OHIO COUNTY DEV AUTH	MOTION PICTURE THEATER CINEMA	2008	61,265
35-06-00T8-0040-0054	X & W ENTERPRISES LLC	COMMUNITY SHOPPING CENTER	2009	16,142
35-06-00T8-0040-0055	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0056	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0058	RSV WHEELING LLC	HOTEL/MOTEL - HIGH RISE	2013	72,444
35-06-00T8-0040-0059	PTM LP C/O SHEETZ TAX DEPT	CONVENIENCE FOOD MARKET CONVENIENCE STORE, CAR WASH-AUTOMATIC	2009	6,869
35-06-00T8-0040-0060	WEST LIBERTY UNIVERSITY C/O OHIO COUNTY DEV AUTH	RETAIL-MULTIPLE OCCUPANCY RETAIL STORE, OFFICE BLDG, SCHOOL, SUPPORT AREA	2009	42,367
35-06-00T8-0040-0063	HIGHLANDS HOSPITALITY LLC	HOTEL/MOTEL - HIGH RISE	2012	40,086
35-06-00T8-0040-0065	LOGANS ROADHOUSE INC	RESTAURANT FRANCHISE FOOD	2012	6,736
35-06-00T8-0040-0066	DEE CORPORATION	RESTAURANT	2015	7,144
35-06-00T8-0040-0067	TRIADELPHIA ASS LLC PLAZA AT THE HIGHLANDS LLC	AUTO DEALER-FULL SERVICE RETAIL STORE	2015	14,700
35-06-00T8-0040-0068	CENTURY HOSPITALITY 3D LLC	HOTEL/MOTEL - LOW RISE	2015	56,774
35-06-00T8-0040-0069	MENARD INC C/O PROPERTY DIVISIONS	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0071	CENTURY TCS LLC	HOTEL/MOTEL - HIGH RISE MOTEL, WAREHOUSE	2016	66,097
35-06-00T8-0040-0072	EAST COAST METAL	INDUSTRIAL METAL WORKING MANUFACTURING, MULTI-USE OFFICE/STORAGE, SUPPORT	2016	65,508
35-06-00T8-0040-0073	EAST COAST METAL	INDUSTRIAL METAL WORKING	2018	0
35-06-00T8-0040-0074	OHIO COUNTY DEVELOPMENT AUTHORITY	VACANT COMMERCIAL LAND	--	0
35-06-00T8-0040-0078	OHIO COUNTY DEVELOPMENT AUTHORITY	PARKING MISCELLANEOUS	--	0
THE HIGHLANDS TOTAL DEVELOPMENT				**2,769,331**

Note: Development components for The Highlands were obtained through West Virginia Property Viewer, a WV Property Tax Division and WV GIS Technical Center on-line application. This application allows for searching an displaying property ownership, location and detailed development information.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE G2
THE HIGHLANDS
DAILY SITE GENERATED TRAFFIC

Development	Size (Sq. Ft.)	Weekday Daily Site Generated Traffic (Trips Per Day)[(1)]	Weekday Daily Site Generated Trip Rate (Trips Per 1,000 SF)
The Highlands	2,769,331	23,500	8.4858

(1) Daily site generated traffic obtained from daily count data summarized in *The Highlands Multiple Project Agreement; Task Order #6, Traffic Data Collection Letter Report* prepared by HDR Engineering, Inc., dated June 19, 2018.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE G3
GC&P BETHANY PIKE (WV 88) MIXED-USE VILLAGE
DEVELOPMENT COMPONENT SUMMARY

Development Component		Size[(1)] (Sq. Ft.)
Residential	Townhouses (88 Units)	132,000
Hotel	Hotel (125 Rooms)	62,400
Entertainment/Recreational	Fitness Center/Bowling Alley	21,500
	Theater	67,000
Office	Office/Institutional Building	490,000
Retail	Specialty Retail	158,200
	Restaurant (Fast Casual)	2,500
	Restaurant (Fast Casual)	2,500
	Restaurant (Coffee Shop)	4,800
	Grocery Store	43,000
	Drug Store	14,000
GC&P BETHANY PIKE (WV 88) MIXED-USE VILLAGE DEVELOPMENT TOTAL		**997,900**

(1) Total GC&P development size based on master plan components utilized in preparation of the TIS. It was assumed that each townhome was and average of approximately 1,500 SF.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE G4
TRIP GENERATION SUMMARY
TOTAL SITE GENERATED TRAFFIC - WITHOUT INTERNAL CAPTURE AND WITHOUT PASS-BY TRIP REDUCTION
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Land Use Category	Development Component	Size	ITE Land Use	Site Generated 24-Hour Daily Traffic[2]		Site Generated Peak Hour Traffic Volumes[1]								
						AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				Weekday	Saturday	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
RESIDENTIAL	MULTIFAMILY HOUSING (LOW-RISE)	88 Townhomes (132,000 SF)	220	644	716	10	32	42	33	20	53	33	29	62
HOTEL	HOTEL	125 Rooms (62,400 SF)	310	1,045	1,024	35	24	59	38	37	75	51	40	91
ENTERTAINMENT/ RECREATIONAL	BOWLING ALLEY[3]	10,750 SF	437	160	160	8	1	9	10	6	16	10	6	16
	MULTIPLEX MOVIE THEATER[4]	8 Screens (67,000 SF)	445	2,340	2,340	0	0	0	107	75	182	115	45	160
	HEALTH/FITNESS CLUB[5]	10,750 SF	492	560	560	7	7	14	32	24	56	17	17	34
OFFICE	GENERAL OFFICE	490,000 SF	710	4,957	1,083	419	68	487	82	433	515	140	120	260
RETAIL	SHOPPING CENTER	168,000 SF	820	8,555	12,294	146	90	236	383	415	798	485	448	933
	SUPERMARKET	43,000 SF	850	4,592	7,638	98	66	164	212	204	416	252	243	495
	PHARMACY/DRUGSTORE WITH DRIVE-THROUGH WINDOW	14,000 SF	881	1,528	1,608	29	25	54	72	72	144	60	63	123
TOTAL RESIDENTIAL		*132,000 SF*	--	*644*	*716*	*10*	*32*	*42*	*33*	*20*	*53*	*33*	*29*	*62*
TOTAL HOTEL		*62,400 SF*	--	*1,045*	*1,024*	*35*	*24*	*59*	*38*	*37*	*75*	*51*	*40*	*91*
TOTAL ENTERTAINMENT/RECREATIONAL		*88,500 SF*	--	*3,060*	*3,060*	*15*	*8*	*23*	*149*	*105*	*254*	*142*	*68*	*210*
TOTAL OFFICE		*490,000 SF*	--	*4,957*	*1,083*	*419*	*68*	*487*	*82*	*433*	*515*	*140*	*120*	*260*
TOTAL RETAIL		*225,000 SF*	--	*14,675*	*21,540*	*273*	*181*	*454*	*667*	*691*	*1,358*	*797*	*754*	*1,551*
TOTAL DEVELOPMENT		**997,900 SF**	**--**	**24,381**	**27,423**	**752**	**313**	**1,065**	**969**	**1,286**	**2,255**	**1,163**	**1,011**	**2,174**

(1) Total number of peak hour vehicle trips generated determined through the use of methodologies presented in *Trip Generation Manual, 10th Edition Supplement*, published by the Institute of Transportation Engineers (ITE).

(2) Total number of weekday daily and Saturday daily 24-hour vehicle trips generated determined through the use of methodologies presented in *Trip Generation Manual, 10th Edition Supplement*, published by the Institute of Transportation Engineers (ITE).

(3) Total weekday and Saturday daily 24-hour traffic data is not provided for ITE Land Use 437 (Bowling Alley). Therefore, the total PM peak hour traffic is anticipated to represent 10% of the total weekday daily traffic (16/.1=160). The Saturday 24-daily traffic is anticipated to reflect the total weekday daily 24-hour traffic projections.

(4) Total Saturday daily 24-hour traffic data is not provided for ITE Land Use 445 (Multiplex Theater). Therefore, the Saturday 24-daily traffic is anticipated to reflect the total weekday daily 24-hour traffic projections.

(5) Total weekday and Saturday daily 24-hour traffic data is not provided for ITE Land Use 492 (Health/Fitness Club). Therefore, the total PM peak hour traffic is anticipated to represent 10% of the total weekday daily traffic (16/.1=160). The Saturday 24-daily traffic is anticipated to reflect the total weekday daily 24-hour traffic projections.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE G5
TRIP RATE COMPARISON
The Highlands (Locally Collected Data) VS. GC&P (ITE Data)

Development	Source	Size (Sq. Ft.)	Weekday Daily Site Generated Traffic (Trips Per Day)[1]	Weekday Daily Site Generated Trip Rate (Trips Per 1,000 SF)
The Highlands	Locally Collected Data[1]	2,769,331	23,500	8.4858
GC&P	ITE[2]	997,900	24,381	24.4323
Percent Difference (Between GC&P and The Highlands)		-64.0%	3.7%	187.9%

(1) As detailed and summarized in Table G2.

(2) As detailed and summarized in Table G4.

Source: Summary by Stahl Sheaffer Engineering, LLC.

TABLE G6
GC&P DEVELOPMENT - REGIONAL TRIP GENERATION
CALCULATION SUMMARY

STEP 1: Calculate Regional Trip Generation Rate Based on The Highlands SF and Existing Daily Traffic (See Tables G1 & G2)

Development	Total Development Size	Average Daily Traffic[2]	Vehicles per Day per 1,000 Sq. Ft.
The Highlands	2,769,331 SF	23,500 vpd	8.485804

STEP 2: Determine GC&P Forecasted Daily Traffic Projections per ITE (See Table G4)

Development	Total Development Size[1]	Average Daily Traffic Per ITE[2]	
		Weekday	Saturday
GC&P Development	997,900 SF	24,381 vpd	27,423 vpd

Note : Saturday Daily traffic is approximately 12.48% greater than the Weekday Daily Traffic.

STEP3: Determine GC&P Daily Traffic based on the Calculated Regional Trip Generation Rate from The Highlands Data

Development	Total Development Size	Calculated Regional GC&P Daily Traffic	
		Weekday[1]	Saturday[2]
GC&P Development	997,900 SF	8,468 vpd	9,525 vpd

(1) Weekday daily traffic was determined by multiplying the total GC&P development SF 797,900sf by the Highlands calculated Vehicles per Day per 1,000 SF (from

(2) Saturday daily traffic was determined by calculating the percent difference between ITE's Saturday daily traffic to ITE's Weekday daily traffic (20.43% as summarized in Step 2 above), and applying this percentage to the Calculated Regional GC&P Weekday Daily Traffic (6,771vpd) to determine the projected Saturday daily traffic (8,154vpd)

STEP 4: Determine Weekday AM, Weekday PM and Saturday Peak Hour Traffic Volumes Based on Calculated Regional GC&P Daily Traffic

Development	Total Development Size	Calculated Weekday AM Peak Hour Traffic[1]		
		Enter	Exit	Total
		261	109	370
		Calculated Weekday PM Peak Hour Traffic		
		Enter	Exit	Total
GC&P Development	997,900 SF	337	447	783
		Calculated Saturday Peak Hour Traffic		
		Enter	Exit	Total
		404	351	755

(1) Weekday AM, Weekday PM, and Saturday peak hour traffic determined by applying the correlating proportion of ITE Trip Generation peak hour projections (as summarized in Table G4, and the quick reference table before) with ITE Weekday Daily and Saturday Daily Traffic Projections, to the Calculated Regional GC&P Daily Traffic Projections (as summarized in Step 3 above).

Quick Reference Table: ITE Trip Generation Summary (from Table G4)

Development	Total Development Size	ITE Trip Generation			
		Weekday Daily Traffic		Saturday Daily Traffic	
		24,381 vpd		27,423 vpd	
		ITE Weekday AM Peak Hour Traffic			
		Enter	Exit	Total	
				Volume	% of Daily
		752	313	1,065	4.3682%
		ITE Weekday PM Peak Hour Traffic			
GC&P Development	997,900 SF	Enter	Exit	Total	
				Volume	% of Daily
		969	1,286	2,255	9.2490%
		ITE Saturday Peak Hour Traffic			
		Enter	Exit	Total	
				Volume	% of Daily
		1,163	1,011	2,174	7.9277%

TABLE G7
TRIP GENERATION SUMMARY
GC&P Bethany Pike (WV 88) Mixed-Use Village Development TIS
City of Wheeling, Ohio County, West Virginia

Development	Size	Site Generated 24-Hour Daily Traffic		Site Generated Peak Hour Trafic Volumes								
				AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		Weekday	Saturday	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
GC&P Mixed-Use Village Development	997,900 SF	8,468	9,525	261	109	370	337	447	783	404	351	755

June 19, 2018

Mr. Gregory L. Stewart, Secretary/Treasurer
Ohio Count Development Authority
1500 Chapline Street, 215 City County Building
Wheeling, WV 26003

Re: The Highlands Multiple Project Agreement; Task Order #6
Traffic Data Collection
Letter Report

Dear Mr. Stewart:

This letter report documents the traffic data collected at the Highlands in March and April 2018. The project includes 24-hour machine counts at 8 locations along Cabela Drive (CR 41), ranging from the I-70 Interchange to the Target Driveway. Methodology and traffic data collected are summarized below.

HDR collected hourly traffic counts using video from Miovision traffic recorders and used these data recorders to estimate the average daily traffic (ADT), truck percentages and peak hours along Cabela Drive. The data was collected from March 22 to April 1, 2018. The results for each segment of Cabela Drive within the project area are provided in Table 1. The ADTs shown in this table are the sum of both directions of Cabela Drive. The ADTs were rounded to the nearest 100 vehicles and the truck percentages were rounded to the nearest 0.5 percent. The peak hours for each location were determined by analyzing the day in 15-minute periods and determining which peak hour was the most common. In addition, summary of the ADT for each segment along Cabela Drive is included on the attached figure.

Table 1: Summary of Daily Traffic by Segment

Cabela Drive Segment	2018 ADT (vpd)	Truck Percentage	Peak Hours
I-70 EB Ramps to I-70 WB Ramps	12,000	3.5%	8a – 9a 4p – 5p
I-70 WB Ramps to CR 41/5 Cruzer Road	23,500	2.5%	8a – 9a 3p – 4p
Stewart Ln to Target/Kohls Driveways	9,500	1.0%	8a – 9a 3p – 4p

Figure 1: 2018 Average Daily Traffic at the Highlands

The Highlands Development draws close to 25,000 vehicles per day to its existing retailers and is highly visible from I-70, which carries more than 53,0000 vehicles per day. The location has shown an increase since 2014 with traffic increasing along Cabela Drive and coming from I-70. As shown in Table 1, the total daily volume on Cabela Drive at the entrance to the Highlands Development is 23,500 vpd. Exhibit 1 illustrates the hourly distribution of traffic at this location. The peak hour is from 4:00-5:00 pm with 1,960 vph entering the Highlands; however, it should be noted the hourly volumes from 12:00 PM to 6:00 PM are similar and represent a peak time period for the development.

Exhibit 1: Cabela Drive Hourly Volume Distribution

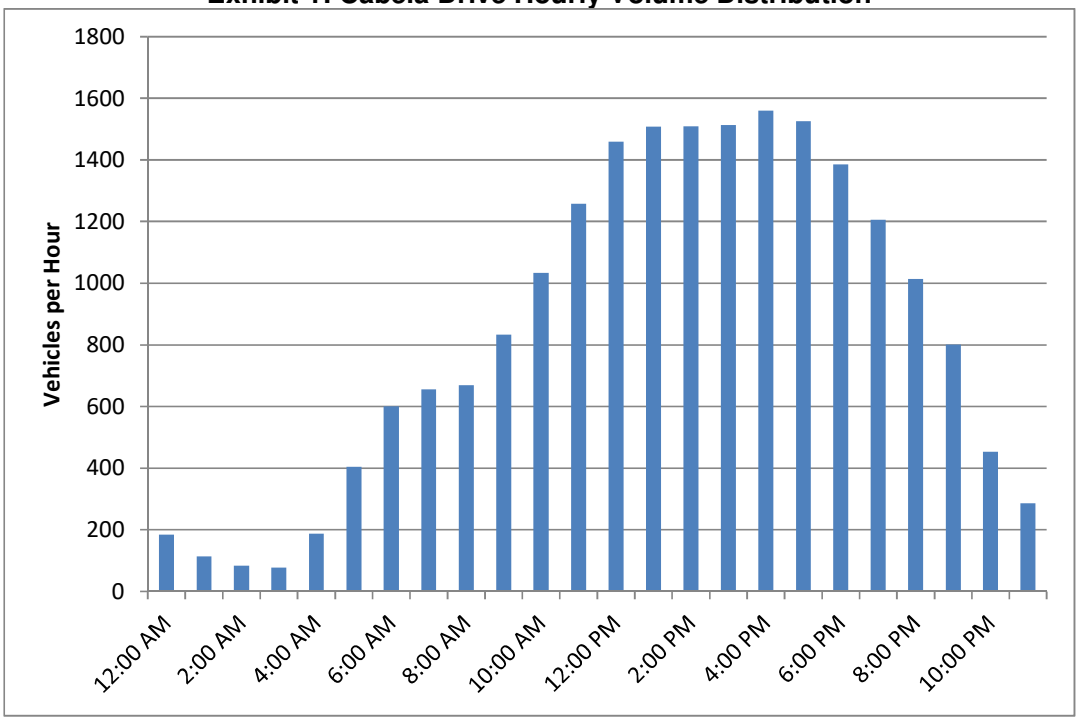
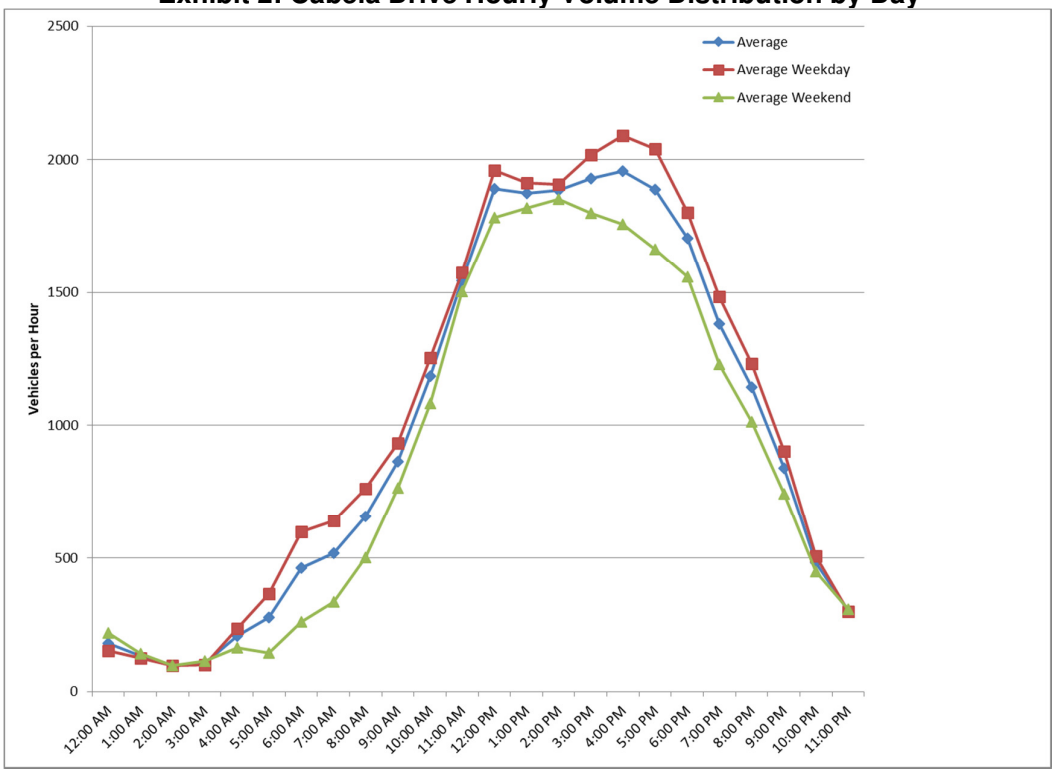


Exhibit 2 provides the hourly distribution for an average day, average weekday, and average weekend. As shown, the hourly distribution is very similar regardless of the day of the week.

Exhibit 2: Cabela Drive Hourly Volume Distribution by Day



Thank you for the opportunity to work with you on this project. If you have any questions or comments, please do not hesitate to contact me.

Sincerely yours,

HDR ENGINEERING, INC.

Amy Balmer Staud

Amy Balmer Staud, P.E., PTOE
Associate Vice President

Commercial/Office Trip Distribution Gravity Model

County	Census Tract[1]	On The Map - Job Counts by Census Tracts (Where Workers Live)[2]	Travel Route	Estimated Travel Time (Minute)	Gravity Model Per Census Tract (Count / Travel Time^2) [3]	Percent Distribution per Census Tract Within a 15-Minute Travel Radius
Ohio County, WV	2	842	I-70 West	14	4.2959183673	2.10%
	3	448	US 40 West	7	9.1428571429	4.47%
	4	202	US 40 West	9	2.4938271605	1.22%
	5	339	I-70 West	11	2.8016528926	1.37%
	6	252	I-70 West	11	2.0826446281	1.02%
	7	224	US 40 West	6	6.2222222222	3.04%
	13	342	I-70 West	10	3.4200000000	1.67%
	14	646	Mt. DeChantal	7	13.1836734694	6.45%
	15	629	US 40 East	3	69.8888888889	34.17%
	16	531	US 40 East	5	21.2400000000	10.38%
	17	477	US 40 East	8	7.4531250000	3.64%
	18	1144	I-70 East	12	7.9444444444	3.88%
	19.01	678	I-70 West	11	5.6033057851	2.74%
	20	345	Bethany Pike East	8	5.3906250000	2.64%
		346	GC&P Rd North	8	5.4062500000	2.64%
		346	Warden Run East	8	5.4062500000	2.64%
	21	239	Bethany Pike East	8	3.7343750000	1.83%
		240	Warden Run East	8	3.7500000000	1.83%
	22	346	I-70 East	15	1.5377777778	0.75%
	26	443	I-70 West	11	3.6611570248	1.79%
	27	200	I-70 West	8	3.1250000000	1.53%
Marshall County, WV	202	180	I-70 West	15	0.8000000000	0.39%
	205	195	I-70 West	10	1.9500000000	0.95%
	206.01	344	I-70 West	12	2.3888888889	1.17%
	207.02	187	I-70 West	15	0.8311111111	0.41%
	211	436	I-70 West	15	1.9377777778	0.95%
Belmont County, OH	101	453	I-70 West	15	2.0133333333	0.98%
	102	340	I-70 West	15	1.5111111111	0.74%
	115	127	I-70 West	15	0.5644444444	0.28%
	116	87	I-70 West	15	0.3866666667	0.19%
	117	135	I-70 West	15	0.6000000000	0.29%
	119	373	I-70 West	15	1.6577777778	0.81%
	121	138	I-70 West	15	0.6133333333	0.30%
	124	341	I-70 West	15	1.5155555556	0.74%
					204.5539948040	100.00%

Commercial/Office Trip Distribution Summary

Travel Route (To/From)	Distribution (%)	Final Primary Distbution %
I-70 West	20.41%	20%
I-70 East	4.64%	5%
US 40 West	8.73%	9%
US 40 East	48.19%	48%
Mt. DeChantal	6.45%	6%
GC&P Rd North	2.64%	3%
Warden Run East	4.48%	5%
Bethany Pike East	4.46%	4%
Total	100.00%	100%

(1) Census tracts for Ohio County, WV, Marshall County WV, and Belmont County, OH obtained from the United States Census website and database.

(2) Based on population survey job counts per Census Tract of where workers live within a 15-minute travel radius of the City of Wheeling Centroid, obtained from OnTheMap Version 6, a web-based mapping and reporting application provided by the United State Census that shows where workers are employed and where they live.

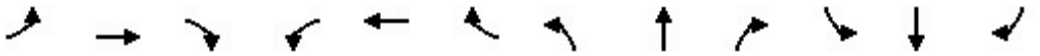
(3) A Gravity Model is a mathematical model used to estimate the number of trips that will be drawn to a development based on population and/or employment data and travel time. A gravity model is represented by the equation (population and/or employment data / (travel time to site)^2).

STAHL SHEAFFER ENGINEERING

Appendix H. Year of Full Build-Out 2030 Without Development (No Build) Synchro Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	341	224	3	11	320	93	195	42	50	141	2	497
Future Volume (vph)	341	224	3	11	320	93	195	42	50	141	2	497
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.99
Frt		0.998			0.967			0.976				0.850
Flt Protected	0.950				0.999			0.967			0.953	
Satd. Flow (prot)	1693	1685	0	0	3362	0	0	1713	0	0	1793	1584
Flt Permitted	0.291				0.944			0.601			0.643	
Satd. Flow (perm)	519	1685	0	0	3176	0	0	1063	0	0	1210	1560
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			37			10				585
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			2	2			2					2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	11%	0%	0%	3%	2%	1%	0%	2%	2%	0%	3%
Adj. Flow (vph)	401	264	4	13	376	109	229	49	59	166	2	585
Shared Lane Traffic (%)												
Lane Group Flow (vph)	401	268	0	0	498	0	0	337	0	0	168	585
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			4	
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	17.0
Total Split (s)	20.0	50.0		30.0	30.0		25.0	25.0		25.0	25.0	25.0
Total Split (%)	21.1%	52.6%		31.6%	31.6%		26.3%	26.3%		26.3%	26.3%	26.3%
Maximum Green (s)	15.0	45.0		25.0	25.0		20.0	20.0		20.0	20.0	20.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	46.0	46.0			26.0			20.0			20.0	20.0
Actuated g/C Ratio	0.48	0.48			0.27			0.21			0.21	0.21
v/c Ratio	0.92	0.33			0.56			1.46			0.66	0.74
Control Delay	45.2	16.1			30.0			258.9			48.5	9.4
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	45.2	16.1			30.0			258.9			48.5	9.4
LOS	D	B			C			F			D	A
Approach Delay		33.5			30.0			258.9			18.1	
Approach LOS		C			C			F			B	
Queue Length 50th (ft)	240	148			124			~277			93	0
Queue Length 95th (ft)	#338	216			164			#417			154	63
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	436	816			896			231			254	790
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.92	0.33			0.56			1.46			0.66	0.74

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 46 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	Ped
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

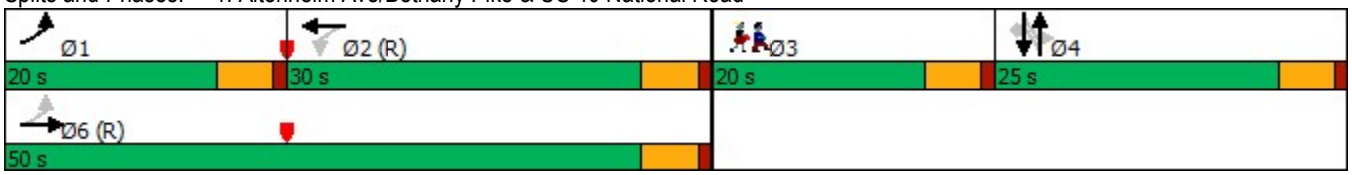
Intersection Summary

Intersection Signal Delay: 61.3	Intersection LOS: E
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

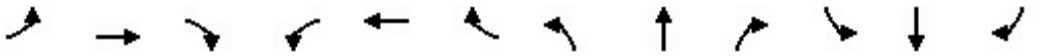
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	244	2	0	314	3	0	0	0	7	0	261
Future Volume (vph)	138	244	2	0	314	3	0	0	0	7	0	261
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999						0.869	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	0%	0%	3%	0%	0%	0%	0%	17%	0%	2%
Adj. Flow (vph)	153	271	2	0	349	3	0	0	0	8	0	290
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	273	0	0	352	0	0	0	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

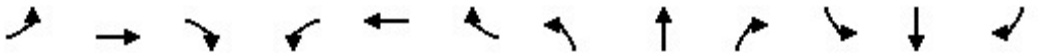
Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	244	2	0	314	3	0	0	0	7	0	261
Future Vol, veh/h	138	244	2	0	314	3	0	0	0	7	0	261
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	2	0	0	3	0	0	0	0	17	0	2
Mvmt Flow	153	271	2	0	349	3	0	0	0	8	0	290

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	273	0	0	1074	931	272	930	931	352
Stage 1	-	-	-	-	-	-	578	578	-	352	352	-
Stage 2	-	-	-	-	-	-	496	353	-	578	579	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.5	6.9	6.4	7.07	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.3	3.653	4	3.318
Pot Cap-1 Maneuver	1179	-	-	1302	-	-	177	243	760	245	283	698
Stage 1	-	-	-	-	-	-	474	473	-	647	648	-
Stage 2	-	-	-	-	-	-	529	610	-	492	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1178	-	-	1302	-	-	93	211	760	221	246	697
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	211	-	221	246	-
Stage 1	-	-	-	-	-	-	412	412	-	562	647	-
Stage 2	-	-	-	-	-	-	309	609	-	428	452	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	0	14.9
HCM LOS			A	B

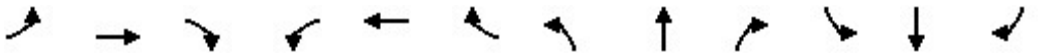
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1178	-	-	1302	-	-	660
HCM Lane V/C Ratio	-	0.13	-	-	-	-	-	0.451
HCM Control Delay (s)	0	8.5	-	-	0	-	-	14.9
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	2.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	244	2	0	314	3	0	0	0	7	0	261
Future Volume (Veh/h)	138	244	2	0	314	3	0	0	0	7	0	261
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	153	271	2	0	349	3	0	0	0	8	0	290
Pedestrians											1	
Lane Width (ft)											11.0	
Walking Speed (ft/s)											3.5	
Percent Blockage											0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	353			273			1218	931	272	928	930	352
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	353			273			1218	931	272	928	930	352
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.7	4.0	3.3
p0 queue free %	87			100			100	100	100	96	100	58
cM capacity (veh/h)	1177			1302			83	234	771	210	234	691

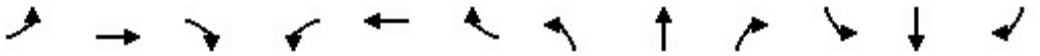
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	153	273	352	0	298
Volume Left	153	0	0	0	8
Volume Right	0	2	3	0	290
cSH	1177	1700	1302	1700	651
Volume to Capacity	0.13	0.16	0.00	0.00	0.46
Queue Length 95th (ft)	11	0	0	0	60
Control Delay (s)	8.5	0.0	0.0	0.0	15.1
Lane LOS	A			A	C
Approach Delay (s)	3.1		0.0	0.0	15.1
Approach LOS				A	C

Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	61.6%	ICU Level of Service		B
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	850	6	0	938	48	3	0	2	36	0	198
Future Volume (vph)	184	850	6	0	938	48	3	0	2	36	0	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.999			0.993			0.955				0.850
Flt Protected	0.950							0.968			0.950	
Satd. Flow (prot)	1787	3428	0	1900	3482	0	0	1664	0	0	1911	1689
Flt Permitted	0.119							0.844			0.754	
Satd. Flow (perm)	224	3428	0	1900	3482	0	0	1451	0	0	1516	1689
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			6			172				233
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)			5	5								
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	1%	5%	33%	0%	3%	2%	33%	0%	0%	6%	0%	1%
Adj. Flow (vph)	216	1000	7	0	1104	56	4	0	2	42	0	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	1007	0	0	1160	0	0	6	0	0	42	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	16.0	42.0					15.0	15.0		15.0	15.0	15.0
Total Split (%)	16.8%	44.2%					15.8%	15.8%		15.8%	15.8%	15.8%
Maximum Green (s)	11.0	37.0					10.0	10.0		10.0	10.0	10.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	44.0	44.0			42.7			10.0			10.0	10.0
Actuated g/C Ratio	0.46	0.46			0.45			0.11			0.11	0.11
v/c Ratio	0.79	0.63			0.74			0.02			0.26	0.60
Control Delay	42.5	19.5			3.1			0.2			43.8	12.8
Queue Delay	0.0	0.0			3.9			0.0			0.0	0.0
Total Delay	42.5	19.5			7.0			0.2			43.8	12.8
LOS	D	B			A			A			D	B
Approach Delay		23.6			7.0			0.2			17.5	
Approach LOS		C			A			A			B	
Queue Length 50th (ft)	78	209			28			0			24	0
Queue Length 95th (ft)	#163	238			m10			0			54	56
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	284	1588			1567			306			159	386
Starvation Cap Reductn	0	0			318			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.76	0.63			0.93			0.02			0.26	0.60

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

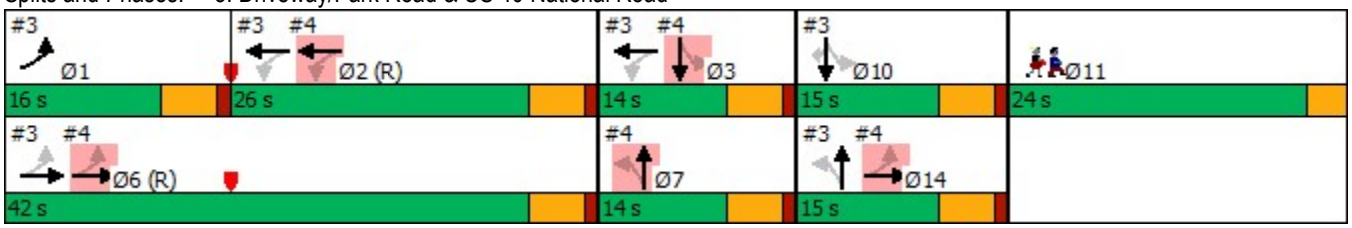
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	26.0	14.0	14.0	24.0
Total Split (%)	27%	15%	15%	25%
Maximum Green (s)	21.0	9.0	9.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	Ped
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				1
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
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: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	778	99	51	942	11	8	0	17	4	1	31
Future Volume (vph)	11	778	99	51	942	11	8	0	17	4	1	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.998			0.907			0.884	
Flt Protected		0.999		0.950				0.985			0.994	
Satd. Flow (prot)	0	3388	0	1770	3498	0	0	1656	0	0	1637	0
Flt Permitted		0.836		0.274				0.898			0.963	
Satd. Flow (perm)	0	2835	0	510	3498	0	0	1510	0	0	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			1			172			36	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	5%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	13	915	116	60	1108	13	9	0	20	5	1	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1044	0	60	1121	0	0	29	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				26.0	26.0		14.0	14.0		14.0	14.0	
Total Split (%)				27.4%	27.4%		14.7%	14.7%		14.7%	14.7%	
Maximum Green (s)				21.0	21.0		9.0	9.0		9.0	9.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		54.0		28.7	28.7			9.0			9.0	
Actuated g/C Ratio		0.57		0.30	0.30			0.09			0.09	
v/c Ratio		0.64		0.39	1.06			0.10			0.23	
Control Delay		4.1		37.5	76.1			0.6			19.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		4.1		37.5	76.1			0.6			19.4	
LOS		A		D	E			A			B	
Approach Delay		4.1			74.1			0.6			19.4	
Approach LOS		A			E			A			B	
Queue Length 50th (ft)		34		32	~397			0			3	
Queue Length 95th (ft)		16		m46	m#410			0			32	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		1620		154	1056			298			182	
Starvation Cap Reductn		5		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.65		0.39	1.06			0.10			0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 40.3		Intersection LOS: D	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	16.0	42.0	15.0	24.0	15.0
Total Split (%)	17%	44%	16%	25%	16%
Maximum Green (s)	11.0	37.0	10.0	21.0	10.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	Ped	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				1	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

Intersection Summary

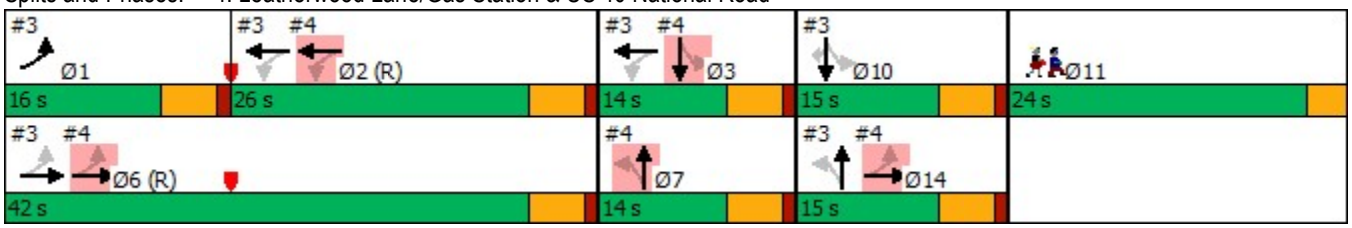
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



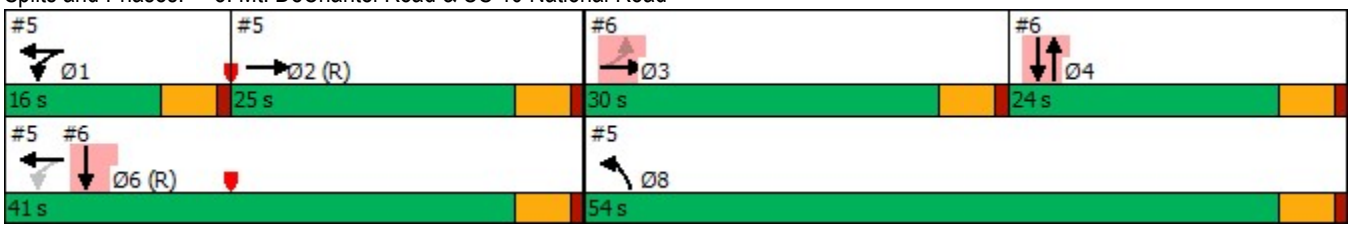
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	160	130	297	862	245	0			
Future Volume (vph)	160	130	297	862	245	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.933								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3034	0	1652	3388	3271	0			
Flt Permitted			0.386		0.950				
Satd. Flow (perm)	3034	0	671	3388	3271	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	144								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Heavy Vehicles (%)	10%	4%	2%	3%	4%	0%			
Adj. Flow (vph)	178	144	330	958	272	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	322	0	330	958	272	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

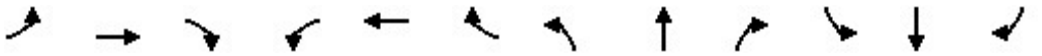
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	25.0		16.0		54.0		30.0	24.0	41.0
Total Split (%)	26.3%		16.8%		56.8%		32%	25%	43%
Maximum Green (s)	20.0		11.0		49.0		25.0	19.0	36.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	20.3		36.3	36.3	48.7				
Actuated g/C Ratio	0.21		0.38	0.38	0.51				
v/c Ratio	0.42		0.89	0.74	0.16				
Control Delay	19.5		48.6	30.7	4.8				
Queue Delay	0.0		0.0	0.0	1.5				
Total Delay	19.5		48.6	30.7	6.4				
LOS	B		D	C	A				
Approach Delay	19.5			35.3	6.4				
Approach LOS	B			D	A				
Queue Length 50th (ft)	47		207	322	16				
Queue Length 95th (ft)	88		m#346	391	m15				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	760		369	1292	1687				
Starvation Cap Reductn	0		0	0	1218				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.42		0.89	0.74	0.58				

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 28.4		Intersection LOS: C	
Intersection Capacity Utilization 44.5%		ICU Level of Service A	
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: 5: Mt. DeChantel Road & US 40 National Road

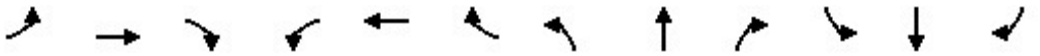


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	630	86	0	0	0	0	188	274	0	427	0
Future Volume (vph)	57	630	86	0	0	0	0	188	274	0	427	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.983						0.911				
Flt Protected		0.996										
Satd. Flow (prot)	0	3435	0	0	0	0	0	3237	0	0	2080	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3435	0	0	0	0	0	3237	0	0	2080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						315				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)							2					2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	4%	0%	0%	0%	0%	5%	5%	5%	0%	3%	0%
Adj. Flow (vph)	66	724	99	0	0	0	0	216	315	0	491	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	889	0	0	0	0	0	531	0	0	491	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	30.0	30.0						24.0				
Total Split (%)	31.6%	31.6%						25.3%				
Maximum Green (s)	25.0	25.0						19.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		25.0						18.7			60.0	
Actuated g/C Ratio		0.26						0.20			0.63	
v/c Ratio		0.97						0.60			0.37	
Control Delay		59.0						23.6			2.9	
Queue Delay		0.0						0.0			2.8	
Total Delay		59.0						23.6			5.7	
LOS		E						C			A	
Approach Delay		59.0						23.6			5.7	
Approach LOS		E						C			A	
Queue Length 50th (ft)		275						88			21	
Queue Length 95th (ft)		#383						124			m37	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		914						899			1297	
Starvation Cap Reductn		0						0			672	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.97						0.59			0.79	

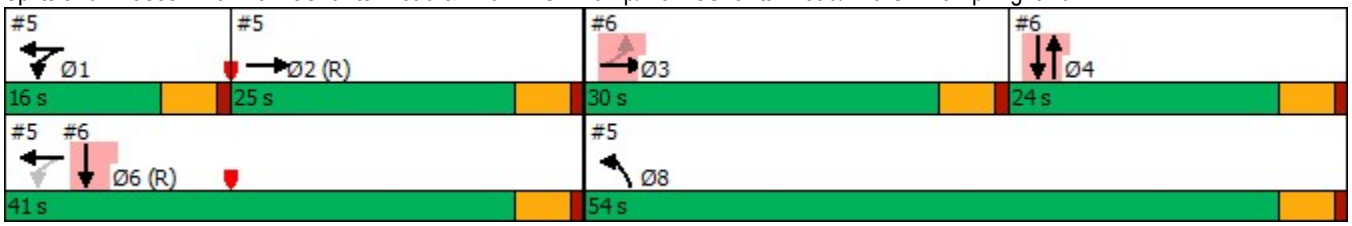
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 35.5		Intersection LOS: D	
Intersection Capacity Utilization 52.6%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	16.0	25.0	41.0	54.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	11.0	20.0	36.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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

Splits and Phases: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

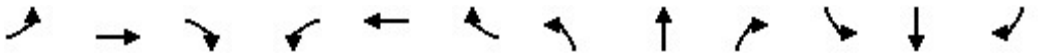
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	160	0	0	1159	0	905
Future Volume (vph)	160	0	0	1159	0	905
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	2963	0	0	4398	0	2470
Flt Permitted						
Satd. Flow (perm)	2963	0	0	4398	0	2470
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	9%	0%	0%	2%	0%	4%
Adj. Flow (vph)	188	0	0	1364	0	1065
Shared Lane Traffic (%)						
Lane Group Flow (vph)	188	0	0	1364	0	1065
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	160	0	0	1159	0	905
Future Volume (Veh/h)	160	0	0	1159	0	905
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	188	0	0	1364	0	1065
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.87	
vC, conflicting volume			188		643	94
vC1, stage 1 conf vol					188	
vC2, stage 2 conf vol					455	
vCu, unblocked vol			188		70	94
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1398		811	938

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	94	94	455	455	455	532	532
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	532	532
cSH	1700	1700	1700	1700	1700	938	938
Volume to Capacity	0.06	0.06	0.27	0.27	0.27	0.57	0.57
Queue Length 95th (ft)	0	0	0	0	0	92	92
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	13.8	13.8
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			13.8	
Approach LOS						B	

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	4	0	83	52	368	0	0	252	262
Future Volume (vph)	0	0	0	4	0	83	52	368	0	0	252	262
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.931	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	5%	0%	0%	1%	5%
Adj. Flow (vph)	0	0	0	4	0	92	58	409	0	0	280	291
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	4	0	92	58	409	0	0	571	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

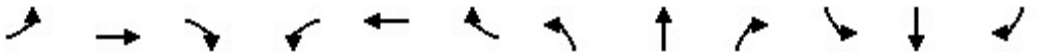
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	83	52	368	0	0	252	262
Future Vol, veh/h	0	0	0	4	0	83	52	368	0	0	252	262
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	2	3	5	0	0	1	5
Mvmt Flow	0	0	0	4	0	92	58	409	0	0	280	291

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	951	-	409	571	0	-	-	-	0	
Stage 1	525	-	-	-	-	-	-	-	-	
Stage 2	426	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.13	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.227	-	-	-	-	-	
Pot Cap-1 Maneuver	306	0	650	997	-	0	0	-	-	
Stage 1	615	0	-	-	-	0	0	-	-	
Stage 2	679	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	288	0	650	997	-	-	-	-	-	
Mov Cap-2 Maneuver	288	0	-	-	-	-	-	-	-	
Stage 1	579	0	-	-	-	-	-	-	-	
Stage 2	679	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	11.8	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	997	-	288	650	-	-
HCM Lane V/C Ratio	0.058	-	0.015	0.142	-	-
HCM Control Delay (s)	8.8	-	17.7	11.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	4	0	83	52	368	0	0	252	262
Future Volume (Veh/h)	0	0	0	4	0	83	52	368	0	0	252	262
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	4	0	92	58	409	0	0	280	291
Pedestrians					2							
Lane Width (ft)					15.0							
Walking Speed (ft/s)					3.5							
Percent Blockage					0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.90	0.90	0.88	0.90	0.90	0.95	0.88			0.95		
vC, conflicting volume	950	952	426	952	1098	411	571			411		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	758	760	274	760	921	349	440			349		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	86	94			100		
cM capacity (veh/h)	241	286	675	279	231	655	977			1153		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	4	92	58	409	571
Volume Left	4	0	58	0	0
Volume Right	0	92	0	0	291
cSH	279	655	977	1700	1700
Volume to Capacity	0.01	0.14	0.06	0.24	0.34
Queue Length 95th (ft)	1	12	5	0	0
Control Delay (s)	18.1	11.4	8.9	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	11.7		1.1		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	49.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	72	339	70	139	99
Future Volume (vph)	6	72	339	70	139	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1652	1783	1714	1856	1997
Flt Permitted	0.950				0.478	
Satd. Flow (perm)	1787	1652	1783	1676	933	1997
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		81		79		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Confl. Peds. (#/hr)				2	2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	6%	0%	0%	1%
Adj. Flow (vph)	7	81	381	79	156	111
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	81	381	79	156	111
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex

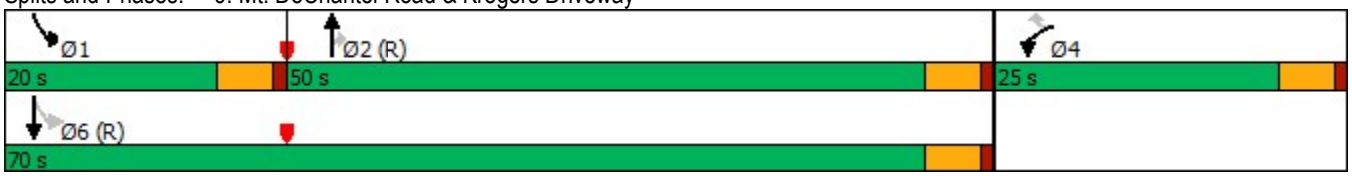
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	50.0	50.0	20.0	70.0
Total Split (%)	26.3%	26.3%	52.6%	52.6%	21.1%	73.7%
Maximum Green (s)	20.0	20.0	45.0	45.0	15.0	65.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.7	8.7	67.6	67.6	78.8	79.8
Actuated g/C Ratio	0.09	0.09	0.71	0.71	0.83	0.84
v/c Ratio	0.04	0.36	0.30	0.07	0.19	0.07
Control Delay	38.7	14.0	6.8	1.6	1.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	14.0	6.8	1.6	1.8	1.4
LOS	D	B	A	A	A	A
Approach Delay	16.0		5.9			1.7
Approach LOS	B		A			A
Queue Length 50th (ft)	4	0	77	0	7	5
Queue Length 95th (ft)	16	41	143	15	m19	m14
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	376	411	1267	1214	919	1678
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.30	0.07	0.17	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 60 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 5.6		Intersection LOS: A	
Intersection Capacity Utilization 42.2%		ICU Level of Service A	

Analysis Period (min) 15

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	72	339	70	139	99
Future Volume (veh/h)	6	72	339	70	139	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1952	1805	1970	1970	1954
Adj Flow Rate, veh/h	7	81	381	79	156	111
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	6	0	0	1
Cap, veh/h	118	109	1308	1208	811	1620
Arrive On Green	0.07	0.07	0.72	0.72	0.09	1.00
Sat Flow, veh/h	1787	1654	1805	1667	1876	1954
Grp Volume(v), veh/h	7	81	381	79	156	111
Grp Sat Flow(s),veh/h/ln	1787	1654	1805	1667	1876	1954
Q Serve(g_s), s	0.3	4.6	7.0	1.3	1.8	0.0
Cycle Q Clear(g_c), s	0.3	4.6	7.0	1.3	1.8	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	118	109	1308	1208	811	1620
V/C Ratio(X)	0.06	0.74	0.29	0.07	0.19	0.07
Avail Cap(c_a), veh/h	376	348	1308	1208	1010	1620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	43.6	4.6	3.8	2.5	0.0
Incr Delay (d2), s/veh	0.4	19.0	0.6	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.4	0.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.1	62.6	5.1	3.9	2.6	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	88		460			267
Approach Delay, s/veh	61.0		4.9			1.5
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	73.8		11.3		83.7
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	45.0		20.0		65.0
Max Q Clear Time (g_c+I1), s	3.8	9.0		6.6		2.0
Green Ext Time (p_c), s	0.2	6.1		0.4		1.4

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	285	42	738	359	0	0
Future Volume (vph)	285	42	738	359	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.981					
Flt Protected				0.967		
Satd. Flow (prot)	2986	0	0	3023	0	0
Flt Permitted				0.967		
Satd. Flow (perm)	2986	0	0	3023	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	7%	0%	3%	4%	0%	0%
Adj. Flow (vph)	328	48	848	413	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	376	0	0	1261	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	285	42	738	359	0	0
Future Volume (Veh/h)	285	42	738	359	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	328	48	848	413	0	0
Pedestrians					2	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.76	
vC, conflicting volume			330		2256	190
vC1, stage 1 conf vol					354	
vC2, stage 2 conf vol					1902	
vCu, unblocked vol			330		2019	190
tC, single (s)			4.2		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			30		100	100
cM capacity (veh/h)			1219		37	826

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	219	157	986	275
Volume Left	0	0	848	0
Volume Right	0	48	0	0
cSH	1700	1700	1219	1700
Volume to Capacity	0.13	0.09	0.70	0.16
Queue Length 95th (ft)	0	0	152	0
Control Delay (s)	0.0	0.0	13.9	0.0
Lane LOS			B	
Approach Delay (s)	0.0		10.9	
Approach LOS				

Intersection Summary			
Average Delay	8.4		
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	58	2	183	60	3	247
Future Volume (vph)	58	2	183	60	3	247
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996		0.967			
Flt Protected	0.954					0.999
Satd. Flow (prot)	1591	0	1608	0	0	1563
Flt Permitted	0.954					0.999
Satd. Flow (perm)	1591	0	1608	0	0	1563
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	3%	4%	0%	3%
Adj. Flow (vph)	63	2	199	65	3	268
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	264	0	0	271
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	58	2	183	60	3	247
Future Vol, veh/h	58	2	183	60	3	247
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	4	0	3
Mvmt Flow	63	2	199	65	3	268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	506	232	0	0	264	0
Stage 1	232	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	487	797	-	-	1312	-
Stage 1	780	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	486	797	-	-	1312	-
Mov Cap-2 Maneuver	486	-	-	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	13.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	492	1312	-
HCM Lane V/C Ratio	-	-	0.133	0.002	-
HCM Control Delay (s)	-	-	13.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	58	2	183	60	3	247
Future Volume (Veh/h)	58	2	183	60	3	247
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	63	2	199	65	3	268
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	506	232			264	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	506	232			264	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	100			100	
cM capacity (veh/h)	528	812			1312	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	65	264	271
Volume Left	63	0	3
Volume Right	2	65	0
cSH	534	1700	1312
Volume to Capacity	0.12	0.16	0.00
Queue Length 95th (ft)	10	0	0
Control Delay (s)	12.7	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	12.7	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	384	0	0	575
Future Volume (vph)	0	0	384	0	0	575
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	427	0	0	639
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	427	0	0	639
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	384	0	0	575
Future Vol, veh/h	0	0	384	0	0	575
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	427	0	0	639

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1066	427	0	0	427	0
Stage 1	427	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	246	628	-	-	1132	-
Stage 1	658	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	628	-	-	1132	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1132	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	0	0	60	0	0
Future Volume (vph)	63	0	0	60	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	0	0	67	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	0	67	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 7.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	0	0	60	0	0
Future Vol, veh/h	63	0	0	60	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	0	0	67	0	0

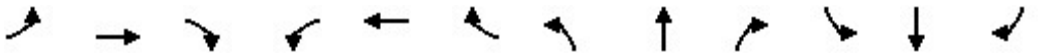
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	70	0	137	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	67	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1531	-	856	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	956	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1531	-	856	993
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	956	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1531	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	418	382	9	5	467	178	185	48	59	121	5	448
Future Volume (vph)	418	382	9	5	467	178	185	48	59	121	5	448
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99				0.98
Frt		0.996			0.959			0.973				0.850
Flt Protected	0.950							0.969			0.954	
Satd. Flow (prot)	1760	1810	0	0	3370	0	0	1718	0	0	1813	1553
Flt Permitted	0.244				0.952			0.662			0.608	
Satd. Flow (perm)	452	1810	0	0	3208	0	0	1166	0	0	1156	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			47			10				416
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			1	1			9					9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	2%	1%	1%	0%	0%	1%	0%	5%
Adj. Flow (vph)	449	411	10	5	502	191	199	52	63	130	5	482
Shared Lane Traffic (%)												
Lane Group Flow (vph)	449	421	0	0	698	0	0	314	0	0	135	482
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.0	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	76.2	76.2			48.2			25.0			25.0	48.0
Actuated g/C Ratio	0.66	0.66			0.42			0.22			0.22	0.42
v/c Ratio	0.80	0.35			0.51			1.20			0.54	0.55
Control Delay	40.1	9.6			25.8			160.5			49.0	5.9
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	40.1	9.6			25.8			160.5			49.0	5.9
LOS	D	A			C			F			D	A
Approach Delay		25.3			25.8			160.5			15.3	
Approach LOS		C			C			F			B	
Queue Length 50th (ft)	197	104			172			~278			89	27
Queue Length 95th (ft)	#394	182			300			#459			157	100
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	561	1199			1372			261			251	884
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.80	0.35			0.51			1.20			0.54	0.55

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

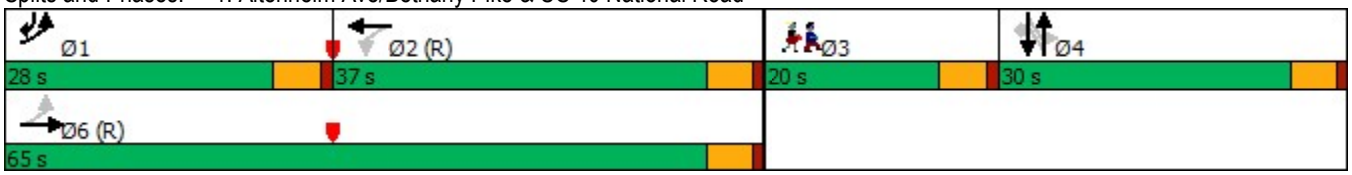
Intersection Summary

Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 77.4%	ICU Level of Service D
Analysis Period (min) 15	

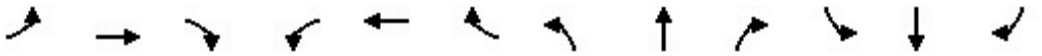
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	223	334	0	0	316	10	1	0	0	6	0	175
Future Volume (vph)	223	334	0	0	316	10	1	0	0	6	0	175
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996						0.870	
Flt Protected	0.950							0.950			0.998	
Satd. Flow (prot)	1569	1708	0	0	1637	0	0	1812	0	0	1407	0
Flt Permitted	0.950							0.950			0.998	
Satd. Flow (perm)	1569	1708	0	0	1637	0	0	1812	0	0	1407	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	253	380	0	0	359	11	1	0	0	7	0	199
Shared Lane Traffic (%)												
Lane Group Flow (vph)	253	380	0	0	370	0	0	1	0	0	206	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

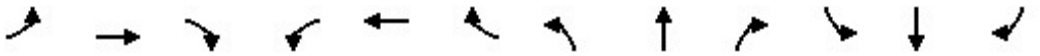
Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	223	334	0	0	316	10	1	0	0	6	0	175
Future Vol, veh/h	223	334	0	0	316	10	1	0	0	6	0	175
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	253	380	0	0	359	11	1	0	0	7	0	199

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	370	0	0	380	0	0	1350	1256	380	1251	1251	365
Stage 1	-	-	-	-	-	-	886	886	-	365	365	-
Stage 2	-	-	-	-	-	-	464	370	-	886	886	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1200	-	-	1190	-	-	111	150	657	162	187	687
Stage 1	-	-	-	-	-	-	310	331	-	672	640	-
Stage 2	-	-	-	-	-	-	553	599	-	359	384	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1200	-	-	1190	-	-	66	118	657	136	148	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	118	-	136	148	-
Stage 1	-	-	-	-	-	-	245	261	-	530	640	-
Stage 2	-	-	-	-	-	-	393	599	-	283	303	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.5	0	60.5	14
HCM LOS			F	B

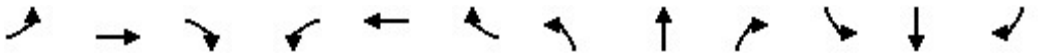
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	66	1200	-	-	1190	-	-	606
HCM Lane V/C Ratio	0.017	0.211	-	-	-	-	-	0.339
HCM Control Delay (s)	60.5	8.8	-	-	0	-	-	14
HCM Lane LOS	F	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.8	-	-	0	-	-	1.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	223	334	0	0	316	10	1	0	0	6	0	175
Future Volume (Veh/h)	223	334	0	0	316	10	1	0	0	6	0	175
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	253	380	0	0	359	11	1	0	0	7	0	199
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	370			380			1450	1256	380	1250	1250	364
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	370			380			1450	1256	380	1250	1250	364
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	79			100			98	100	100	94	100	71
cM capacity (veh/h)	1200			1190			65	136	671	126	138	681

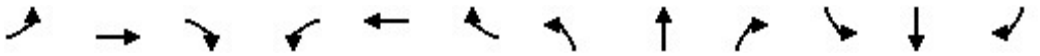
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	253	380	370	1	206
Volume Left	253	0	0	1	7
Volume Right	0	0	11	0	199
cSH	1200	1700	1190	65	592
Volume to Capacity	0.21	0.22	0.00	0.02	0.35
Queue Length 95th (ft)	20	0	0	1	39
Control Delay (s)	8.8	0.0	0.0	61.2	14.3
Lane LOS	A			F	B
Approach Delay (s)	3.5		0.0	61.2	14.3
Approach LOS				F	B

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	61.2%	ICU Level of Service		B
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	959	12	5	1101	48	5	0	6	62	0	175
Future Volume (vph)	136	959	12	5	1101	48	5	0	6	62	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00				0.99
Frt		0.998			0.994			0.921				0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1752	3531	0	1805	3515	0	0	1982	0	0	2025	1705
Flt Permitted	0.132			0.265				0.914			0.750	
Satd. Flow (perm)	243	3531	0	501	3515	0	0	1848	0	0	1599	1682
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			142				192
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		16	16		1	1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	149	1054	13	5	1210	53	5	0	7	68	0	192
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	1067	0	5	1263	0	0	12	0	0	68	192
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	71.0	71.0		72.8	72.8			18.0			18.0	18.0
Actuated g/C Ratio	0.62	0.62		0.63	0.63			0.16			0.16	0.16
v/c Ratio	0.55	0.49		0.02	0.57			0.03			0.27	0.45
Control Delay	20.0	11.3		0.4	1.4			0.1			46.1	9.8
Queue Delay	0.0	0.0		0.0	0.2			0.0			0.0	0.0
Total Delay	20.0	11.3		0.4	1.6			0.1			46.1	9.8
LOS	B	B		A	A			A			D	A
Approach Delay		12.3			1.6			0.1			19.3	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	41	177		0	10			0			45	0
Queue Length 95th (ft)	87	214		m0	11			0			89	64
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	346	2180		317	2227			409			250	425
Starvation Cap Reductn	0	0		0	292			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.43	0.49		0.02	0.65			0.03			0.27	0.45

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

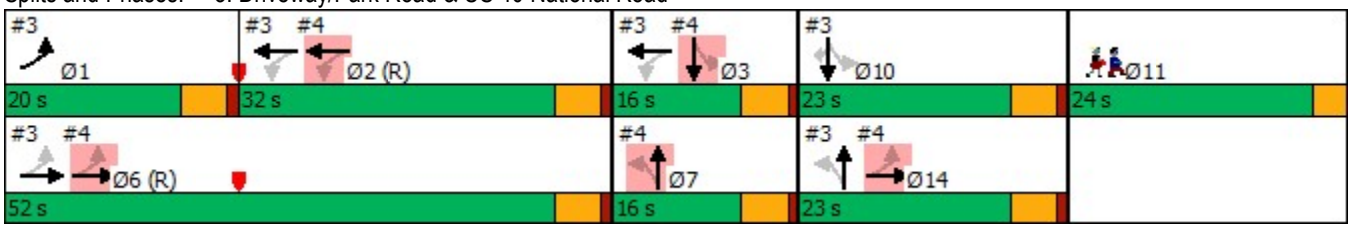
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

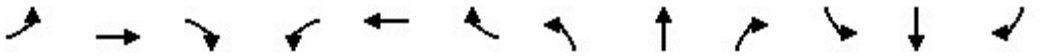
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	961	63	39	1075	13	45	0	35	7	1	30
Future Volume (vph)	3	961	63	39	1075	13	45	0	35	7	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.998			0.941			0.894	
Flt Protected				0.950				0.973			0.991	
Satd. Flow (prot)	0	3507	0	1770	3532	0	0	1697	0	0	1650	0
Flt Permitted		0.953		0.070				0.845			0.949	
Satd. Flow (perm)	0	3343	0	130	3532	0	0	1474	0	0	1580	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			1			142			33	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	1056	69	43	1181	14	49	0	38	8	1	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1128	0	43	1195	0	0	87	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6 14			2			7			3	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	1	6	10	11	14

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.0		56.8	56.8			11.0			11.0	
Actuated g/C Ratio		0.82		0.49	0.49			0.10			0.10	
v/c Ratio		0.41		0.67	0.68			0.32			0.23	
Control Delay		1.5		65.8	21.4			4.5			23.8	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.6		65.8	21.4			4.5			23.8	
LOS		A		E	C			A			C	
Approach Delay		1.6			23.0			4.5			23.8	
Approach LOS		A			C			A			C	
Queue Length 50th (ft)		5		16	253			0			6	
Queue Length 95th (ft)		37		m#68	m314			10			42	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2734		64	1745			269			180	
Starvation Cap Reductn		361		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.48		0.67	0.68			0.32			0.23	

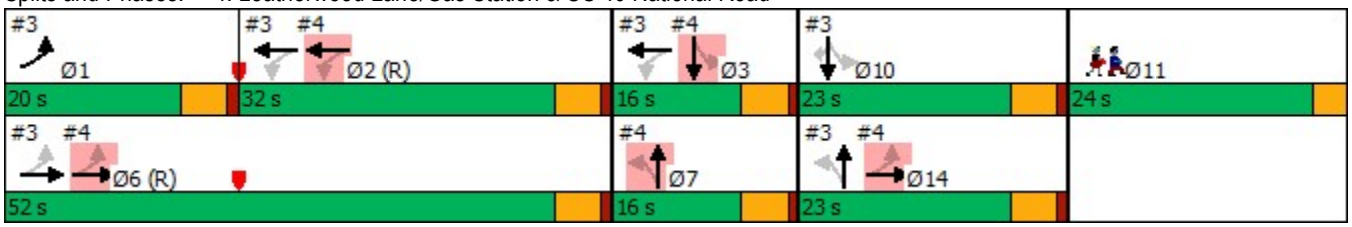
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

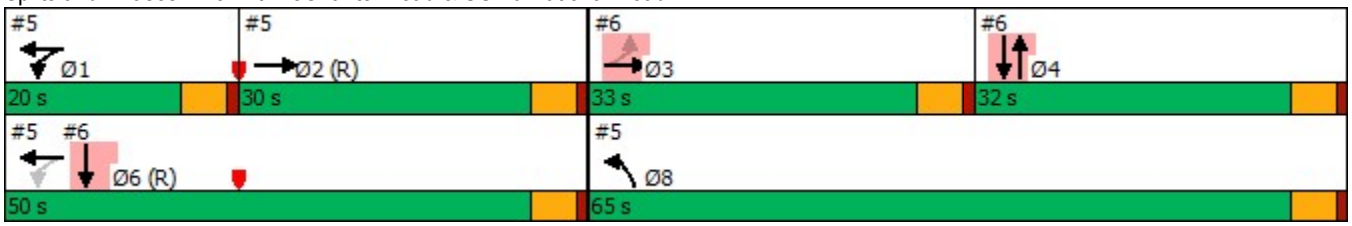
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	235	152	321	977	396	0			
Future Volume (vph)	235	152	321	977	396	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.941								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3140	0	1636	3455	3240	0			
Flt Permitted			0.287		0.950				
Satd. Flow (perm)	3140	0	494	3455	3240	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	118								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Heavy Vehicles (%)	3%	7%	3%	1%	5%	0%			
Adj. Flow (vph)	264	171	361	1098	445	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	435	0	361	1098	445	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	25.6		45.6	45.6	59.4				
Actuated g/C Ratio	0.22		0.40	0.40	0.52				
v/c Ratio	0.55		1.05	0.80	0.27				
Control Delay	31.6		106.0	50.1	5.5				
Queue Delay	0.0		0.0	0.0	2.7				
Total Delay	31.6		106.0	50.1	8.2				
LOS	C		F	D	A				
Approach Delay	31.6			63.9	8.2				
Approach LOS	C			E	A				
Queue Length 50th (ft)	110		~247	344	27				
Queue Length 95th (ft)	161		#382	465	m31				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	790		345	1369	1690				
Starvation Cap Reductn	0		0	0	1104				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.55		1.05	0.80	0.76				

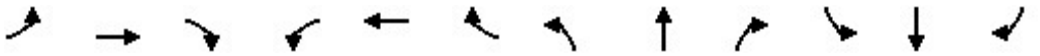
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 47.3		Intersection LOS: D	
Intersection Capacity Utilization 52.9%		ICU Level of Service A	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

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

Splits and Phases: 5: Mt. DeChantel Road & US 40 National Road

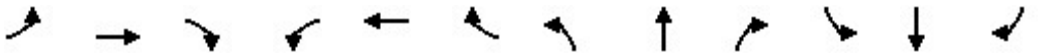


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	628	133	0	0	0	0	325	320	0	473	0
Future Volume (vph)	70	628	133	0	0	0	0	325	320	0	473	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99				
Frt		0.976						0.926				
Flt Protected		0.996										
Satd. Flow (prot)	0	3476	0	0	0	0	0	3323	0	0	2101	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3474	0	0	0	0	0	3323	0	0	2101	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						203				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)	4		4	4		4	7		5	5		7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	1%	0%	0%	0%	0%	0%	5%	1%	0%	2%	0%
Adj. Flow (vph)	74	661	140	0	0	0	0	342	337	0	498	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	875	0	0	0	0	0	679	0	0	498	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		28.0						26.4			77.0	
Actuated g/C Ratio		0.24						0.23			0.67	
v/c Ratio		1.02						0.74			0.35	
Control Delay		77.9						30.6			2.5	
Queue Delay		0.0						0.0			4.5	
Total Delay		77.9						30.6			7.0	
LOS		E						C			A	
Approach Delay		77.9						30.6			7.0	
Approach LOS		E						C			A	
Queue Length 50th (ft)		~347						174			26	
Queue Length 95th (ft)		#485						210			m25	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		859						935			1399	
Starvation Cap Reductn		0						0			811	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.02						0.73			0.85	

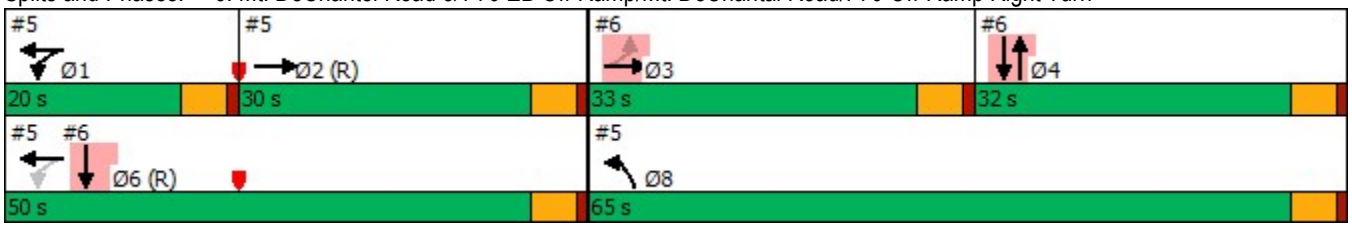
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 45.1		Intersection LOS: D	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

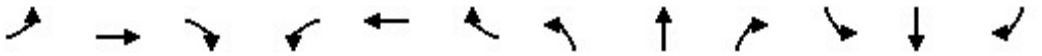
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	235	0	0	1298	0	948
Future Volume (vph)	235	0	0	1298	0	948
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3106	0	0	4398	0	2543
Flt Permitted						
Satd. Flow (perm)	3106	0	0	4398	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	0%	2%	0%	1%
Adj. Flow (vph)	253	0	0	1396	0	1019
Shared Lane Traffic (%)						
Lane Group Flow (vph)	253	0	0	1396	0	1019
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	235	0	0	1298	0	948
Future Volume (Veh/h)	235	0	0	1298	0	948
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	253	0	0	1396	0	1019
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.91	
vC, conflicting volume			253		718	126
vC1, stage 1 conf vol					253	
vC2, stage 2 conf vol					465	
vCu, unblocked vol			253		345	126
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1324		713	903

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	126	126	465	465	465	510	510
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	510	510
cSH	1700	1700	1700	1700	1700	903	903
Volume to Capacity	0.07	0.07	0.27	0.27	0.27	0.56	0.56
Queue Length 95th (ft)	0	0	0	0	0	90	90
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	14.0	14.0
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			14.0	
Approach LOS						B	

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	179	95	442	0	0	331	274
Future Volume (vph)	0	0	0	2	0	179	95	442	0	0	331	274
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)	6					6			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	4%	4%
Adj. Flow (vph)	0	0	0	2	0	188	100	465	0	0	348	288
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	188	100	465	0	0	636	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

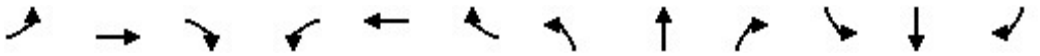
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	179	95	442	0	0	331	274
Future Vol, veh/h	0	0	0	2	0	179	95	442	0	0	331	274
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	2	0	4	0	0	4	4
Mvmt Flow	0	0	0	2	0	188	100	465	0	0	348	288

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	1157	-	471	636	0	-	-	-	0	
Stage 1	665	-	-	-	-	-	-	-	-	
Stage 2	492	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.1	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.2	-	-	-	-	-	
Pot Cap-1 Maneuver	234	0	601	957	-	0	0	-	-	
Stage 1	534	0	-	-	-	0	0	-	-	
Stage 2	636	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	210	0	598	957	-	-	-	-	-	
Mov Cap-2 Maneuver	210	0	-	-	-	-	-	-	-	
Stage 1	478	0	-	-	-	-	-	-	-	
Stage 2	636	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	13.9	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	957	-	210	598	-	-
HCM Lane V/C Ratio	0.104	-	0.01	0.315	-	-
HCM Control Delay (s)	9.2	-	22.3	13.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0	1.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	2	0	179	95	442	0	0	331	274
Future Volume (Veh/h)	0	0	0	2	0	179	95	442	0	0	331	274
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	2	0	188	100	465	0	0	348	288
Pedestrians					2						6	
Lane Width (ft)					15.0						12.0	
Walking Speed (ft/s)					3.5						3.5	
Percent Blockage					0						1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.91	0.91	0.89	0.91	0.91	0.95	0.89			0.95		
vC, conflicting volume	1163	1159	492	1159	1303	473	636			467		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	999	995	363	995	1153	415	525			409		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	69	89			100		
cM capacity (veh/h)	128	200	608	188	162	599	932			1096		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	2	188	100	465	636
Volume Left	2	0	100	0	0
Volume Right	0	188	0	0	288
cSH	188	599	932	1700	1700
Volume to Capacity	0.01	0.31	0.11	0.27	0.37
Queue Length 95th (ft)	1	33	9	0	0
Control Delay (s)	24.3	13.7	9.3	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	13.9		1.7		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	57.4%	ICU Level of Service	B	
Analysis Period (min)	15			

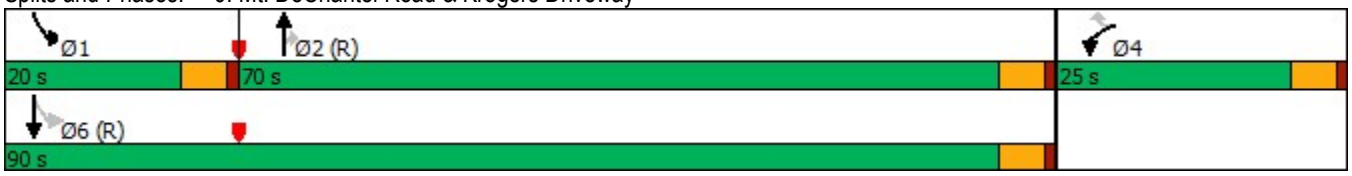
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	152	365	135	232	70
Future Volume (vph)	10	152	365	135	232	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1818	1697	1856	1977
Flt Permitted	0.950				0.470	
Satd. Flow (perm)	1787	1620	1818	1697	918	1977
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		167		148		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	4%	1%	0%	2%
Adj. Flow (vph)	11	167	401	148	255	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	167	401	148	255	77
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.6	9.6	82.6	82.6	95.4	95.4
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.07	0.58	0.31	0.12	0.31	0.05
Control Delay	47.7	15.8	7.2	1.3	7.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.8	7.2	1.3	7.8	5.3
LOS	D	B	A	A	A	A
Approach Delay	17.7		5.6			7.3
Approach LOS	B		A			A
Queue Length 50th (ft)	8	0	87	0	70	19
Queue Length 95th (ft)	26	63	176	22	m151	m40
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	419	1306	1261	883	1640
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.40	0.31	0.12	0.29	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 40 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 48.7%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	152	365	135	232	70
Future Volume (veh/h)	10	152	365	135	232	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1835	1954	1970	1939
Adj Flow Rate, veh/h	11	167	401	148	255	77
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	2	4	1	0	2
Cap, veh/h	219	199	1262	1140	717	1533
Arrive On Green	0.12	0.12	0.69	0.69	0.10	1.00
Sat Flow, veh/h	1787	1628	1835	1656	1876	1939
Grp Volume(v), veh/h	11	167	401	148	255	77
Grp Sat Flow(s),veh/h/ln	1787	1628	1835	1656	1876	1939
Q Serve(g_s), s	0.6	11.5	10.0	3.5	4.6	0.0
Cycle Q Clear(g_c), s	0.6	11.5	10.0	3.5	4.6	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	219	199	1262	1140	717	1533
V/C Ratio(X)	0.05	0.84	0.32	0.13	0.36	0.05
Avail Cap(c_a), veh/h	311	283	1262	1140	850	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	49.4	7.2	6.1	4.4	0.0
Incr Delay (d2), s/veh	0.2	20.5	0.7	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.9	4.0	1.3	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	69.9	7.8	6.4	4.5	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	178		549			332
Approach Delay, s/veh	68.3		7.4			3.5
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.8	84.1		19.1		95.9
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	6.6	12.0		13.5		2.0
Green Ext Time (p_c), s	0.3	7.6		0.6		1.0

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	366	79	755	544	0	0
Future Volume (vph)	366	79	755	544	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.973					
Flt Protected				0.972		
Satd. Flow (prot)	2998	0	0	3065	0	0
Flt Permitted				0.972		
Satd. Flow (perm)	2998	0	0	3065	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		3	3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	2%	3%	0%	0%
Adj. Flow (vph)	402	87	830	598	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	489	0	0	1428	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	366	79	755	544	0	0
Future Volume (Veh/h)	366	79	755	544	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	402	87	830	598	0	0
Pedestrians					3	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.72	
vC, conflicting volume			405		2408	248
vC1, stage 1 conf vol					448	
vC2, stage 2 conf vol					1959	
vCu, unblocked vol			405		2182	248
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			28		100	100
cM capacity (veh/h)			1150		32	759

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	268	221	1029	399
Volume Left	0	0	830	0
Volume Right	0	87	0	0
cSH	1700	1700	1150	1700
Volume to Capacity	0.16	0.13	0.72	0.23
Queue Length 95th (ft)	0	0	167	0
Control Delay (s)	0.0	0.0	15.2	0.0
Lane LOS			C	
Approach Delay (s)	0.0		11.0	
Approach LOS				

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	87	2	252	73	2	235
Future Volume (vph)	87	2	252	73	2	235
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997		0.970			
Flt Protected	0.953					
Satd. Flow (prot)	1576	0	1665	0	0	1549
Flt Permitted	0.953					
Satd. Flow (perm)	1576	0	1665	0	0	1549
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	0%	0%	0%	0%	4%
Adj. Flow (vph)	99	2	286	83	2	267
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	369	0	0	269
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	87	2	252	73	2	235
Future Vol, veh/h	87	2	252	73	2	235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	0	0	4
Mvmt Flow	99	2	286	83	2	267

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	599	328	0	0	369	0
Stage 1	328	-	-	-	-	-
Stage 2	271	-	-	-	-	-
Critical Hdwy	7.01	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.01	-	-	-	-	-
Critical Hdwy Stg 2	6.01	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	422	699	-	-	1201	-
Stage 1	693	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	421	699	-	-	1201	-
Mov Cap-2 Maneuver	421	-	-	-	-	-
Stage 1	693	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	16.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	425	1201	-
HCM Lane V/C Ratio	-	-	0.238	0.002	-
HCM Control Delay (s)	-	-	16.1	8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	87	2	252	73	2	235
Future Volume (Veh/h)	87	2	252	73	2	235
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	99	2	286	83	2	267
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	598	328			369	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	598	328			369	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	100			100	
cM capacity (veh/h)	465	718			1201	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	101	369	269
Volume Left	99	0	2
Volume Right	2	83	0
cSH	469	1700	1201
Volume to Capacity	0.22	0.22	0.00
Queue Length 95th (ft)	20	0	0
Control Delay (s)	14.8	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	14.8	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	558	0	0	492
Future Volume (vph)	0	0	558	0	0	492
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	620	0	0	547
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	620	0	0	547
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	558	0	0	492
Future Vol, veh/h	0	0	558	0	0	492
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	620	0	0	547

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1167	620	0	0	620	0
Stage 1	620	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	214	488	-	-	960	-
Stage 1	536	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	214	488	-	-	960	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	536	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	960	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	75	0	0	90	0	0
Future Volume (vph)	75	0	0	90	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	0	0	100	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	0	0	100	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 8.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	0	0	90	0	0
Future Vol, veh/h	75	0	0	90	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	0	0	100	0	0

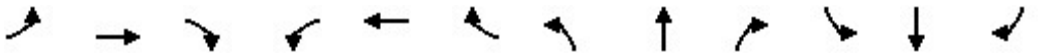
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	83	0	183	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1514	-	806	976
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1514	-	806	976
Mov Cap-2 Maneuver	-	-	-	-	806	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	924	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1514	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	315	323	5	9	378	113	51	23	35	121	5	328
Future Volume (vph)	315	323	5	9	378	113	51	23	35	121	5	328
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.998			0.966			0.957				0.850
Flt Protected	0.950				0.999			0.977			0.954	
Satd. Flow (prot)	1778	1849	0	0	3408	0	0	1714	0	0	1831	1615
Flt Permitted	0.385				0.947			0.711			0.624	
Satd. Flow (perm)	721	1849	0	0	3230	0	0	1248	0	0	1197	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			33			19				349
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			6	6								
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	335	344	5	10	402	120	54	24	37	129	5	349
Shared Lane Traffic (%)												
Lane Group Flow (vph)	335	349	0	0	532	0	0	115	0	0	134	349
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Reserved	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	20.0		20.0	20.0		17.0	17.0		17.0	17.0	9.5
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.5	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.5
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5	5.0			5.0			5.0			5.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	82.5	82.0			63.6			19.2			19.2	38.1
Actuated g/C Ratio	0.72	0.71			0.55			0.17			0.17	0.33
v/c Ratio	0.52	0.26			0.30			0.52			0.67	0.45
Control Delay	14.9	6.1			16.9			43.4			60.9	4.1
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	14.9	6.1			16.9			43.4			60.9	4.1
LOS	B	A			B			D			E	A
Approach Delay		10.4			16.9			43.4			19.9	
Approach LOS		B			B			D			B	
Queue Length 50th (ft)	55	59			86			65			94	0
Queue Length 95th (ft)	153	109			222			119			155	50
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	733	1319			1801			286			260	873
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.46	0.26			0.30			0.40			0.52	0.40

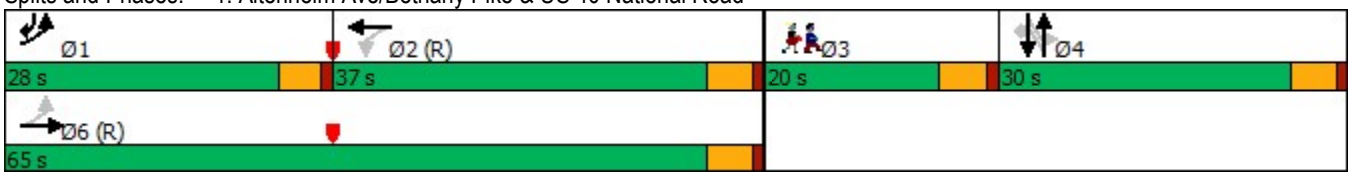
Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	244	1	0	239	7	0	0	0	7	0	150
Future Volume (vph)	124	244	1	0	239	7	0	0	0	7	0	150
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.871	
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Flt Permitted	0.950										0.998	
Satd. Flow (perm)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	135	265	1	0	260	8	0	0	0	8	0	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	266	0	0	268	0	0	0	0	0	171	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

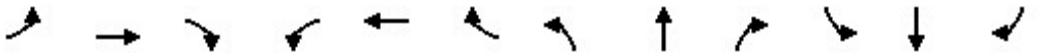
Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	124	244	1	0	239	7	0	0	0	7	0	150
Future Vol, veh/h	124	244	1	0	239	7	0	0	0	7	0	150
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	135	265	1	0	260	8	0	0	0	8	0	163

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	268	0	0	266	0	0	882	804	266	800	800	264
Stage 1	-	-	-	-	-	-	536	536	-	264	264	-
Stage 2	-	-	-	-	-	-	346	268	-	536	536	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1307	-	-	1310	-	-	244	291	766	319	335	785
Stage 1	-	-	-	-	-	-	501	496	-	757	704	-
Stage 2	-	-	-	-	-	-	649	671	-	548	543	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1307	-	-	1310	-	-	178	261	766	294	300	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	178	261	-	294	300	-
Stage 1	-	-	-	-	-	-	449	445	-	679	704	-
Stage 2	-	-	-	-	-	-	514	671	-	491	487	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	0	11.4
HCM LOS			A	B

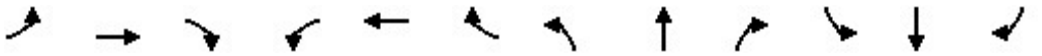
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1307	-	-	1310	-	-	731
HCM Lane V/C Ratio	-	0.103	-	-	-	-	-	0.233
HCM Control Delay (s)	0	8.1	-	-	0	-	-	11.4
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	0.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	244	1	0	239	7	0	0	0	7	0	150
Future Volume (Veh/h)	124	244	1	0	239	7	0	0	0	7	0	150
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			2%			-1%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	135	265	1	0	260	8	0	0	0	8	0	163
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	268			266			962	804	266	799	800	264
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	268			266			962	804	266	799	800	264
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			100	100	100	97	100	79
cM capacity (veh/h)	1307			1310			173	286	778	282	287	780

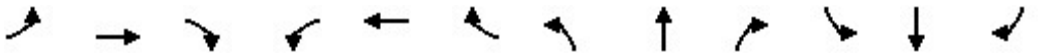
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	135	266	268	0	171
Volume Left	135	0	0	0	8
Volume Right	0	1	8	0	163
cSH	1307	1700	1310	1700	720
Volume to Capacity	0.10	0.16	0.00	0.00	0.24
Queue Length 95th (ft)	9	0	0	0	23
Control Delay (s)	8.1	0.0	0.0	0.0	11.5
Lane LOS	A			A	B
Approach Delay (s)	2.7		0.0	0.0	11.5
Approach LOS				A	B

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	49.8%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	795	27	13	748	15	4	0	3	16	2	50
Future Volume (vph)	50	795	27	13	748	15	4	0	3	16	2	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00							
Frt		0.995			0.997			0.942				0.850
Flt Protected	0.950			0.950				0.972			0.957	
Satd. Flow (prot)	1805	3550	0	1805	3563	0	0	2011	0	0	2040	1705
Flt Permitted	0.279			0.317				0.907			0.812	
Satd. Flow (perm)	530	3550	0	601	3563	0	0	1877	0	0	1731	1705
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			142				142
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		6	6		1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	54	864	29	14	813	16	4	0	3	17	2	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	893	0	14	829	0	0	7	0	0	19	54
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	71.8	71.8		78.8	78.8			17.3			17.3	17.3
Actuated g/C Ratio	0.62	0.62		0.69	0.69			0.15			0.15	0.15
v/c Ratio	0.14	0.40		0.03	0.34			0.02			0.07	0.14
Control Delay	8.5	10.1		1.1	1.0			0.0			42.3	0.8
Queue Delay	0.0	0.0		0.0	0.1			0.0			0.0	0.0
Total Delay	8.5	10.1		1.1	1.1			0.0			42.3	0.8
LOS	A	B		A	A			A			D	A
Approach Delay		10.0			1.1						11.6	
Approach LOS		B			A						B	
Queue Length 50th (ft)	13	143		0	3			0			12	0
Queue Length 95th (ft)	27	171		m1	14			0			35	0
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	497	2217		412	2445			413			270	386
Starvation Cap Reductn	0	0		0	595			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.11	0.40		0.03	0.45			0.02			0.07	0.14

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

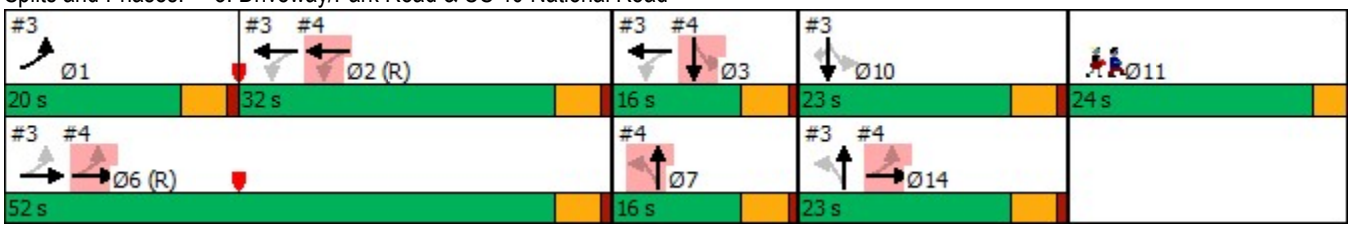
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

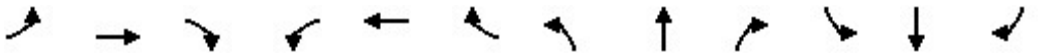
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 6.0	Intersection LOS: A
Intersection Capacity Utilization 43.7%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road

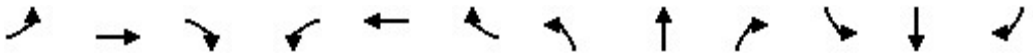


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	763	45	27	704	2	60	1	29	7	0	12
Future Volume (vph)	5	763	45	27	704	2	60	1	29	7	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992						0.956			0.916	
Flt Protected				0.950				0.968			0.981	
Satd. Flow (prot)	0	3546	0	1787	3574	0	0	1732	0	0	1690	0
Flt Permitted		0.952		0.065				0.788			0.897	
Satd. Flow (perm)	0	3375	0	122	3574	0	0	1410	0	0	1546	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8						17			142	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	5	829	49	29	765	2	65	1	32	8	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	883	0	29	767	0	0	98	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.1		62.9	62.9			10.9			10.9	
Actuated g/C Ratio		0.82		0.55	0.55			0.09			0.09	
v/c Ratio		0.32		0.44	0.39			0.66			0.08	
Control Delay		1.0		38.9	12.5			62.9			0.5	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.1		38.9	12.5			62.9			0.5	
LOS		A		D	B			E			A	
Approach Delay		1.1			13.5			62.9			0.5	
Approach LOS		A			B			E			A	
Queue Length 50th (ft)		1		14	184			59			0	
Queue Length 95th (ft)		0		#62	142			#135			0	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2725		66	1954			150			276	
Starvation Cap Reductn		751		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.45		0.44	0.39			0.65			0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 43.4%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

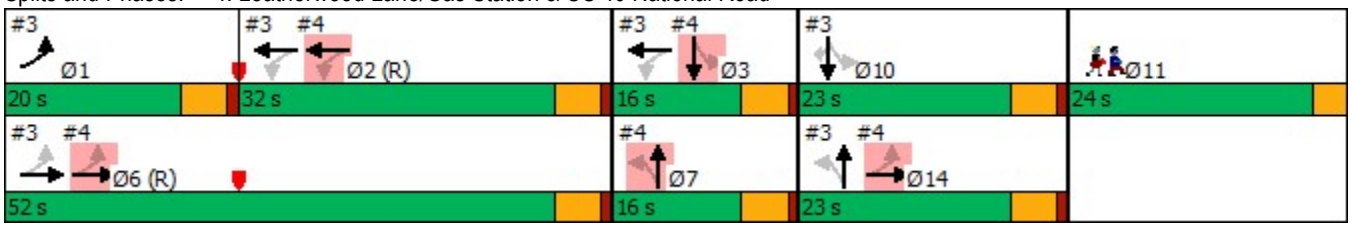
Intersection Summary

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



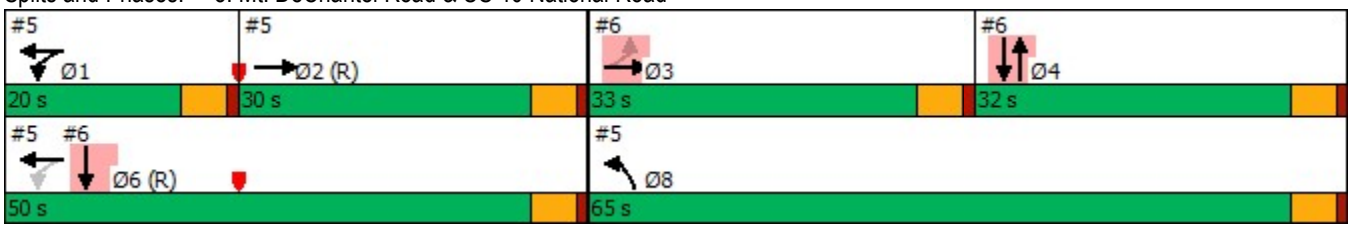
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	168	135	249	602	297	0			
Future Volume (vph)	168	135	249	602	297	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.933								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3195	0	1668	3455	3368	0			
Flt Permitted			0.413		0.950				
Satd. Flow (perm)	3195	0	725	3455	3368	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	144								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	3%	1%	1%	1%	0%			
Adj. Flow (vph)	179	144	265	640	316	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	323	0	265	640	316	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

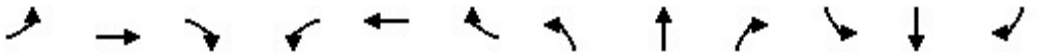
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	29.6		49.4	49.4	55.6				
Actuated g/C Ratio	0.26		0.43	0.43	0.48				
v/c Ratio	0.35		0.61	0.43	0.19				
Control Delay	21.3		43.1	37.5	6.0				
Queue Delay	0.0		0.0	0.0	1.1				
Total Delay	21.3		43.1	37.5	7.1				
LOS	C		D	D	A				
Approach Delay	21.3			39.1	7.1				
Approach LOS	C			D	A				
Queue Length 50th (ft)	58		193	248	21				
Queue Length 95th (ft)	101		291	321	m22				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	928		434	1483	1757				
Starvation Cap Reductn	0		0	0	1193				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.35		0.61	0.43	0.56				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 28.9		Intersection LOS: C	
Intersection Capacity Utilization 43.7%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Mt. DeChantel Road & US 40 National Road

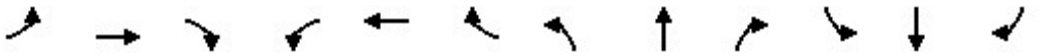


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	446	109	0	0	0	0	218	280	0	384	0
Future Volume (vph)	79	446	109	0	0	0	0	218	280	0	384	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor								0.99				
Frt		0.974						0.916				
Flt Protected		0.994										
Satd. Flow (prot)	0	3513	0	0	0	0	0	3358	0	0	2121	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3513	0	0	0	0	0	3358	0	0	2121	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20						265				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%
Adj. Flow (vph)	86	485	118	0	0	0	0	237	304	0	417	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	689	0	0	0	0	0	541	0	0	417	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

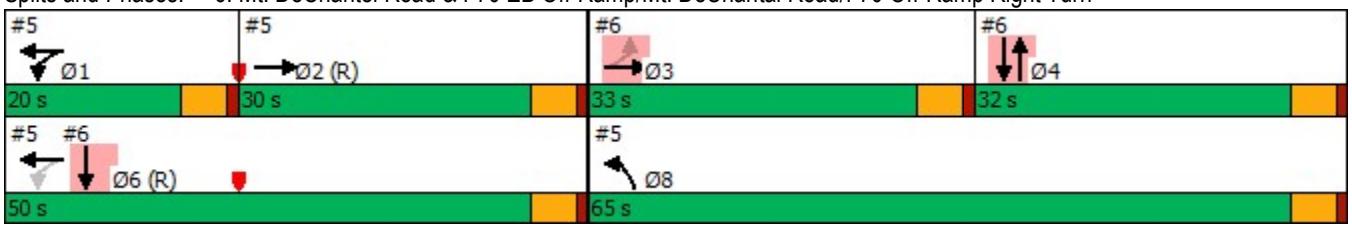
Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		26.8						23.8			78.2	
Actuated g/C Ratio		0.23						0.21			0.68	
v/c Ratio		0.83						0.60			0.29	
Control Delay		50.0						29.7			1.8	
Queue Delay		0.0						0.0			1.0	
Total Delay		50.0						29.7			2.8	
LOS		D						C			A	
Approach Delay		50.0						29.7			2.8	
Approach LOS		D						C			A	
Queue Length 50th (ft)		245						113			20	
Queue Length 95th (ft)		317						174			21	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		870						991			1443	
Starvation Cap Reductn		0						0			745	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.79						0.55			0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 31.4		Intersection LOS: C	
Intersection Capacity Utilization 46.6%		ICU Level of Service A	
Analysis Period (min) 15			

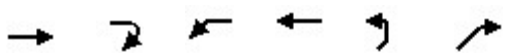
Splits and Phases: 6: Mt. DeChantel Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.



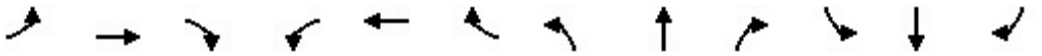
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	168	0	0	851	0	726
Future Volume (vph)	168	0	0	851	0	726
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Ped Bike Factor						
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3198	0	0	4442	0	2543
Flt Permitted						
Satd. Flow (perm)	3198	0	0	4442	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	0%	1%	0%	1%
Adj. Flow (vph)	181	0	0	915	0	781
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	0	0	915	0	781
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	168	0	0	851	0	726
Future Volume (Veh/h)	168	0	0	851	0	726
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	181	0	0	915	0	781
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked						
vC, conflicting volume			183		488	92
vC1, stage 1 conf vol					183	
vC2, stage 2 conf vol					305	
vCu, unblocked vol			183		488	92
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	18
cM capacity (veh/h)			1402		666	948

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	90	90	305	305	305	390	390
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	390	390
cSH	1700	1700	1700	1700	1700	948	948
Volume to Capacity	0.05	0.05	0.18	0.18	0.18	0.41	0.41
Queue Length 95th (ft)	0	0	0	0	0	51	51
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	11.4	11.4
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			11.4	
Approach LOS						B	

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	166	74	310	0	0	288	205
Future Volume (vph)	0	0	0	2	0	166	74	310	0	0	288	205
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.944	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1549	1546	1675	0	0	1581	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1549	1546	1675	0	0	1581	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)			1	1			1		3	3		1
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	5%	2%	0%	0%	1%	1%
Adj. Flow (vph)	0	0	0	2	0	175	78	326	0	0	303	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	175	78	326	0	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

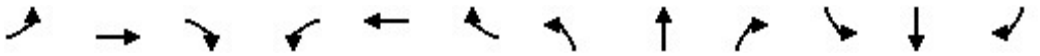
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	166	74	310	0	0	288	205
Future Vol, veh/h	0	0	0	2	0	166	74	310	0	0	288	205
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	5	2	0	0	1	1
Mvmt Flow	0	0	0	2	0	175	78	326	0	0	303	216

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	894	-	326	520	0	-	-	-	0	
Stage 1	482	-	-	-	-	-	-	-	-	
Stage 2	412	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.1	4.15	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.3	2.245	-	-	-	-	-	
Pot Cap-1 Maneuver	330	0	726	1031	-	0	0	-	-	
Stage 1	642	0	-	-	-	0	0	-	-	
Stage 2	688	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	305	0	726	1031	-	-	-	-	-	
Mov Cap-2 Maneuver	305	0	-	-	-	-	-	-	-	
Stage 1	593	0	-	-	-	-	-	-	-	
Stage 2	687	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	11.6	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1031	-	305	726	-	-
HCM Lane V/C Ratio	0.076	-	0.007	0.241	-	-
HCM Control Delay (s)	8.8	-	16.9	11.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0	0.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	2	0	166	74	310	0	0	288	205
Future Volume (Veh/h)	0	0	0	2	0	166	74	310	0	0	288	205
Sign Control		Stop			Stop			Free			Free	
Grade		1%			-1%			-1%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	0	2	0	175	78	326	0	0	303	216
Pedestrians		1			3			1				
Lane Width (ft)		0.0			15.0			12.0				
Walking Speed (ft/s)		3.5			3.5			3.5				
Percent Blockage		0			0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								477			270	
pX, platoon unblocked	0.92	0.92	0.91	0.92	0.92	0.99	0.91			0.99		
vC, conflicting volume	894	897	413	897	1005	329	520			329		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	816	819	311	819	936	317	428			317		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	76	92			100		
cM capacity (veh/h)	195	264	670	255	226	718	1020			1237		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	2	175	78	326	519
Volume Left	2	0	78	0	0
Volume Right	0	175	0	0	216
cSH	255	718	1020	1700	1700
Volume to Capacity	0.01	0.24	0.08	0.19	0.31
Queue Length 95th (ft)	1	24	6	0	0
Control Delay (s)	19.2	11.6	8.8	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	11.7		1.7		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A	
Analysis Period (min)	15			

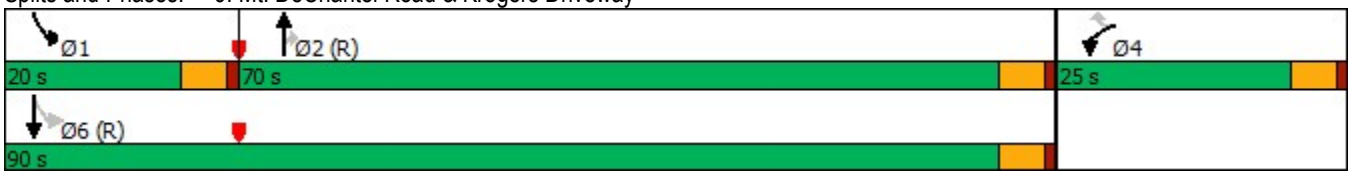
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	120	247	98	224	36
Future Volume (vph)	7	120	247	98	224	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1853	1697	1837	2017
Flt Permitted	0.950				0.559	
Satd. Flow (perm)	1787	1620	1853	1697	1081	2017
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		128		104		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	1%	1%	0%
Adj. Flow (vph)	7	128	263	104	238	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	128	263	104	238	38
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	3.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.2	9.2	82.3	82.3	95.8	95.8
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.05	0.52	0.20	0.08	0.25	0.02
Control Delay	47.7	16.1	6.3	1.4	1.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	16.1	6.3	1.4	1.7	1.2
LOS	D	B	A	A	A	A
Approach Delay	17.7		4.9			1.6
Approach LOS	B		A			A
Queue Length 50th (ft)	5	0	53	0	7	1
Queue Length 95th (ft)	19	57	107	18	m35	m7
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	387	1326	1244	998	1679
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.33	0.20	0.08	0.24	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 45 (39%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 42.1%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantel Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	120	247	98	224	36
Future Volume (veh/h)	7	120	247	98	224	36
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1864	1954	1954	1970
Adj Flow Rate, veh/h	7	128	263	104	238	38
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	1	1	0
Cap, veh/h	174	159	1342	1192	875	1606
Arrive On Green	0.10	0.10	0.72	0.72	0.05	0.82
Sat Flow, veh/h	1787	1628	1864	1656	1861	1970
Grp Volume(v), veh/h	7	128	263	104	238	38
Grp Sat Flow(s),veh/h/ln	1787	1628	1864	1656	1861	1970
Q Serve(g_s), s	0.4	8.9	5.3	2.2	3.6	0.4
Cycle Q Clear(g_c), s	0.4	8.9	5.3	2.2	3.6	0.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	174	159	1342	1192	875	1606
V/C Ratio(X)	0.04	0.81	0.20	0.09	0.27	0.02
Avail Cap(c_a), veh/h	311	283	1342	1192	1020	1606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	50.8	5.3	4.8	3.2	2.0
Incr Delay (d2), s/veh	0.2	18.1	0.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	2.1	0.7	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.2	68.9	5.6	5.0	3.4	2.0
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	135		367			276
Approach Delay, s/veh	67.8		5.4			3.2
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	87.8		16.2		98.8
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	5.6	7.3		10.9		2.4
Green Ext Time (p_c), s	0.5	4.6		0.5		0.4

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	248	69	540	368	0	0
Future Volume (vph)	248	69	540	368	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.967					
Flt Protected				0.971		
Satd. Flow (prot)	3086	0	0	3093	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3086	0	0	3093	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		4	4			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	1%	2%	0%	0%
Adj. Flow (vph)	261	73	568	387	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	334	0	0	955	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	248	69	540	368	0	0
Future Volume (Veh/h)	248	69	540	368	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	261	73	568	387	0	0
Pedestrians					4	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.87	
vC, conflicting volume			265		1631	171
vC1, stage 1 conf vol					302	
vC2, stage 2 conf vol					1330	
vCu, unblocked vol			265		1435	171
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			56		100	100
cM capacity (veh/h)			1303		138	849

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	174	160	697	258
Volume Left	0	0	568	0
Volume Right	0	73	0	0
cSH	1700	1700	1303	1700
Volume to Capacity	0.10	0.09	0.44	0.15
Queue Length 95th (ft)	0	0	57	0
Control Delay (s)	0.0	0.0	8.9	0.0
Lane LOS			A	
Approach Delay (s)	0.0		6.5	
Approach LOS				

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	61	1	194	61	2	177
Future Volume (vph)	61	1	194	61	2	177
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998		0.968			
Flt Protected	0.953					0.999
Satd. Flow (prot)	1593	0	1662	0	0	1562
Flt Permitted	0.953					0.999
Satd. Flow (perm)	1593	0	1662	0	0	1562
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	67	1	213	67	2	195
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	280	0	0	197
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	61	1	194	61	2	177
Future Vol, veh/h	61	1	194	61	2	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	67	1	213	67	2	195

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	446	247	0	0	280	0
Stage 1	247	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	533	780	-	-	1294	-
Stage 1	767	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	532	780	-	-	1294	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	12.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SWL	SWT
Capacity (veh/h)	-	-	535	1294	-
HCM Lane V/C Ratio	-	-	0.127	0.002	-
HCM Control Delay (s)	-	-	12.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	61	1	194	61	2	177
Future Volume (Veh/h)	61	1	194	61	2	177
Sign Control	Stop		Free			Free
Grade	3%		-2%			4%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	67	1	213	67	2	195
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	446	246			280	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	446	246			280	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	100			100	
cM capacity (veh/h)	573	797			1294	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	68	280	197
Volume Left	67	0	2
Volume Right	1	67	0
cSH	575	1700	1294
Volume to Capacity	0.12	0.16	0.00
Queue Length 95th (ft)	10	0	0
Control Delay (s)	12.1	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	12.1	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	368	0	0	389
Future Volume (vph)	0	0	368	0	0	389
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%		-1%			-2%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	1675	0	0	1683
Flt Permitted						
Satd. Flow (perm)	1667	0	1675	0	0	1683
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	409	0	0	432
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	409	0	0	432
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.15	1.15	1.14	1.14
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	368	0	0	389
Future Vol, veh/h	0	0	368	0	0	389
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	-2
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	409	0	0	432

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	841	409	0	0	409	0
Stage 1	409	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	335	642	-	-	1150	-
Stage 1	671	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	335	642	-	-	1150	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	655	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1150	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	0	0	62	0	0
Future Volume (vph)	63	0	0	62	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1667	0	0	1642	1667	0
Flt Permitted						
Satd. Flow (perm)	1667	0	0	1642	1667	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	0	0	69	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	0	69	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 7.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	0	0	62	0	0
Future Vol, veh/h	63	0	0	62	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	0	0	69	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	70	0	139	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1531	-	854	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1531	-	854	993
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	954	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1531	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

STAHL SHEAFFER ENGINEERING

Appendix I. Year of Full Build-Out 2030 With Development (Build) Synchro Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	446	224	3	11	320	218	195	42	50	193	2	541
Future Volume (vph)	446	224	3	11	320	218	195	42	50	193	2	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.99
Frt		0.998			0.940			0.976				0.850
Flt Protected	0.950				0.999			0.967			0.953	
Satd. Flow (prot)	1693	1685	0	0	3273	0	0	1713	0	0	1793	1584
Flt Permitted	0.196				0.946			0.466			0.642	
Satd. Flow (perm)	349	1685	0	0	3099	0	0	824	0	0	1208	1562
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			159			10				513
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			2	2			2					2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	11%	0%	0%	3%	2%	1%	0%	2%	2%	0%	3%
Adj. Flow (vph)	525	264	4	13	376	256	229	49	59	227	2	636
Shared Lane Traffic (%)												
Lane Group Flow (vph)	525	268	0	0	645	0	0	337	0	0	229	636
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	20.0	50.0		30.0	30.0		25.0	25.0		25.0	25.0	20.0
Total Split (%)	21.1%	52.6%		31.6%	31.6%		26.3%	26.3%		26.3%	26.3%	21.1%
Maximum Green (s)	15.0	45.0		25.0	25.0		20.0	20.0		20.0	20.0	15.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	2.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	46.0	46.0			26.0			20.0			20.0	35.0
Actuated g/C Ratio	0.48	0.48			0.27			0.21			0.21	0.37
v/c Ratio	1.38	0.33			0.67			1.86			0.90	0.71
Control Delay	203.5	14.3			26.7			433.4			74.6	9.2
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	203.5	14.3			26.7			433.4			74.6	9.2
LOS	F	B			C			F			E	A
Approach Delay		139.5			26.7			433.4			26.5	
Approach LOS		F			C			F			C	
Queue Length 50th (ft)	~358	145			136			~311			135	45
Queue Length 95th (ft)	#504	m176			181			#450			#250	119
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	381	816			963			181			254	902
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	1.38	0.33			0.67			1.86			0.90	0.71

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 46 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.86	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	21%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	Ped
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

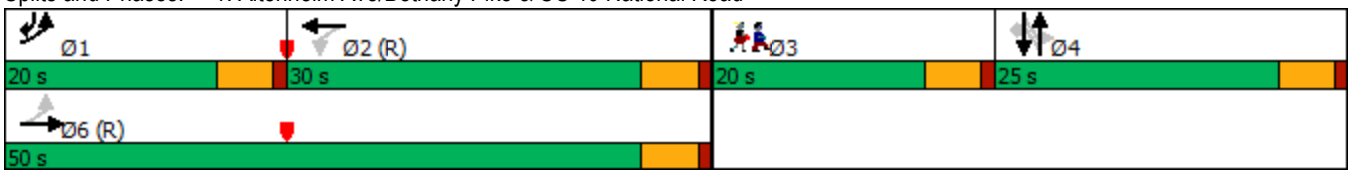
Intersection Signal Delay: 112.5	Intersection LOS: F
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

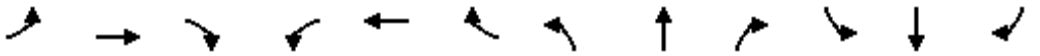
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	246	2	0	319	3	0	0	0	7	0	269
Future Volume (vph)	141	246	2	0	319	3	0	0	0	7	0	269
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999						0.869	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	0%	0%	3%	0%	0%	0%	0%	17%	0%	2%
Adj. Flow (vph)	157	273	2	0	354	3	0	0	0	8	0	299
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	275	0	0	357	0	0	0	0	0	307	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

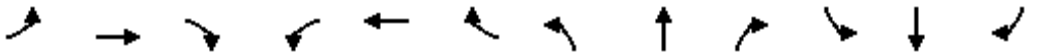
Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	141	246	2	0	319	3	0	0	0	7	0	269
Future Vol, veh/h	141	246	2	0	319	3	0	0	0	7	0	269
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	2	0	0	3	0	0	0	0	17	0	2
Mvmt Flow	157	273	2	0	354	3	0	0	0	8	0	299

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	358	0	0	275	0	0	1093	946	274	945	946	357
Stage 1	-	-	-	-	-	-	588	588	-	357	357	-
Stage 2	-	-	-	-	-	-	505	358	-	588	589	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.5	6.9	6.4	7.07	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.3	3.653	4	3.318
Pot Cap-1 Maneuver	1173	-	-	1300	-	-	171	237	758	240	278	694
Stage 1	-	-	-	-	-	-	467	468	-	643	645	-
Stage 2	-	-	-	-	-	-	523	607	-	486	515	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1172	-	-	1300	-	-	87	205	758	215	240	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	205	-	215	240	-
Stage 1	-	-	-	-	-	-	404	405	-	556	644	-
Stage 2	-	-	-	-	-	-	297	606	-	421	446	-

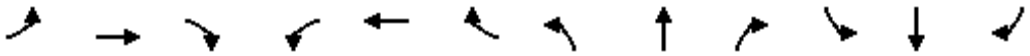
Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	0	15.2
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1172	-	-	1300	-	-	656
HCM Lane V/C Ratio	-	0.134	-	-	-	-	-	0.467
HCM Control Delay (s)	0	8.5	-	-	0	-	-	15.2
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	2.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	955	6	0	982	48	3	0	2	36	0	198
Future Volume (vph)	184	955	6	0	982	48	3	0	2	36	0	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.999			0.993			0.955				0.850
Flt Protected	0.950							0.968			0.950	
Satd. Flow (prot)	1787	3428	0	1900	3482	0	0	1664	0	0	1911	1689
Flt Permitted	0.119							0.844			0.754	
Satd. Flow (perm)	224	3428	0	1900	3482	0	0	1451	0	0	1516	1689
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			6			172				233
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)			5	5								
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	1%	5%	33%	0%	3%	2%	33%	0%	0%	6%	0%	1%
Adj. Flow (vph)	216	1124	7	0	1155	56	4	0	2	42	0	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	1131	0	0	1211	0	0	6	0	0	42	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	16.0	42.0					15.0	15.0		15.0	15.0	15.0
Total Split (%)	16.8%	44.2%					15.8%	15.8%		15.8%	15.8%	15.8%
Maximum Green (s)	11.0	37.0					10.0	10.0		10.0	10.0	10.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	44.0	44.0			42.7			10.0			10.0	10.0
Actuated g/C Ratio	0.46	0.46			0.45			0.11			0.11	0.11
v/c Ratio	0.79	0.71			0.77			0.02			0.26	0.60
Control Delay	42.6	21.0			4.2			0.2			43.8	12.8
Queue Delay	0.0	0.0			7.3			0.0			0.0	0.0
Total Delay	42.6	21.0			11.5			0.2			43.8	12.8
LOS	D	C			B			A			D	B
Approach Delay		24.4			11.5			0.2			17.5	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)	78	242			46			0			24	0
Queue Length 95th (ft)	#162	273			m10			0			54	56
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	284	1588			1567			306			159	386
Starvation Cap Reductn	0	0			318			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.76	0.71			0.97			0.02			0.26	0.60

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	26.0	14.0	14.0	24.0
Total Split (%)	27%	15%	15%	25%
Maximum Green (s)	21.0	9.0	9.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	Ped
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				1
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

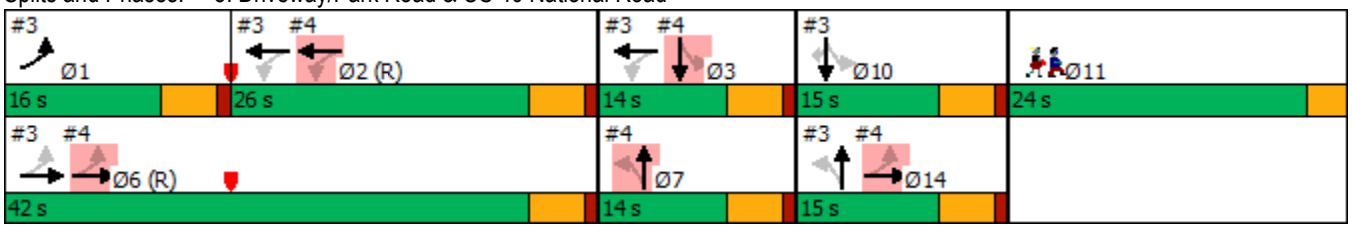
Intersection Summary

Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 18.2	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

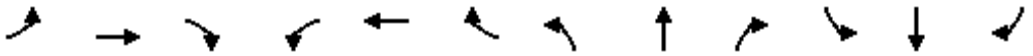
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	883	99	51	986	11	8	0	17	4	1	31
Future Volume (vph)	11	883	99	51	986	11	8	0	17	4	1	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.998			0.907			0.884	
Flt Protected		0.999		0.950				0.985			0.994	
Satd. Flow (prot)	0	3394	0	1770	3498	0	0	1656	0	0	1637	0
Flt Permitted		0.825		0.234				0.898			0.963	
Satd. Flow (perm)	0	2803	0	436	3498	0	0	1510	0	0	1586	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			1			172			36	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	5%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	13	1039	116	60	1160	13	9	0	20	5	1	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1168	0	60	1173	0	0	29	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				26.0	26.0		14.0	14.0		14.0	14.0	
Total Split (%)				27.4%	27.4%		14.7%	14.7%		14.7%	14.7%	
Maximum Green (s)				21.0	21.0		9.0	9.0		9.0	9.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		54.0		28.7	28.7			9.0			9.0	
Actuated g/C Ratio		0.57		0.30	0.30			0.09			0.09	
v/c Ratio		0.73		0.46	1.11			0.10			0.23	
Control Delay		6.0		40.5	92.6			0.6			19.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		6.0		40.5	92.6			0.6			19.4	
LOS		A		D	F			A			B	
Approach Delay		6.0			90.0			0.6			19.4	
Approach LOS		A			F			A			B	
Queue Length 50th (ft)		45		32	~421			0			3	
Queue Length 95th (ft)		27		m44	m#423			0			32	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		1600		131	1056			298			182	
Starvation Cap Reductn		5		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.73		0.46	1.11			0.10			0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.11			
Intersection Signal Delay: 48.1		Intersection LOS: D	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	16.0	42.0	15.0	24.0	15.0
Total Split (%)	17%	44%	16%	25%	16%
Maximum Green (s)	11.0	37.0	10.0	21.0	10.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	Ped	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				1	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

Intersection Summary

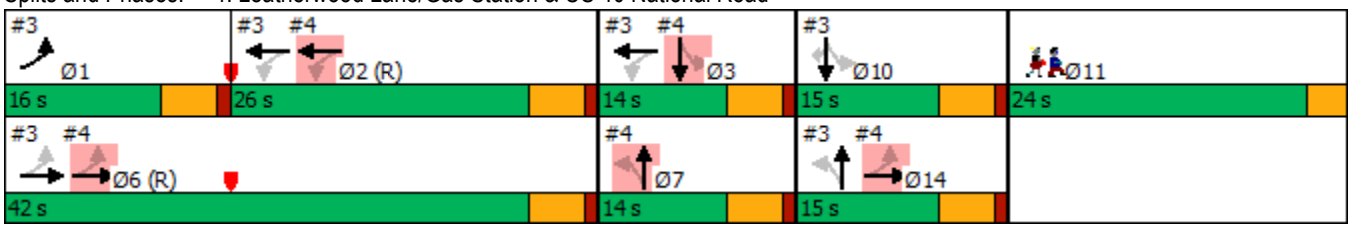
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



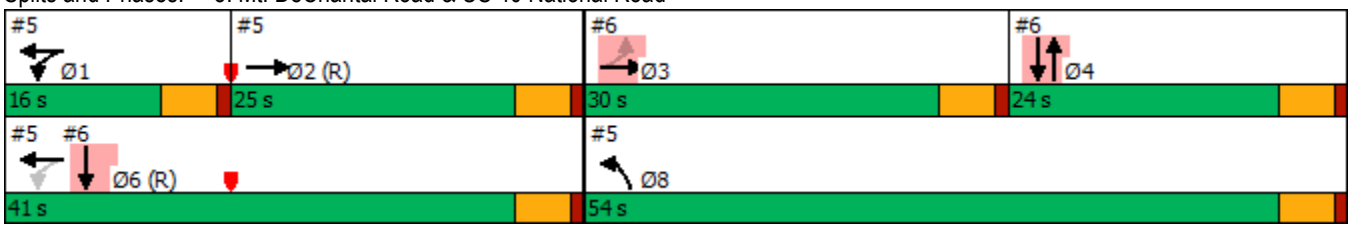
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	184	130	309	894	245	0			
Future Volume (vph)	184	130	309	894	245	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.938								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3044	0	1652	3388	3271	0			
Flt Permitted			0.358		0.950				
Satd. Flow (perm)	3044	0	622	3388	3271	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	144								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Heavy Vehicles (%)	10%	4%	2%	3%	4%	0%			
Adj. Flow (vph)	204	144	343	993	272	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	348	0	343	993	272	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

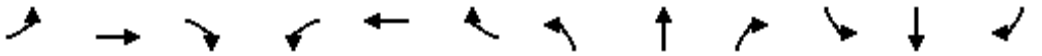
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	25.0		16.0		54.0		30.0	24.0	41.0
Total Split (%)	26.3%		16.8%		56.8%		32%	25%	43%
Maximum Green (s)	20.0		11.0		49.0		25.0	19.0	36.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	20.0		36.0	36.0	49.0				
Actuated g/C Ratio	0.21		0.38	0.38	0.52				
v/c Ratio	0.46		0.97	0.77	0.16				
Control Delay	21.1		61.6	31.6	4.9				
Queue Delay	0.0		0.0	0.0	1.7				
Total Delay	21.1		61.6	31.6	6.6				
LOS	C		E	C	A				
Approach Delay	21.1			39.3	6.6				
Approach LOS	C			D	A				
Queue Length 50th (ft)	55		216	334	16				
Queue Length 95th (ft)	97		m#356	405	m15				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	754		354	1283	1687				
Starvation Cap Reductn	0		0	0	1233				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.46		0.97	0.77	0.60				

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
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: 5: Mt. DeChantal Road & US 40 National Road

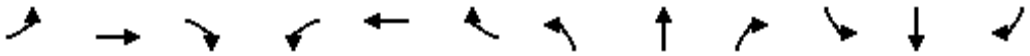


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	682	86	0	0	0	0	188	303	0	439	0
Future Volume (vph)	57	682	86	0	0	0	0	188	303	0	439	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984						0.907				
Flt Protected		0.997										
Satd. Flow (prot)	0	3441	0	0	0	0	0	3222	0	0	2080	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3441	0	0	0	0	0	3222	0	0	2080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13						348				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)							2					2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	4%	0%	0%	0%	0%	5%	5%	5%	0%	3%	0%
Adj. Flow (vph)	66	784	99	0	0	0	0	216	348	0	505	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	949	0	0	0	0	0	564	0	0	505	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	30.0	30.0						24.0				
Total Split (%)	31.6%	31.6%						25.3%				
Maximum Green (s)	25.0	25.0						19.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		25.0						19.0			60.0	
Actuated g/C Ratio		0.26						0.20			0.63	
v/c Ratio		1.04						0.61			0.38	
Control Delay		74.8						23.4			2.8	
Queue Delay		0.0						0.0			3.0	
Total Delay		74.8						23.4			5.9	
LOS		E						C			A	
Approach Delay		74.8						23.4			5.9	
Approach LOS		E						C			A	
Queue Length 50th (ft)		~324						92			27	
Queue Length 95th (ft)		#424						130			m34	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		915						922			1313	
Starvation Cap Reductn		0						0			681	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.04						0.61			0.80	

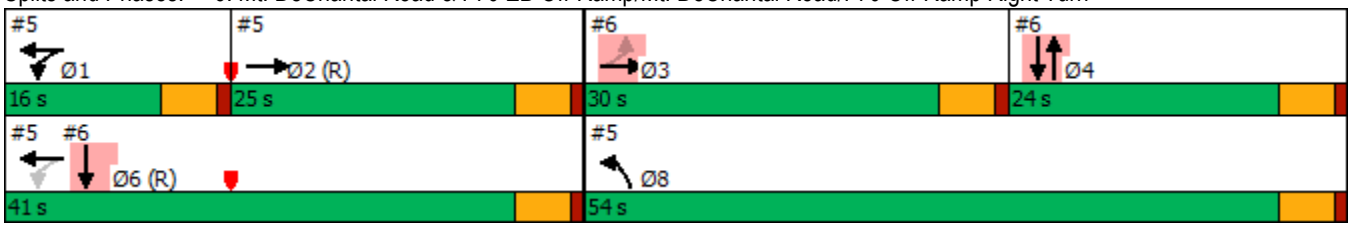
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 70 (74%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 43.2		Intersection LOS: D	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	16.0	25.0	41.0	54.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	11.0	20.0	36.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

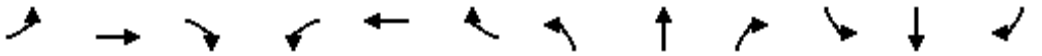
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	184	0	0	1203	0	986
Future Volume (vph)	184	0	0	1203	0	986
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	2963	0	0	4398	0	2470
Flt Permitted						
Satd. Flow (perm)	2963	0	0	4398	0	2470
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	9%	0%	0%	2%	0%	4%
Adj. Flow (vph)	216	0	0	1415	0	1160
Shared Lane Traffic (%)						
Lane Group Flow (vph)	216	0	0	1415	0	1160
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	184	0	0	1203	0	986
Future Volume (Veh/h)	184	0	0	1203	0	986
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	216	0	0	1415	0	1160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.85	
vC, conflicting volume			216		688	108
vC1, stage 1 conf vol					216	
vC2, stage 2 conf vol					472	
vCu, unblocked vol			216		15	108
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1366		851	919

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	108	108	472	472	472	580	580
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	580	580
cSH	1700	1700	1700	1700	1700	919	919
Volume to Capacity	0.06	0.06	0.28	0.28	0.28	0.63	0.63
Queue Length 95th (ft)	0	0	0	0	0	116	116
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	15.4	15.4
Lane LOS						C	C
Approach Delay (s)	0.0		0.0			15.4	
Approach LOS						C	

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	4	0	83	52	397	0	0	259	267
Future Volume (vph)	0	0	0	4	0	83	52	397	0	0	259	267
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.931	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	5%	0%	0%	1%	5%
Adj. Flow (vph)	0	0	0	4	0	92	58	441	0	0	288	297
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	4	0	92	58	441	0	0	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.4

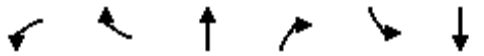
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	83	52	397	0	0	259	267
Future Vol, veh/h	0	0	0	4	0	83	52	397	0	0	259	267
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	2	3	5	0	0	1	5
Mvmt Flow	0	0	0	4	0	92	58	441	0	0	288	297

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	994	-	441	585	0	-	-	-	0	
Stage 1	557	-	-	-	-	-	-	-	-	
Stage 2	437	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.13	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.227	-	-	-	-	-	
Pot Cap-1 Maneuver	290	0	624	985	-	0	0	-	-	
Stage 1	596	0	-	-	-	0	0	-	-	
Stage 2	672	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	273	0	624	985	-	-	-	-	-	
Mov Cap-2 Maneuver	273	0	-	-	-	-	-	-	-	
Stage 1	561	0	-	-	-	-	-	-	-	
Stage 2	672	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	12.1	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	985	-	273	624	-	-
HCM Lane V/C Ratio	0.059	-	0.016	0.148	-	-
HCM Control Delay (s)	8.9	-	18.4	11.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.5	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	72	368	70	139	106
Future Volume (vph)	6	72	368	70	139	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1652	1783	1714	1856	1997
Flt Permitted	0.950				0.458	
Satd. Flow (perm)	1787	1652	1783	1676	894	1997
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		81		79		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Confl. Peds. (#/hr)				2	2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	6%	0%	0%	1%
Adj. Flow (vph)	7	81	413	79	156	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	81	413	79	156	119
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex



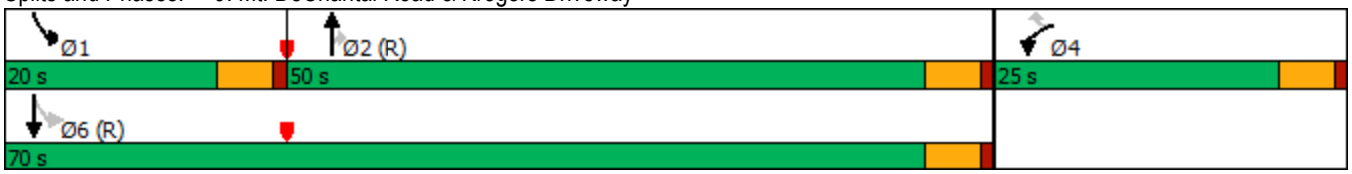
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	50.0	50.0	20.0	70.0
Total Split (%)	26.3%	26.3%	52.6%	52.6%	21.1%	73.7%
Maximum Green (s)	20.0	20.0	45.0	45.0	15.0	65.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.7	8.7	67.6	67.6	78.8	79.8
Actuated g/C Ratio	0.09	0.09	0.71	0.71	0.83	0.84
v/c Ratio	0.04	0.36	0.33	0.07	0.19	0.07
Control Delay	38.7	14.0	7.0	1.6	1.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	14.0	7.0	1.6	1.8	1.5
LOS	D	B	A	A	A	A
Approach Delay	16.0		6.1			1.7
Approach LOS	B		A			A
Queue Length 50th (ft)	4	0	86	0	9	7
Queue Length 95th (ft)	16	41	157	15	m18	m14
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	376	411	1267	1214	893	1678
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.33	0.07	0.17	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 60 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 5.7		Intersection LOS: A	
Intersection Capacity Utilization 43.7%		ICU Level of Service A	

Analysis Period (min) 15

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	72	368	70	139	106
Future Volume (veh/h)	6	72	368	70	139	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1952	1805	1970	1970	1954
Adj Flow Rate, veh/h	7	81	413	79	156	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	6	0	0	1
Cap, veh/h	118	109	1308	1208	785	1620
Arrive On Green	0.07	0.07	0.72	0.72	0.09	1.00
Sat Flow, veh/h	1787	1654	1805	1667	1876	1954
Grp Volume(v), veh/h	7	81	413	79	156	119
Grp Sat Flow(s),veh/h/ln	1787	1654	1805	1667	1876	1954
Q Serve(g_s), s	0.3	4.6	7.8	1.3	1.8	0.0
Cycle Q Clear(g_c), s	0.3	4.6	7.8	1.3	1.8	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	118	109	1308	1208	785	1620
V/C Ratio(X)	0.06	0.74	0.32	0.07	0.20	0.07
Avail Cap(c_a), veh/h	376	348	1308	1208	984	1620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	43.6	4.7	3.8	2.6	0.0
Incr Delay (d2), s/veh	0.4	19.0	0.6	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.7	0.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.1	62.6	5.3	3.9	2.7	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	88		492			275
Approach Delay, s/veh	61.0		5.1			1.6
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	73.8		11.3		83.7
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	45.0		20.0		65.0
Max Q Clear Time (g_c+I1), s	3.8	9.8		6.6		2.0
Green Ext Time (p_c), s	0.2	6.6		0.4		1.5

Intersection Summary			
HCM 6th Ctrl Delay		9.7	
HCM 6th LOS		A	

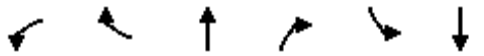
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	309	42	760	369	0	0
Future Volume (vph)	309	42	760	369	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.982					
Flt Protected				0.967		
Satd. Flow (prot)	2988	0	0	3023	0	0
Flt Permitted				0.967		
Satd. Flow (perm)	2988	0	0	3023	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	7%	0%	3%	4%	0%	0%
Adj. Flow (vph)	355	48	874	424	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	1298	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	309	42	760	369	0	0
Future Volume (Veh/h)	309	42	760	369	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	355	48	874	424	0	0
Pedestrians					2	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.74	
vC, conflicting volume			357		2341	204
vC1, stage 1 conf vol					381	
vC2, stage 2 conf vol					1960	
vCu, unblocked vol			357		2114	204
tC, single (s)			4.2		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			27		100	100
cM capacity (veh/h)			1191		30	809

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	237	166	1015	283
Volume Left	0	0	874	0
Volume Right	0	48	0	0
cSH	1700	1700	1191	1700
Volume to Capacity	0.14	0.10	0.73	0.17
Queue Length 95th (ft)	0	0	176	0
Control Delay (s)	0.0	0.0	15.4	0.0
Lane LOS			C	
Approach Delay (s)	0.0		12.0	
Approach LOS				

Intersection Summary			
Average Delay	9.2		
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	58	4	185	60	8	252
Future Volume (vph)	58	4	185	60	8	252
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992		0.967			
Flt Protected	0.955					0.998
Satd. Flow (prot)	1586	0	1608	0	0	1562
Flt Permitted	0.955					0.998
Satd. Flow (perm)	1586	0	1608	0	0	1562
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	3%	4%	0%	3%
Adj. Flow (vph)	63	4	201	65	9	274
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	0	266	0	0	283
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	58	4	185	60	8	252
Future Vol, veh/h	58	4	185	60	8	252
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	4	0	3
Mvmt Flow	63	4	201	65	9	274

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	526	234	0	0	266	0
Stage 1	234	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	472	794	-	-	1310	-
Stage 1	779	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	468	794	-	-	1310	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	481	1310	-
HCM Lane V/C Ratio	-	-	0.14	0.007	-
HCM Control Delay (s)	-	-	13.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	96	5	384	230	13	575
Future Volume (vph)	96	5	384	230	13	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		475	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.359	
Satd. Flow (perm)	1770	1583	1872	1591	675	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		6		256		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	107	6	427	256	14	639
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	6	427	256	14	639
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	12.0	22.5	22.5	12.0	22.5
Total Split (s)	23.0	12.0	55.0	23.0	12.0	67.0
Total Split (%)	25.6%	13.3%	61.1%	25.6%	13.3%	74.4%
Maximum Green (s)	18.0	7.0	50.0	18.0	7.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	8.2	19.4	19.9	37.9	21.5	21.5
Actuated g/C Ratio	0.20	0.48	0.50	0.94	0.53	0.53
v/c Ratio	0.30	0.01	0.46	0.17	0.03	0.64
Control Delay	17.9	6.0	9.8	0.6	4.4	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	6.0	9.8	0.6	4.4	9.9
LOS	B	A	A	A	A	A
Approach Delay	17.3		6.4			9.8
Approach LOS	B		A			A
Queue Length 50th (ft)	18	0	45	0	1	79
Queue Length 95th (ft)	68	6	175	13	6	176
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				475	300	
Base Capacity (vph)	827	820	1827	1546	563	1881
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.01	0.23	0.17	0.02	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 40.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Bethany Pike & Site Dwy

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	96	5	384	230	13	575
Future Volume (veh/h)	96	5	384	230	13	575
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	107	6	427	256	14	639
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	181	190	723	777	432	1099
Arrive On Green	0.10	0.10	0.38	0.38	0.02	0.56
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	107	6	427	256	14	639
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	1.7	0.1	5.4	2.9	0.1	6.4
Cycle Q Clear(g_c), s	1.7	0.1	5.4	2.9	0.1	6.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	181	190	723	777	432	1099
V/C Ratio(X)	0.59	0.03	0.59	0.33	0.03	0.58
Avail Cap(c_a), veh/h	1072	983	3191	2869	832	4039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	11.6	7.4	4.8	5.3	4.2
Incr Delay (d2), s/veh	3.0	0.1	0.8	0.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.4	0.7	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	11.7	8.2	5.0	5.3	4.7
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	113		683			653
Approach Delay, s/veh	15.7		7.0			4.7
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.5	16.3			21.9	8.0
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	50.0			62.0	18.0
Max Q Clear Time (g_c+I1), s	2.1	7.4			8.4	3.7
Green Ext Time (p_c), s	0.0	4.0			5.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	5	13	60	2	6
Future Volume (vph)	63	5	13	60	2	6
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989				0.895	
Flt Protected				0.991	0.989	
Satd. Flow (prot)	1648	0	0	1627	1475	0
Flt Permitted				0.991	0.989	
Satd. Flow (perm)	1648	0	0	1627	1475	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	6	14	67	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	0	81	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	5	13	60	2	6
Future Vol, veh/h	63	5	13	60	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	6	14	67	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	168	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	822	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	814	989
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	920	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	939	-	-	1523	-
HCM Lane V/C Ratio	0.009	-	-	0.009	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	552	382	9	5	467	340	185	48	59	336	5	627
Future Volume (vph)	552	382	9	5	467	340	185	48	59	336	5	627
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.98
Frt		0.996			0.937			0.973				0.850
Flt Protected	0.950							0.969			0.953	
Satd. Flow (prot)	1760	1810	0	0	3297	0	0	1718	0	0	1811	1553
Flt Permitted	0.165				0.953			0.171			0.602	
Satd. Flow (perm)	306	1810	0	0	3142	0	0	302	0	0	1144	1525
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			157			10				416
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			1	1			9					9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	2%	1%	1%	0%	0%	1%	0%	5%
Adj. Flow (vph)	594	411	10	5	502	366	199	52	63	361	5	674
Shared Lane Traffic (%)												
Lane Group Flow (vph)	594	421	0	0	873	0	0	314	0	0	366	674
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.0	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	76.2	76.2			48.2			25.0			25.0	48.0
Actuated g/C Ratio	0.66	0.66			0.42			0.22			0.22	0.42
v/c Ratio	1.20	0.35			0.62			4.30			1.48	0.76
Control Delay	144.2	9.5			24.7			1529.9			268.4	15.7
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	144.2	9.5			24.7			1529.9			268.4	15.7
LOS	F	A			C			F			F	B
Approach Delay		88.3			24.7			1529.9			104.6	
Approach LOS		F			C			F			F	
Queue Length 50th (ft)	~410	105			201			~384			~373	147
Queue Length 95th (ft)	#719	177			#367			#564			#561	300
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	493	1199			1407			73			248	884
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	1.20	0.35			0.62			4.30			1.48	0.76

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.30	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

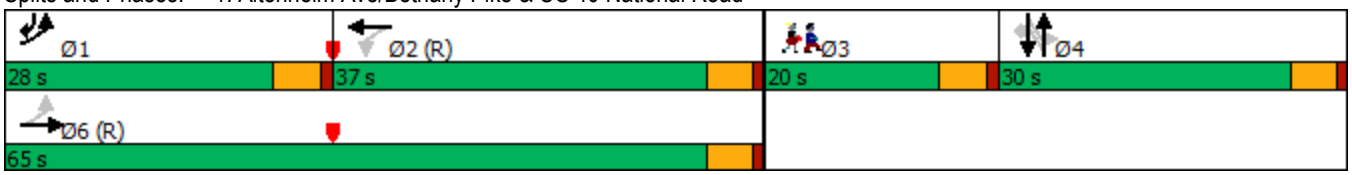
Intersection Summary

Intersection Signal Delay: 216.0	Intersection LOS: F
Intersection Capacity Utilization 92.6%	ICU Level of Service F
Analysis Period (min) 15	

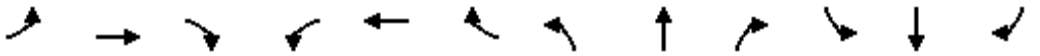
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	343	0	0	323	10	1	0	0	6	0	185
Future Volume (vph)	236	343	0	0	323	10	1	0	0	6	0	185
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996						0.869	
Flt Protected	0.950							0.950			0.998	
Satd. Flow (prot)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Flt Permitted	0.950							0.950			0.998	
Satd. Flow (perm)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	268	390	0	0	367	11	1	0	0	7	0	210
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	390	0	0	378	0	0	1	0	0	217	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

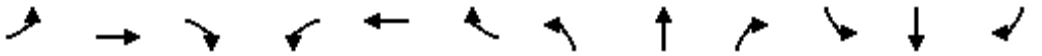
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	236	343	0	0	323	10	1	0	0	6	0	185
Future Vol, veh/h	236	343	0	0	323	10	1	0	0	6	0	185
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	268	390	0	0	367	11	1	0	0	7	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	378	0	0	390	0	0	1404	1304	390	1299	1299	373
Stage 1	-	-	-	-	-	-	926	926	-	373	373	-
Stage 2	-	-	-	-	-	-	478	378	-	926	926	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1192	-	-	1180	-	-	101	140	649	150	175	680
Stage 1	-	-	-	-	-	-	293	316	-	665	635	-
Stage 2	-	-	-	-	-	-	543	593	-	342	369	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1180	-	-	58	109	649	124	136	680
Mov Cap-2 Maneuver	-	-	-	-	-	-	58	109	-	124	136	-
Stage 1	-	-	-	-	-	-	227	245	-	515	635	-
Stage 2	-	-	-	-	-	-	375	593	-	265	286	-

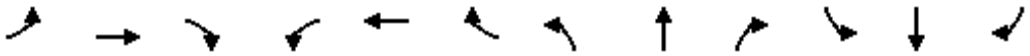
Approach	EB	WB	NB	SB
HCM Control Delay, s	3.6	0	68.3	14.5
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	58	1192	-	-	1180	-	-	596
HCM Lane V/C Ratio	0.02	0.225	-	-	-	-	-	0.364
HCM Control Delay (s)	68.3	8.9	-	-	0	-	-	14.5
HCM Lane LOS	F	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.9	-	-	0	-	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	1093	12	5	1280	48	5	0	6	62	0	175
Future Volume (vph)	136	1093	12	5	1280	48	5	0	6	62	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00				0.99
Frt		0.998			0.995			0.921				0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1752	3531	0	1805	3519	0	0	1982	0	0	2025	1705
Flt Permitted	0.089			0.215				0.914			0.750	
Satd. Flow (perm)	164	3531	0	407	3519	0	0	1848	0	0	1599	1682
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			142				192
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		16	16		1	1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	149	1201	13	5	1407	53	5	0	7	68	0	192
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	1214	0	5	1460	0	0	12	0	0	68	192
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	71.0	71.0		72.8	72.8			18.0			18.0	18.0
Actuated g/C Ratio	0.62	0.62		0.63	0.63			0.16			0.16	0.16
v/c Ratio	0.65	0.56		0.02	0.66			0.03			0.27	0.45
Control Delay	30.7	12.1		0.4	1.7			0.1			46.1	9.8
Queue Delay	0.0	0.0		0.0	0.4			0.0			0.0	0.0
Total Delay	30.7	12.1		0.4	2.1			0.1			46.1	9.8
LOS	C	B		A	A			A			D	A
Approach Delay		14.1			2.1			0.1			19.3	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	52	207		0	10			0			45	0
Queue Length 95th (ft)	108	264		m0	10			0			89	64
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	308	2180		257	2229			409			250	425
Starvation Cap Reductn	0	0		0	292			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.48	0.56		0.02	0.75			0.03			0.27	0.45

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	

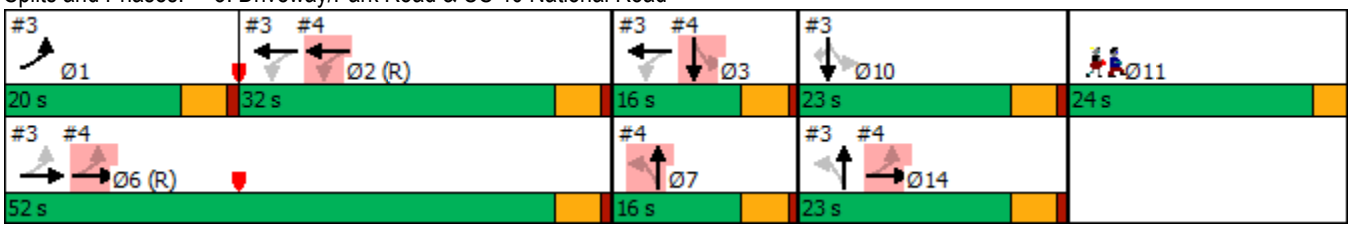
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

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

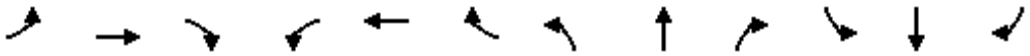
Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1095	63	39	1254	13	45	0	35	7	1	30
Future Volume (vph)	3	1095	63	39	1254	13	45	0	35	7	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.998			0.941			0.894	
Flt Protected				0.950				0.973			0.991	
Satd. Flow (prot)	0	3511	0	1770	3532	0	0	1697	0	0	1650	0
Flt Permitted		0.953		0.070				0.845			0.949	
Satd. Flow (perm)	0	3346	0	130	3532	0	0	1474	0	0	1580	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			1			142			33	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	1203	69	43	1378	14	49	0	38	8	1	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1275	0	43	1392	0	0	87	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6 14			2			7			3	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	1	6	10	11	14



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.0		56.8	56.8			11.0			11.0	
Actuated g/C Ratio		0.82		0.49	0.49			0.10			0.10	
v/c Ratio		0.47		0.67	0.80			0.32			0.23	
Control Delay		1.8		36.5	25.7			4.5			23.8	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.9		36.5	25.7			4.5			23.8	
LOS		A		D	C			A			C	
Approach Delay		1.9			26.0			4.5			23.8	
Approach LOS		A			C			A			C	
Queue Length 50th (ft)		26		24	496			0			6	
Queue Length 95th (ft)		41		m32	m402			10			42	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2736		64	1745			269			180	
Starvation Cap Reductn		362		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.54		0.67	0.80			0.32			0.23	

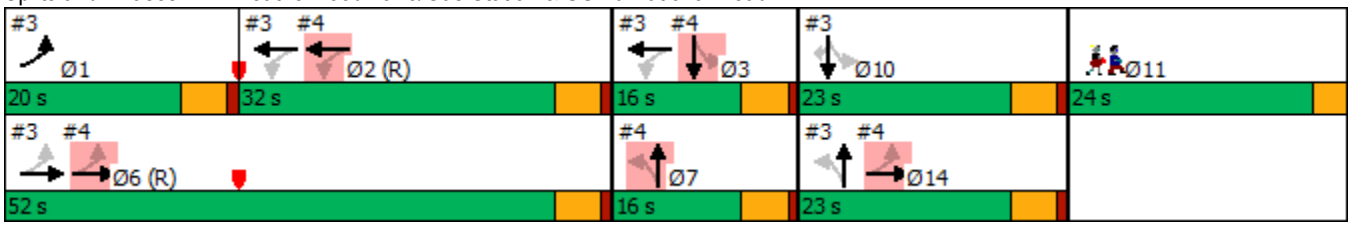
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

Intersection Summary

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

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

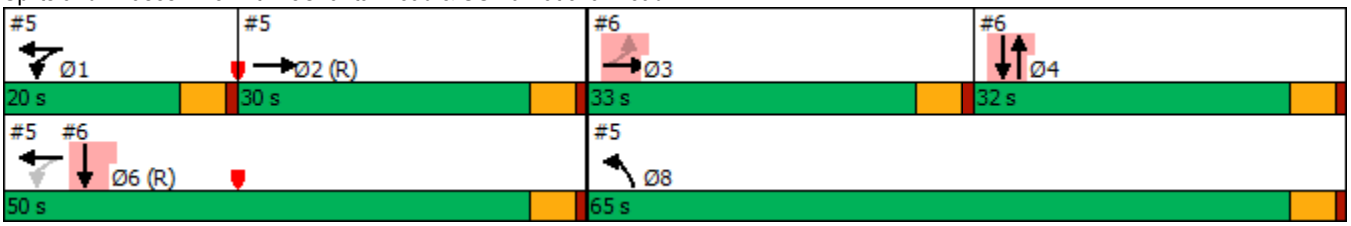
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	265	152	370	1107	396	0			
Future Volume (vph)	265	152	370	1107	396	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.945								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3157	0	1636	3455	3240	0			
Flt Permitted			0.254		0.950				
Satd. Flow (perm)	3157	0	437	3455	3240	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	90								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Heavy Vehicles (%)	3%	7%	3%	1%	5%	0%			
Adj. Flow (vph)	298	171	416	1244	445	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	469	0	416	1244	445	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	25.1		45.1	45.1	59.9				
Actuated g/C Ratio	0.22		0.39	0.39	0.52				
v/c Ratio	0.62		1.27	0.92	0.26				
Control Delay	36.5		180.7	58.2	5.9				
Queue Delay	0.0		0.1	0.0	3.4				
Total Delay	36.5		180.8	58.2	9.3				
LOS	D		F	E	A				
Approach Delay	36.5			88.9	9.3				
Approach LOS	D			F	A				
Queue Length 50th (ft)	134		~310	409	28				
Queue Length 95th (ft)	188		#506	#569	m37				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	760		328	1355	1690				
Starvation Cap Reductn	0		0	0	1128				
Spillback Cap Reductn	0		4	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.62		1.28	0.92	0.79				

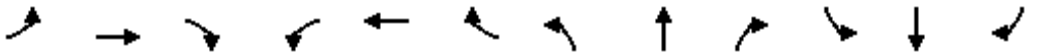
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 65.6		Intersection LOS: E	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

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

Splits and Phases: 5: Mt. DeChantal Road & US 40 National Road

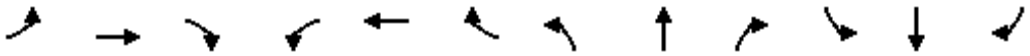


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	695	133	0	0	0	0	325	357	0	522	0
Future Volume (vph)	70	695	133	0	0	0	0	325	357	0	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99				
Frt		0.978						0.921				
Flt Protected		0.996										
Satd. Flow (prot)	0	3484	0	0	0	0	0	3307	0	0	2101	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3483	0	0	0	0	0	3307	0	0	2101	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16						226				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)	4		4	4		4	7		5	5		7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	1%	0%	0%	0%	0%	0%	5%	1%	0%	2%	0%
Adj. Flow (vph)	74	732	140	0	0	0	0	342	376	0	549	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	946	0	0	0	0	0	718	0	0	549	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		28.0						26.9			77.0	
Actuated g/C Ratio		0.24						0.23			0.67	
v/c Ratio		1.10						0.76			0.39	
Control Delay		102.1						30.2			2.2	
Queue Delay		0.0						0.0			21.2	
Total Delay		102.1						30.2			23.4	
LOS		F						C			C	
Approach Delay		102.1						30.2			23.4	
Approach LOS		F						C			C	
Queue Length 50th (ft)		~414						182			24	
Queue Length 95th (ft)		#547						213			m21	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		860						949			1390	
Starvation Cap Reductn		0						0			842	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.10						0.76			1.00	

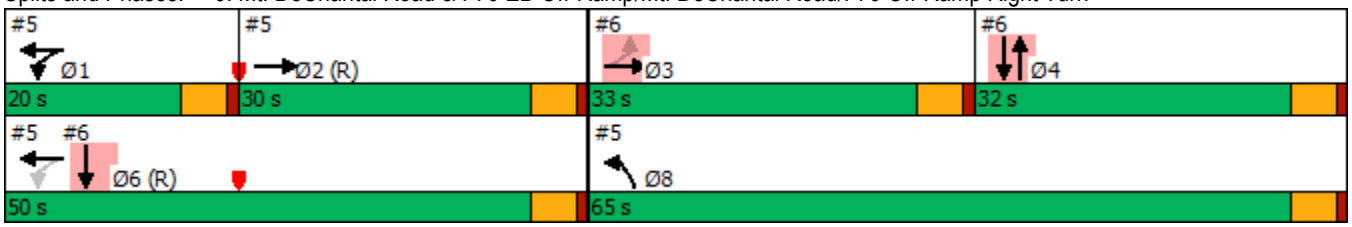
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 59.3		Intersection LOS: E	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

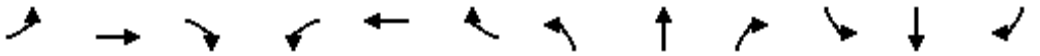
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	265	0	0	1477	0	1052
Future Volume (vph)	265	0	0	1477	0	1052
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3106	0	0	4398	0	2543
Flt Permitted						
Satd. Flow (perm)	3106	0	0	4398	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	0%	2%	0%	1%
Adj. Flow (vph)	285	0	0	1588	0	1131
Shared Lane Traffic (%)						
Lane Group Flow (vph)	285	0	0	1588	0	1131
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	265	0	0	1477	0	1052
Future Volume (Veh/h)	265	0	0	1477	0	1052
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	285	0	0	1588	0	1131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.85	
vC, conflicting volume			285		814	142
vC1, stage 1 conf vol					285	
vC2, stage 2 conf vol					529	
vCu, unblocked vol			285		168	142
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1289		723	882

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	142	142	529	529	529	566	566
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	566	566
cSH	1700	1700	1700	1700	1700	882	882
Volume to Capacity	0.08	0.08	0.31	0.31	0.31	0.64	0.64
Queue Length 95th (ft)	0	0	0	0	0	119	119
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	16.1	16.1
Lane LOS						C	C
Approach Delay (s)	0.0		0.0			16.1	
Approach LOS						C	

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	179	95	479	0	0	358	296
Future Volume (vph)	0	0	0	2	0	179	95	479	0	0	358	296
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)	6					6			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	4%	4%
Adj. Flow (vph)	0	0	0	2	0	188	100	504	0	0	377	312
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	188	100	504	0	0	689	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

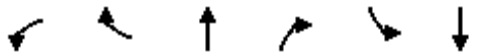
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	179	95	479	0	0	358	296
Future Vol, veh/h	0	0	0	2	0	179	95	479	0	0	358	296
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	2	0	4	0	0	4	4
Mvmt Flow	0	0	0	2	0	188	100	504	0	0	377	312

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	1237	-	510	689	0	-	-	-	0	
Stage 1	704	-	-	-	-	-	-	-	-	
Stage 2	533	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.1	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.2	-	-	-	-	-	
Pot Cap-1 Maneuver	210	0	571	915	-	0	0	-	-	
Stage 1	514	0	-	-	-	0	0	-	-	
Stage 2	610	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	187	0	568	915	-	-	-	-	-	
Mov Cap-2 Maneuver	187	0	-	-	-	-	-	-	-	
Stage 1	458	0	-	-	-	-	-	-	-	
Stage 2	610	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	14.6	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	915	-	187	568	-	-
HCM Lane V/C Ratio	0.109	-	0.011	0.332	-	-
HCM Control Delay (s)	9.4	-	24.5	14.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0	1.4	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	152	402	135	232	97
Future Volume (vph)	10	152	402	135	232	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1818	1697	1856	1977
Flt Permitted	0.950				0.446	
Satd. Flow (perm)	1787	1620	1818	1697	871	1977
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		167		140		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	4%	1%	0%	2%
Adj. Flow (vph)	11	167	442	148	255	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	167	442	148	255	107
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

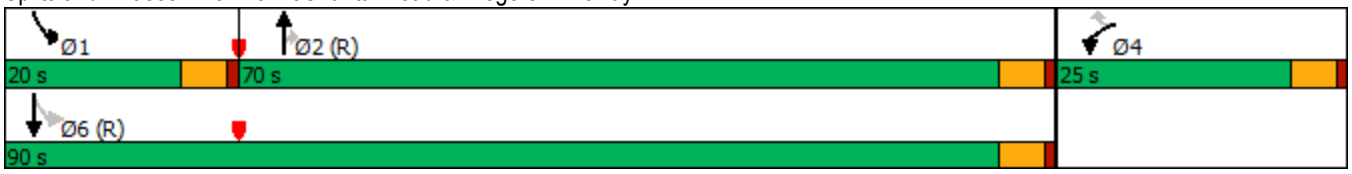


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.6	9.6	82.6	82.6	95.4	95.4
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.07	0.58	0.34	0.12	0.32	0.07
Control Delay	47.7	15.8	7.5	1.5	8.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.8	7.5	1.5	8.5	5.8
LOS	D	B	A	A	A	A
Approach Delay	17.7		6.0			7.7
Approach LOS	B		A			A
Queue Length 50th (ft)	8	0	99	1	77	30
Queue Length 95th (ft)	26	63	198	24	m157	m60
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	419	1306	1258	850	1640
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.40	0.34	0.12	0.30	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 40 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 8.4		Intersection LOS: A	
Intersection Capacity Utilization 50.7%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	152	402	135	232	97
Future Volume (veh/h)	10	152	402	135	232	97
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1835	1954	1970	1939
Adj Flow Rate, veh/h	11	167	442	148	255	107
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	2	4	1	0	2
Cap, veh/h	219	199	1262	1140	686	1533
Arrive On Green	0.12	0.12	0.69	0.69	0.10	1.00
Sat Flow, veh/h	1787	1628	1835	1656	1876	1939
Grp Volume(v), veh/h	11	167	442	148	255	107
Grp Sat Flow(s),veh/h/ln	1787	1628	1835	1656	1876	1939
Q Serve(g_s), s	0.6	11.5	11.4	3.5	4.6	0.0
Cycle Q Clear(g_c), s	0.6	11.5	11.4	3.5	4.6	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	219	199	1262	1140	686	1533
V/C Ratio(X)	0.05	0.84	0.35	0.13	0.37	0.07
Avail Cap(c_a), veh/h	311	283	1262	1140	820	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	49.4	7.4	6.1	4.6	0.0
Incr Delay (d2), s/veh	0.2	20.5	0.8	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.9	4.5	1.3	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	69.9	8.1	6.4	4.7	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	178		590			362
Approach Delay, s/veh	68.3		7.7			3.4
Approach LOS	E		A			A
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.8	84.1		19.1		95.9
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	6.6	13.4		13.5		2.0
Green Ext Time (p_c), s	0.3	8.4		0.6		1.4
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	396	79	845	584	0	0
Future Volume (vph)	396	79	845	584	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.975					
Flt Protected				0.971		
Satd. Flow (prot)	3004	0	0	3063	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3004	0	0	3063	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		3	3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	2%	3%	0%	0%
Adj. Flow (vph)	435	87	929	642	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	522	0	0	1571	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	396	79	845	584	0	0
Future Volume (Veh/h)	396	79	845	584	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	435	87	929	642	0	0
Pedestrians					3	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.66	
vC, conflicting volume			438		2660	264
vC1, stage 1 conf vol					482	
vC2, stage 2 conf vol					2179	
vCu, unblocked vol			438		2486	264
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			17		100	100
cM capacity (veh/h)			1118		14	740

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	290	232	1143	428
Volume Left	0	0	929	0
Volume Right	0	87	0	0
cSH	1700	1700	1118	1700
Volume to Capacity	0.17	0.14	0.83	0.25
Queue Length 95th (ft)	0	0	257	0
Control Delay (s)	0.0	0.0	21.5	0.0
Lane LOS			C	
Approach Delay (s)	0.0		15.6	
Approach LOS				

Intersection Summary			
Average Delay	11.7		
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	87	11	261	73	9	242
Future Volume (vph)	87	11	261	73	9	242
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.971			
Flt Protected	0.958					0.998
Satd. Flow (prot)	1565	0	1667	0	0	1548
Flt Permitted	0.958					0.998
Satd. Flow (perm)	1565	0	1667	0	0	1548
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	0%	0%	0%	0%	4%
Adj. Flow (vph)	99	13	297	83	10	275
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	380	0	0	285
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

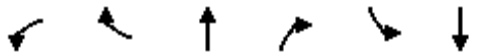
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	11	261	73	9	242
Future Vol, veh/h	87	11	261	73	9	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	0	0	4
Mvmt Flow	99	13	297	83	10	275

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	339	0	0	380	0
Stage 1	339	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	7.01	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.01	-	-	-	-	-
Critical Hdwy Stg 2	6.01	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	400	688	-	-	1190	-
Stage 1	684	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	396	688	-	-	1190	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	416	1190	-
HCM Lane V/C Ratio	-	-	0.268	0.009	-
HCM Control Delay (s)	-	-	16.8	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	394	22	558	296	17	492
Future Volume (vph)	394	22	558	296	17	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		400	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.158	
Satd. Flow (perm)	1770	1583	1872	1591	297	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		24		329		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	438	24	620	329	19	547
Shared Lane Traffic (%)						
Lane Group Flow (vph)	438	24	620	329	19	547
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	12.0	23.0	23.0	12.0	23.0
Total Split (s)	34.0	12.0	44.0	34.0	12.0	56.0
Total Split (%)	37.8%	13.3%	48.9%	37.8%	13.3%	62.2%
Maximum Green (s)	29.0	7.0	39.0	29.0	7.0	51.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	22.7	35.0	28.8	60.5	34.2	34.2
Actuated g/C Ratio	0.33	0.51	0.42	0.89	0.50	0.50
v/c Ratio	0.75	0.03	0.79	0.23	0.06	0.58
Control Delay	32.5	6.0	27.1	0.6	9.1	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	6.0	27.1	0.6	9.1	14.4
LOS	C	A	C	A	A	B
Approach Delay	31.2		17.9			14.2
Approach LOS	C		B			B
Queue Length 50th (ft)	190	0	262	0	4	159
Queue Length 95th (ft)	#362	14	425	11	14	263
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				400	300	
Base Capacity (vph)	859	854	1193	1457	323	1425
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.03	0.52	0.23	0.06	0.38

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 68.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.0		Intersection LOS: B	
Intersection Capacity Utilization 59.5%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Bethany Pike & Site Dwy

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	394	22	558	296	17	492
Future Volume (veh/h)	394	22	558	296	17	492
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	438	24	620	329	19	547
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	517	497	796	1144	256	1032
Arrive On Green	0.29	0.29	0.42	0.42	0.02	0.53
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	438	24	620	329	19	547
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	12.9	0.6	15.6	4.2	0.3	10.2
Cycle Q Clear(g_c), s	12.9	0.6	15.6	4.2	0.3	10.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	517	497	796	1144	256	1032
V/C Ratio(X)	0.85	0.05	0.78	0.29	0.07	0.53
Avail Cap(c_a), veh/h	929	863	1340	1605	447	1788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	13.3	14.0	3.0	10.6	8.5
Incr Delay (d2), s/veh	3.9	0.0	1.7	0.1	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.2	6.0	2.6	0.1	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.5	13.3	15.7	3.1	10.7	9.0
LnGrp LOS	C	B	B	A	B	A
Approach Vol, veh/h	462		949			566
Approach Delay, s/veh	22.0		11.3			9.0
Approach LOS	C		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.3	28.2			34.4	21.1
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	39.0			51.0	29.0
Max Q Clear Time (g_c+I1), s	2.3	17.6			12.2	14.9
Green Ext Time (p_c), s	0.0	5.6			4.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	75	7	17	90	9	22
Future Volume (vph)	75	7	17	90	9	22
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.905	
Flt Protected				0.992	0.986	
Satd. Flow (prot)	1647	0	0	1629	1487	0
Flt Permitted				0.992	0.986	
Satd. Flow (perm)	1647	0	0	1629	1487	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	8	19	100	10	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	0	0	119	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.0%		ICU Level of Service A	
Analysis Period (min) 15			

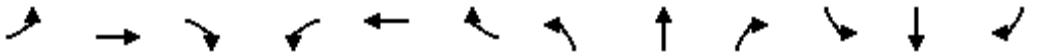
Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	7	17	90	9	22
Future Vol, veh/h	75	7	17	90	9	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	8	19	100	10	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	91	0	225	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1504	-	763	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	889	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1504	-	753	971
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	877	-

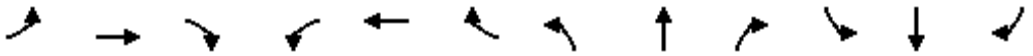
Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	896	-	-	1504	-
HCM Lane V/C Ratio	0.038	-	-	0.013	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	477	323	5	9	378	307	51	23	35	289	5	468
Future Volume (vph)	477	323	5	9	378	307	51	23	35	289	5	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.998			0.934			0.957				0.850
Flt Protected	0.950				0.999			0.977			0.953	
Satd. Flow (prot)	1778	1849	0	0	3288	0	0	1714	0	0	1829	1615
Flt Permitted	0.226				0.949			0.410			0.633	
Satd. Flow (perm)	423	1849	0	0	3123	0	0	719	0	0	1215	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			173			19				459
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			6	6								
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	507	344	5	10	402	327	54	24	37	307	5	498
Shared Lane Traffic (%)												
Lane Group Flow (vph)	507	349	0	0	739	0	0	115	0	0	312	498
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Reserved	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	20.0		20.0	20.0		17.0	17.0		17.0	17.0	9.5
Total Split (s)	28.0	65.0		37.0	37.0		30.0	30.0		30.0	30.0	28.0
Total Split (%)	24.3%	56.5%		32.2%	32.2%		26.1%	26.1%		26.1%	26.1%	24.3%
Maximum Green (s)	23.5	60.0		32.0	32.0		25.0	25.0		25.0	25.0	23.5
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5	5.0			5.0			5.0			5.0	4.5
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	76.7	76.2			48.2			25.0			25.0	53.5
Actuated g/C Ratio	0.67	0.66			0.42			0.22			0.22	0.47
v/c Ratio	0.91	0.28			0.52			0.67			1.18	0.50
Control Delay	60.2	7.2			21.3			55.1			154.0	4.4
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	60.2	7.2			21.3			55.1			154.0	4.4
LOS	E	A			C			E			F	A
Approach Delay		38.6			21.3			55.1			62.0	
Approach LOS		D			C			E			E	
Queue Length 50th (ft)	280	60			149			66			~278	15
Queue Length 95th (ft)	#493	106			273			#154			#456	79
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	558	1225			1409			171			264	996
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.91	0.28			0.52			0.67			1.18	0.50

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 100 (87%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	

Lane Group	Ø3
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	20.0
Total Split (%)	17%
Maximum Green (s)	15.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

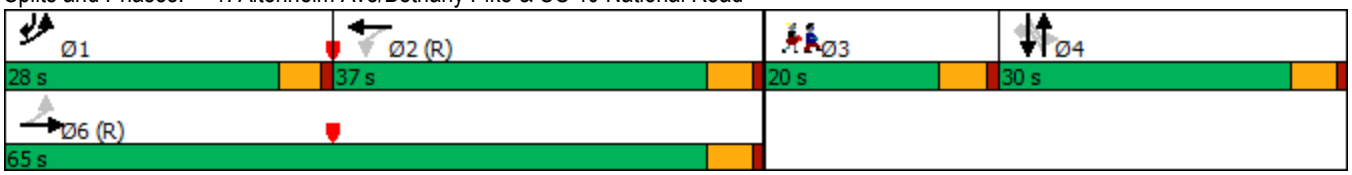
Intersection Summary

Intersection Signal Delay: 41.8	Intersection LOS: D
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

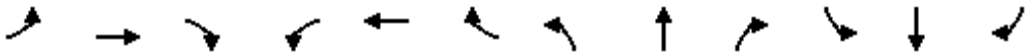
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	251	1	0	247	7	0	0	0	7	0	162
Future Volume (vph)	135	251	1	0	247	7	0	0	0	7	0	162
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.871	
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Flt Permitted	0.950										0.998	
Satd. Flow (perm)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	147	273	1	0	268	8	0	0	0	8	0	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	274	0	0	276	0	0	0	0	0	184	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

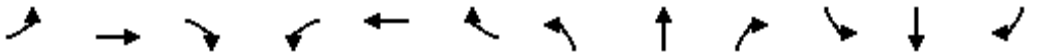
Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	135	251	1	0	247	7	0	0	0	7	0	162
Future Vol, veh/h	135	251	1	0	247	7	0	0	0	7	0	162
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	147	273	1	0	268	8	0	0	0	8	0	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	276	0	0	274	0	0	928	844	274	840	840	272
Stage 1	-	-	-	-	-	-	568	568	-	272	272	-
Stage 2	-	-	-	-	-	-	360	276	-	568	568	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1299	-	-	1301	-	-	226	275	758	301	318	777
Stage 1	-	-	-	-	-	-	480	478	-	750	699	-
Stage 2	-	-	-	-	-	-	636	665	-	528	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1299	-	-	1301	-	-	160	244	758	275	282	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	244	-	275	282	-
Stage 1	-	-	-	-	-	-	426	424	-	665	699	-
Stage 2	-	-	-	-	-	-	492	665	-	468	467	-

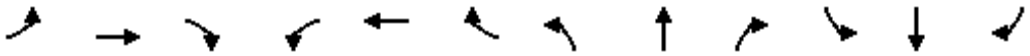
Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0	0	11.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1299	-	-	1301	-	-	722
HCM Lane V/C Ratio	-	0.113	-	-	-	-	-	0.254
HCM Control Delay (s)	0	8.1	-	-	0	-	-	11.7
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	957	27	13	888	15	4	0	3	16	2	50
Future Volume (vph)	50	957	27	13	888	15	4	0	3	16	2	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00							
Frt		0.996			0.998			0.942				0.850
Flt Protected	0.950			0.950				0.972			0.957	
Satd. Flow (prot)	1805	3554	0	1805	3566	0	0	2011	0	0	2040	1705
Flt Permitted	0.225			0.250				0.909			0.815	
Satd. Flow (perm)	427	3554	0	474	3566	0	0	1881	0	0	1737	1705
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			142				142
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		6	6		1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	54	1040	29	14	965	16	4	0	3	17	2	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1069	0	14	981	0	0	7	0	0	19	54
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7	Ø11
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	20.0	52.0					23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.4%	45.2%					20.0%	20.0%		20.0%	20.0%	20.0%
Maximum Green (s)	15.0	47.0					18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	71.0	71.0		78.1	78.1			18.0			18.0	18.0
Actuated g/C Ratio	0.62	0.62		0.68	0.68			0.16			0.16	0.16
v/c Ratio	0.16	0.49		0.04	0.41			0.02			0.07	0.14
Control Delay	8.7	10.8		1.0	1.0			0.0			42.2	0.8
Queue Delay	0.0	0.0		0.0	0.1			0.0			0.0	0.0
Total Delay	8.7	10.8		1.0	1.1			0.0			42.2	0.8
LOS	A	B		A	A			A			D	A
Approach Delay		10.7			1.1						11.6	
Approach LOS		B			A						B	
Queue Length 50th (ft)	13	175		0	3			0			12	0
Queue Length 95th (ft)	26	208		m1	14			0			35	0
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	443	2195		321	2421			414			271	386
Starvation Cap Reductn	0	0		0	334			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.12	0.49		0.04	0.47			0.02			0.07	0.14

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

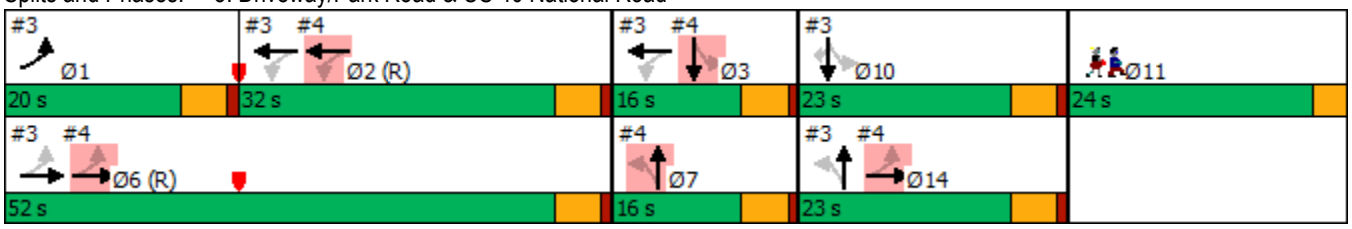
Lane Group	Ø2	Ø3	Ø7	Ø11
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	2	3	7	11
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0	17.0
Total Split (s)	32.0	16.0	16.0	24.0
Total Split (%)	28%	14%	14%	21%
Maximum Green (s)	27.0	11.0	11.0	21.0
Yellow Time (s)	4.0	4.0	4.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	5.0	4.0	4.0	3.0
Recall Mode	C-Max	None	None	None
Walk Time (s)				5.0
Flash Dont Walk (s)				9.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 6.4	Intersection LOS: A
Intersection Capacity Utilization 48.2%	ICU Level of Service A
Analysis Period (min) 15	

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

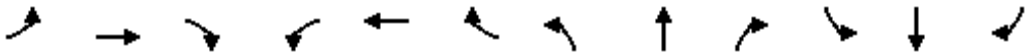
Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	925	45	27	844	2	60	1	29	7	0	12
Future Volume (vph)	5	925	45	27	844	2	60	1	29	7	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993						0.956			0.916	
Flt Protected				0.950				0.968			0.981	
Satd. Flow (prot)	0	3549	0	1787	3574	0	0	1732	0	0	1690	0
Flt Permitted		0.952		0.065				0.788			0.898	
Satd. Flow (perm)	0	3379	0	122	3574	0	0	1410	0	0	1547	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						17			142	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	5	1005	49	29	917	2	65	1	32	8	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1059	0	29	919	0	0	98	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				32.0	32.0		16.0	16.0		16.0	16.0	
Total Split (%)				27.8%	27.8%		13.9%	13.9%		13.9%	13.9%	
Maximum Green (s)				27.0	27.0		11.0	11.0		11.0	11.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		94.0		62.1	62.1			11.0			11.0	
Actuated g/C Ratio		0.82		0.54	0.54			0.10			0.10	
v/c Ratio		0.38		0.45	0.48			0.65			0.08	
Control Delay		1.1		36.9	14.5			62.3			0.5	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.2		36.9	14.5			62.3			0.5	
LOS		A		D	B			E			A	
Approach Delay		1.2			15.2			62.3			0.5	
Approach LOS		A			B			E			A	
Queue Length 50th (ft)		3		10	162			59			0	
Queue Length 95th (ft)		0		m24	222			#135			0	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2763		65	1929			150			276	
Starvation Cap Reductn		425		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.45		0.45	0.48			0.65			0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	

Lane Group	Ø1	Ø6	Ø10	Ø11	Ø14
Protected Phases	1	6	10	11	14
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	17.0	12.0
Total Split (s)	20.0	52.0	23.0	24.0	23.0
Total Split (%)	17%	45%	20%	21%	20%
Maximum Green (s)	15.0	47.0	18.0	21.0	18.0
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead				
Lead-Lag Optimize?	Yes				
Vehicle Extension (s)	2.0	5.0	4.0	3.0	4.0
Recall Mode	None	C-Max	None	None	None
Walk Time (s)				5.0	
Flash Dont Walk (s)				9.0	
Pedestrian Calls (#/hr)				0	
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					
Reduced v/c Ratio					

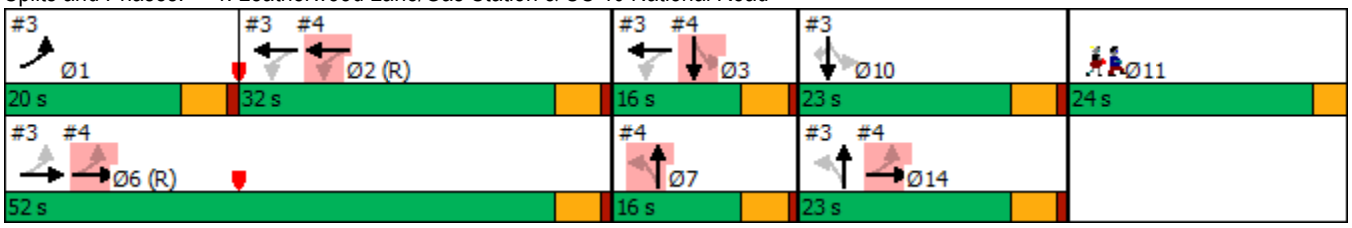
Intersection Summary

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: 4: Leatherwood Lane/Gas Station & US 40 National Road



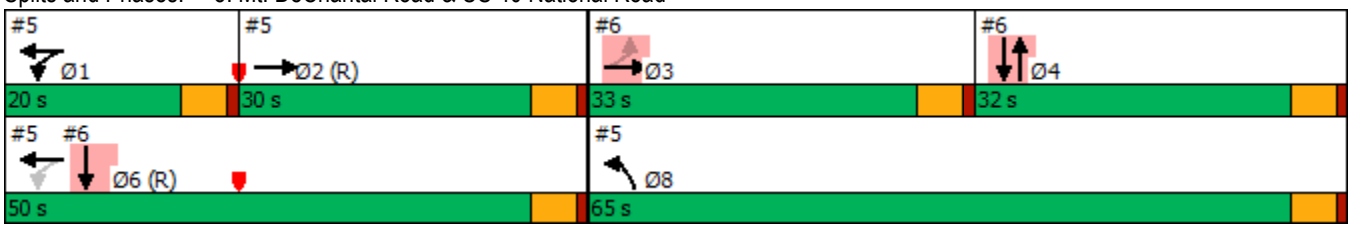
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	204	135	287	704	297	0			
Future Volume (vph)	204	135	287	704	297	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.940								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3222	0	1668	3455	3368	0			
Flt Permitted			0.364		0.950				
Satd. Flow (perm)	3222	0	639	3455	3368	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	125								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	3%	1%	1%	1%	0%			
Adj. Flow (vph)	217	144	305	749	316	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	361	0	305	749	316	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

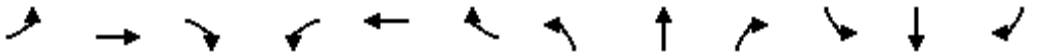
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	30.0		20.0		65.0		33.0	32.0	50.0
Total Split (%)	26.1%		17.4%		56.5%		29%	28%	43%
Maximum Green (s)	25.0		15.0		60.0		28.0	27.0	45.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	27.2		47.2	47.2	57.8				
Actuated g/C Ratio	0.24		0.41	0.41	0.50				
v/c Ratio	0.42		0.77	0.53	0.19				
Control Delay	26.2		52.9	40.6	5.7				
Queue Delay	0.0		0.0	0.0	1.4				
Total Delay	26.2		52.9	40.6	7.2				
LOS	C		D	D	A				
Approach Delay	26.2			44.2	7.2				
Approach LOS	C			D	A				
Queue Length 50th (ft)	78		227	306	22				
Queue Length 95th (ft)	125		#354	372	m22				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	858		396	1418	1757				
Starvation Cap Reductn	0		0	0	1228				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.42		0.77	0.53	0.60				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 33.7		Intersection LOS: C	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
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: 5: Mt. DeChantal Road & US 40 National Road

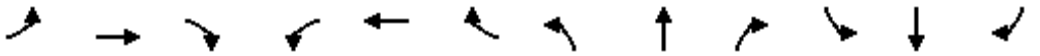


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	527	109	0	0	0	0	218	325	0	422	0
Future Volume (vph)	79	527	109	0	0	0	0	218	325	0	422	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor								0.99				
Frt		0.977						0.910				
Flt Protected		0.994										
Satd. Flow (prot)	0	3523	0	0	0	0	0	3334	0	0	2121	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3523	0	0	0	0	0	3334	0	0	2121	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17						307				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%
Adj. Flow (vph)	86	573	118	0	0	0	0	237	353	0	459	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	777	0	0	0	0	0	590	0	0	459	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

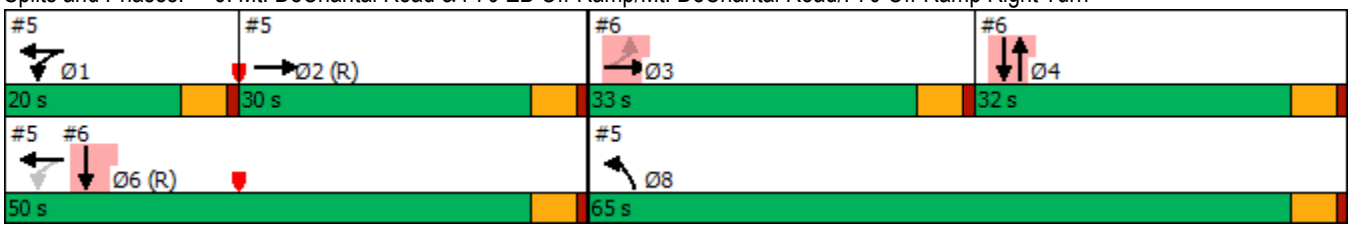
Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	33.0	33.0						32.0				
Total Split (%)	28.7%	28.7%						27.8%				
Maximum Green (s)	28.0	28.0						27.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		27.8						25.0			77.2	
Actuated g/C Ratio		0.24						0.22			0.67	
v/c Ratio		0.90						0.61			0.32	
Control Delay		55.9						29.8			2.0	
Queue Delay		0.0						0.0			1.8	
Total Delay		55.9						29.8			3.7	
LOS		E						C			A	
Approach Delay		55.9						29.8			3.7	
Approach LOS		E						C			A	
Queue Length 50th (ft)		287						121			17	
Queue Length 95th (ft)		#397						185			34	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		870						1017			1412	
Starvation Cap Reductn		0						0			760	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.89						0.58			0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 34.3		Intersection LOS: C	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	20.0	30.0	50.0	65.0
Total Split (%)	17%	26%	43%	57%
Maximum Green (s)	15.0	25.0	45.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.

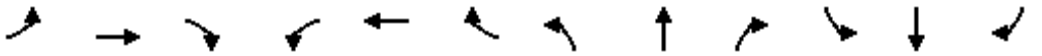
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	204	0	0	991	0	852
Future Volume (vph)	204	0	0	991	0	852
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Ped Bike Factor						
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3198	0	0	4442	0	2543
Flt Permitted						
Satd. Flow (perm)	3198	0	0	4442	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	0%	1%	0%	1%
Adj. Flow (vph)	219	0	0	1066	0	916
Shared Lane Traffic (%)						
Lane Group Flow (vph)	219	0	0	1066	0	916
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	204	0	0	991	0	852
Future Volume (Veh/h)	204	0	0	991	0	852
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	219	0	0	1066	0	916
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.98	
vC, conflicting volume			221		576	112
vC1, stage 1 conf vol					221	
vC2, stage 2 conf vol					355	
vCu, unblocked vol			221		477	112
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	1
cM capacity (veh/h)			1357		670	922

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	110	110	355	355	355	458	458
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	458	458
cSH	1700	1700	1700	1700	1700	922	922
Volume to Capacity	0.06	0.06	0.21	0.21	0.21	0.50	0.50
Queue Length 95th (ft)	0	0	0	0	0	71	71
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	12.7	12.7
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			12.7	
Approach LOS						B	

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	166	74	355	0	0	309	222
Future Volume (vph)	0	0	0	2	0	166	74	355	0	0	309	222
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.943	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1549	1546	1675	0	0	1579	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1549	1546	1675	0	0	1579	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)			1	1			1		3	3		1
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	5%	2%	0%	0%	1%	1%
Adj. Flow (vph)	0	0	0	2	0	175	78	374	0	0	325	234
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	175	78	374	0	0	559	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	166	74	355	0	0	309	222
Future Vol, veh/h	0	0	0	2	0	166	74	355	0	0	309	222
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	5	2	0	0	1	1
Mvmt Flow	0	0	0	2	0	175	78	374	0	0	325	234

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	973	-	374	560	0	-	-	-	0	
Stage 1	530	-	-	-	-	-	-	-	-	
Stage 2	443	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.1	4.15	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.3	2.245	-	-	-	-	-	
Pot Cap-1 Maneuver	298	0	684	996	-	0	0	-	-	
Stage 1	612	0	-	-	-	0	0	-	-	
Stage 2	668	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	274	0	684	996	-	-	-	-	-	
Mov Cap-2 Maneuver	274	0	-	-	-	-	-	-	-	
Stage 1	564	0	-	-	-	-	-	-	-	
Stage 2	667	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	12.2	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	996	-	274	684	-	-
HCM Lane V/C Ratio	0.078	-	0.008	0.255	-	-
HCM Control Delay (s)	8.9	-	18.2	12.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0	1	-	-

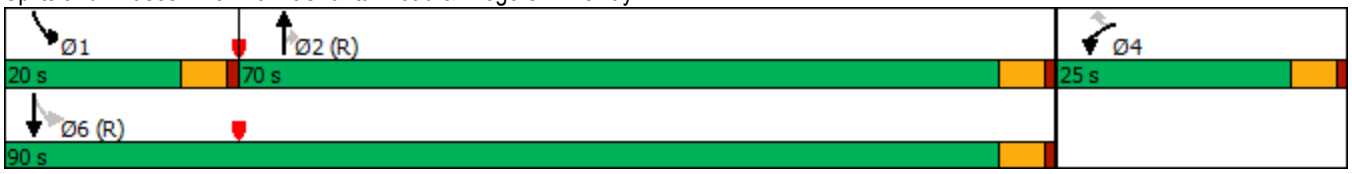
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	120	292	98	224	57
Future Volume (vph)	7	120	292	98	224	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1853	1697	1837	2017
Flt Permitted	0.950				0.527	
Satd. Flow (perm)	1787	1620	1853	1697	1019	2017
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		128		104		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	1%	1%	0%
Adj. Flow (vph)	7	128	311	104	238	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	128	311	104	238	61
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	3.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.2	9.2	82.3	82.3	95.8	95.8
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.05	0.52	0.23	0.08	0.26	0.04
Control Delay	47.7	16.1	6.6	1.4	1.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	16.1	6.6	1.4	1.8	1.2
LOS	D	B	A	A	A	A
Approach Delay	17.7		5.3			1.7
Approach LOS	B		A			A
Queue Length 50th (ft)	5	0	65	0	6	1
Queue Length 95th (ft)	19	57	128	18	m32	m10
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	387	1326	1244	955	1679
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.33	0.23	0.08	0.25	0.04

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 45 (39%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	120	292	98	224	57
Future Volume (veh/h)	7	120	292	98	224	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1864	1954	1954	1970
Adj Flow Rate, veh/h	7	128	311	104	238	61
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	1	1	0
Cap, veh/h	174	159	1338	1189	835	1606
Arrive On Green	0.10	0.10	0.72	0.72	0.09	1.00
Sat Flow, veh/h	1787	1628	1864	1656	1861	1970
Grp Volume(v), veh/h	7	128	311	104	238	61
Grp Sat Flow(s),veh/h/ln	1787	1628	1864	1656	1861	1970
Q Serve(g_s), s	0.4	8.9	6.5	2.2	3.8	0.0
Cycle Q Clear(g_c), s	0.4	8.9	6.5	2.2	3.8	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	174	159	1338	1189	835	1606
V/C Ratio(X)	0.04	0.81	0.23	0.09	0.29	0.04
Avail Cap(c_a), veh/h	311	283	1338	1189	976	1606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	50.8	5.5	4.9	3.2	0.0
Incr Delay (d2), s/veh	0.2	18.1	0.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	2.5	0.8	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.2	68.9	5.9	5.0	3.4	0.0
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	135		415			299
Approach Delay, s/veh	67.8		5.7			2.7
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.3	87.5		16.2		98.8
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	5.8	8.5		10.9		2.0
Green Ext Time (p_c), s	0.5	5.4		0.5		0.8

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

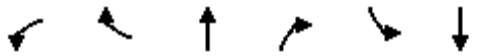
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	284	69	610	400	0	0
Future Volume (vph)	284	69	610	400	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.971					
Flt Protected				0.971		
Satd. Flow (prot)	3099	0	0	3093	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3099	0	0	3093	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		4	4			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	1%	2%	0%	0%
Adj. Flow (vph)	299	73	642	421	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	372	0	0	1063	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	284	69	610	400	0	0
Future Volume (Veh/h)	284	69	610	400	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	299	73	642	421	0	0
Pedestrians					4	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.84	
vC, conflicting volume			303		1834	190
vC1, stage 1 conf vol					340	
vC2, stage 2 conf vol					1494	
vCu, unblocked vol			303		1612	190
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			49		100	100
cM capacity (veh/h)			1262		100	826

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	199	173	782	281
Volume Left	0	0	642	0
Volume Right	0	73	0	0
cSH	1700	1700	1262	1700
Volume to Capacity	0.12	0.10	0.51	0.17
Queue Length 95th (ft)	0	0	75	0
Control Delay (s)	0.0	0.0	9.9	0.0
Lane LOS			A	
Approach Delay (s)	0.0		7.3	
Approach LOS				

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	61	8	201	61	10	185
Future Volume (vph)	61	8	201	61	10	185
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.969			
Flt Protected	0.958					0.997
Satd. Flow (prot)	1579	0	1664	0	0	1561
Flt Permitted	0.958					0.997
Satd. Flow (perm)	1579	0	1664	0	0	1561
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	67	9	221	67	11	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	288	0	0	214
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	8	201	61	10	185
Future Vol, veh/h	61	8	201	61	10	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	67	9	221	67	11	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	480	255	0	0	288	0
Stage 1	255	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	506	772	-	-	1286	-
Stage 1	759	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	772	-	-	1286	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.4
HCM LOS	B		

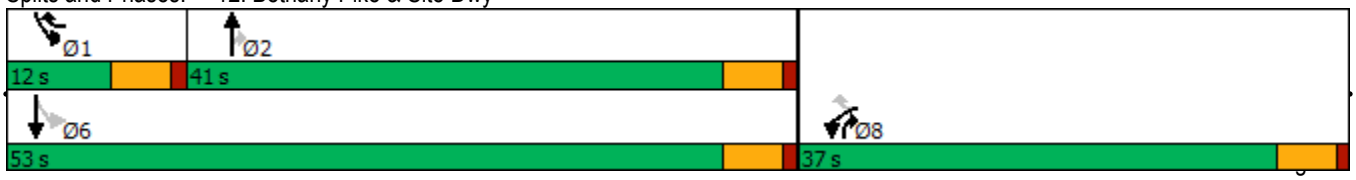
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	522	1286	-
HCM Lane V/C Ratio	-	-	0.145	0.009	-
HCM Control Delay (s)	-	-	13.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

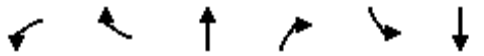
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	308	18	368	356	20	389
Future Volume (vph)	308	18	368	356	20	389
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		475	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.300	
Satd. Flow (perm)	1770	1583	1872	1591	564	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		20		396		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	342	20	409	396	22	432
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	20	409	396	22	432
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	12.0	23.0	23.0	12.0	23.0
Total Split (s)	37.0	12.0	41.0	37.0	12.0	53.0
Total Split (%)	41.1%	13.3%	45.6%	41.1%	13.3%	58.9%
Maximum Green (s)	32.0	7.0	36.0	32.0	7.0	48.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	17.3	29.9	18.7	46.2	21.9	21.9
Actuated g/C Ratio	0.34	0.59	0.37	0.91	0.43	0.43
v/c Ratio	0.57	0.02	0.60	0.27	0.05	0.53
Control Delay	20.2	4.7	19.3	0.7	8.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	4.7	19.3	0.7	8.9	13.2
LOS	C	A	B	A	A	B
Approach Delay	19.4		10.1			13.0
Approach LOS	B		B			B
Queue Length 50th (ft)	64	0	77	0	3	83
Queue Length 95th (ft)	220	10	253	13	16	198
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				475	300	
Base Capacity (vph)	1253	981	1419	1519	439	1627
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.02	0.29	0.26	0.05	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 50.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Bethany Pike & Site Dwy





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	18	368	356	20	389
Future Volume (veh/h)	308	18	368	356	20	389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	342	20	409	396	22	432
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	448	442	649	957	346	963
Arrive On Green	0.25	0.25	0.34	0.34	0.03	0.49
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	342	20	409	396	22	432
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	7.0	0.4	7.1	5.2	0.3	5.7
Cycle Q Clear(g_c), s	7.0	0.4	7.1	5.2	0.3	5.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	448	442	649	957	346	963
V/C Ratio(X)	0.76	0.05	0.63	0.41	0.06	0.45
Avail Cap(c_a), veh/h	1450	1333	1748	1889	626	2379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	10.4	10.9	4.3	7.8	6.5
Incr Delay (d2), s/veh	2.7	0.0	1.0	0.3	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.1	2.4	2.3	0.1	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	10.4	11.9	4.6	7.9	6.8
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	362		805			454
Approach Delay, s/veh	16.0		8.3			6.8
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	18.4			24.4	14.9
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	36.0			48.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	9.1			7.7	9.0
Green Ext Time (p_c), s	0.0	4.3			3.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	8	20	62	7	18
Future Volume (vph)	63	8	20	62	7	18
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.985				0.904	
Flt Protected				0.988	0.986	
Satd. Flow (prot)	1642	0	0	1622	1486	0
Flt Permitted				0.988	0.986	
Satd. Flow (perm)	1642	0	0	1622	1486	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	9	22	69	8	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	0	0	91	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	8	20	62	7	18
Future Vol, veh/h	63	8	20	62	7	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	9	22	69	8	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	79	0	188	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	113	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1519	-	801	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	789	986
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	898	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	922	-	-	1519	-
HCM Lane V/C Ratio	0.03	-	-	0.015	-
HCM Control Delay (s)	9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

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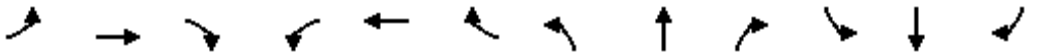
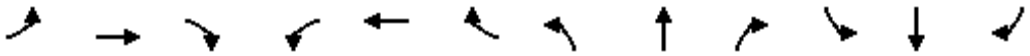
Appendix J. Year of Full Build-Out 2030 With Development (Build) Mitigated Synchro Analyses



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	446	224	3	11	320	218	195	42	50	193	2	541
Future Volume (vph)	446	224	3	11	320	218	195	42	50	193	2	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.99
Frt		0.998			0.940			0.976				0.850
Flt Protected	0.950				0.999			0.967			0.953	
Satd. Flow (prot)	1693	1685	0	0	3273	0	0	1713	0	0	1793	1584
Flt Permitted	0.179				0.946			0.557			0.588	
Satd. Flow (perm)	319	1685	0	0	3099	0	0	986	0	0	1106	1563
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			152			12				128
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			2	2			2					2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	5%	11%	0%	0%	3%	2%	1%	0%	2%	2%	0%	3%
Adj. Flow (vph)	525	264	4	13	376	256	229	49	59	227	2	636
Shared Lane Traffic (%)												
Lane Group Flow (vph)	525	268	0	0	645	0	0	337	0	0	229	636
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												



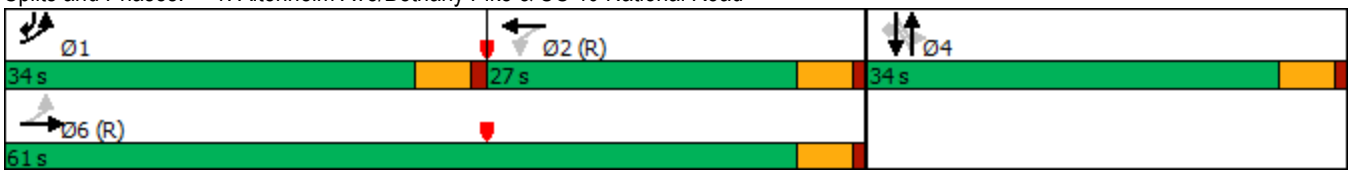
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	34.0	61.0		27.0	27.0		34.0	34.0		34.0	34.0	34.0
Total Split (%)	35.8%	64.2%		28.4%	28.4%		35.8%	35.8%		35.8%	35.8%	35.8%
Maximum Green (s)	29.0	56.0		22.0	22.0		29.0	29.0		29.0	29.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag							Lead
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	2.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	2.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Act Effct Green (s)	56.0	56.0			24.3			29.0			29.0	55.7
Actuated g/C Ratio	0.59	0.59			0.26			0.31			0.31	0.59
v/c Ratio	0.91	0.27			0.71			1.09			0.68	0.65
Control Delay	32.4	6.4			30.1			110.3			40.8	11.3
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	32.4	6.4			30.1			110.3			40.8	11.3
LOS	C	A			C			F			D	B
Approach Delay		23.7			30.1			110.3			19.1	
Approach LOS		C			C			F			B	
Queue Length 50th (ft)	239	71			148			~226			121	145
Queue Length 95th (ft)	#372	95			195			#365			192	208
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	607	993			904			309			337	1010
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.86	0.27			0.71			1.09			0.68	0.63

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 54 (57%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 34.8		Intersection LOS: C	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

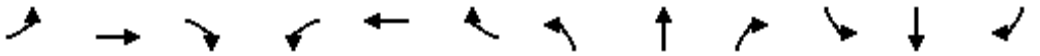
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support Non-NEMA phasing.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	246	2	0	319	3	0	0	0	7	0	269
Future Volume (vph)	141	246	2	0	319	3	0	0	0	7	0	269
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999						0.869	
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Flt Permitted	0.950										0.999	
Satd. Flow (perm)	1466	1674	0	0	1641	0	0	1907	0	0	1400	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	0%	0%	3%	0%	0%	0%	0%	17%	0%	2%
Adj. Flow (vph)	157	273	2	0	354	3	0	0	0	8	0	299
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	275	0	0	357	0	0	0	0	0	307	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

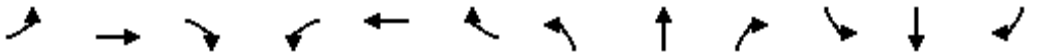
Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	141	246	2	0	319	3	0	0	0	7	0	269
Future Vol, veh/h	141	246	2	0	319	3	0	0	0	7	0	269
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	7	2	0	0	3	0	0	0	0	17	0	2
Mvmt Flow	157	273	2	0	354	3	0	0	0	8	0	299

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	358	0	0	275	0	0	1093	946	274	945	946	357
Stage 1	-	-	-	-	-	-	588	588	-	357	357	-
Stage 2	-	-	-	-	-	-	505	358	-	588	589	-
Critical Hdwy	4.17	-	-	4.1	-	-	7.5	6.9	6.4	7.07	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	6.07	5.3	-
Follow-up Hdwy	2.263	-	-	2.2	-	-	3.5	4	3.3	3.653	4	3.318
Pot Cap-1 Maneuver	1173	-	-	1300	-	-	171	237	758	240	278	694
Stage 1	-	-	-	-	-	-	467	468	-	643	645	-
Stage 2	-	-	-	-	-	-	523	607	-	486	515	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1172	-	-	1300	-	-	87	205	758	215	240	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	205	-	215	240	-
Stage 1	-	-	-	-	-	-	404	405	-	556	644	-
Stage 2	-	-	-	-	-	-	297	606	-	421	446	-

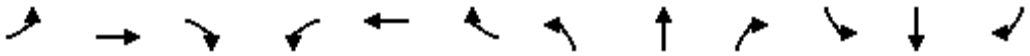
Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	0	15.2
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1172	-	-	1300	-	-	656
HCM Lane V/C Ratio	-	0.134	-	-	-	-	-	0.467
HCM Control Delay (s)	0	8.5	-	-	0	-	-	15.2
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.5	-	-	0	-	-	2.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	955	6	0	982	48	3	0	2	36	0	198
Future Volume (vph)	184	955	6	0	982	48	3	0	2	36	0	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.999			0.993			0.955				0.850
Flt Protected	0.950							0.968			0.950	
Satd. Flow (prot)	1787	3428	0	1900	3482	0	0	1664	0	0	1911	1689
Flt Permitted	0.164							0.796			0.754	
Satd. Flow (perm)	309	3428	0	1900	3482	0	0	1369	0	0	1516	1689
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			12			138				232
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)			5	5								
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	1%	5%	33%	0%	3%	2%	33%	0%	0%	6%	0%	1%
Adj. Flow (vph)	216	1124	7	0	1155	56	4	0	2	42	0	233
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	1131	0	0	1211	0	0	6	0	0	42	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	13.0	68.0					12.0	12.0		12.0	12.0	12.0
Total Split (%)	13.7%	71.6%					12.6%	12.6%		12.6%	12.6%	12.6%
Maximum Green (s)	8.0	63.0					7.0	7.0		7.0	7.0	7.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Act Effct Green (s)	63.0	63.0			65.3			7.0			7.0	7.0
Actuated g/C Ratio	0.66	0.66			0.69			0.07			0.07	0.07
v/c Ratio	0.67	0.50			0.51			0.03			0.38	0.69
Control Delay	16.9	9.0			0.8			0.2			52.2	17.4
Queue Delay	0.0	0.0			0.2			0.0			0.0	0.0
Total Delay	16.9	9.0			0.9			0.2			52.2	17.4
LOS	B	A			A			A			D	B
Approach Delay		10.2			0.9			0.2			22.7	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	40	185			3			0			25	1
Queue Length 95th (ft)	59	221			2			0			56	59
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	329	2273			2398			228			111	339
Starvation Cap Reductn	0	0			351			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.66	0.50			0.59			0.03			0.38	0.69

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 57.6%		ICU Level of Service B	

Lane Group	Ø2	Ø3	Ø7
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	2	3	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0
Total Split (s)	55.0	15.0	15.0
Total Split (%)	58%	16%	16%
Maximum Green (s)	50.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	5.0	4.0	4.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Analysis Period (min) 15

Splits and Phases: 3: Driveway/Park Road & US 40 National Road

HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	883	99	51	986	11	8	0	17	4	1	31
Future Volume (vph)	11	883	99	51	986	11	8	0	17	4	1	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.998			0.907			0.884	
Flt Protected		0.999		0.950				0.985			0.994	
Satd. Flow (prot)	0	3394	0	1770	3498	0	0	1656	0	0	1637	0
Flt Permitted		0.937		0.080				0.905			0.966	
Satd. Flow (perm)	0	3183	0	149	3498	0	0	1521	0	0	1591	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			2			138			36	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	2%	5%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	13	1039	116	60	1160	13	9	0	20	5	1	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1168	0	60	1173	0	0	29	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø14
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				55.0	55.0		15.0	15.0		15.0	15.0	
Total Split (%)				57.9%	57.9%		15.8%	15.8%		15.8%	15.8%	
Maximum Green (s)				50.0	50.0		10.0	10.0		10.0	10.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		75.0		50.3	50.3			10.0			10.0	
Actuated g/C Ratio		0.79		0.53	0.53			0.11			0.11	
v/c Ratio		0.46		0.77	0.63			0.10			0.21	
Control Delay		1.7		60.9	14.0			0.7			18.5	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		1.7		60.9	14.0			0.7			18.5	
LOS		A		E	B			A			B	
Approach Delay		1.7			16.3			0.7			18.5	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		10		31	239			0			3	
Queue Length 95th (ft)		0		m#60	m243			0			32	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2521		78	1854			283			199	
Starvation Cap Reductn		107		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.48		0.77	0.63			0.10			0.21	

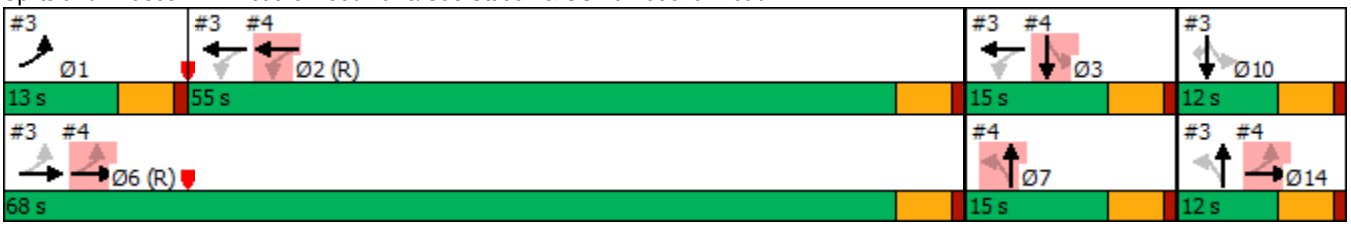
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø6	Ø10	Ø14
Protected Phases	1	6	10	14
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	12.0
Total Split (s)	13.0	68.0	12.0	12.0
Total Split (%)	14%	72%	13%	13%
Maximum Green (s)	8.0	63.0	7.0	7.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	2.0	5.0	4.0	4.0
Recall Mode	None	C-Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



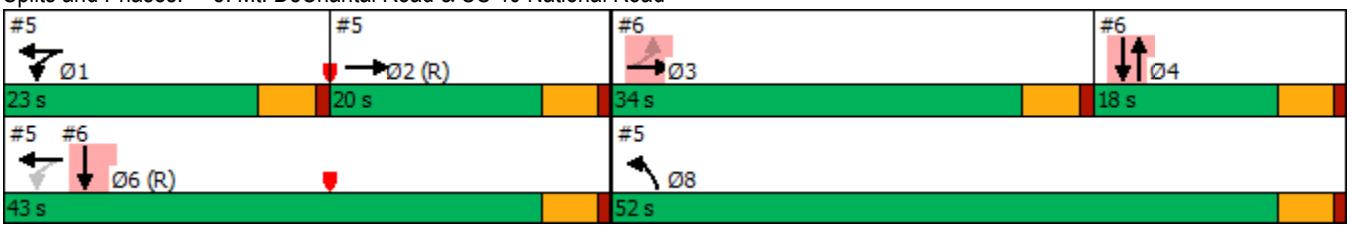
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	184	130	309	894	245	0			
Future Volume (vph)	184	130	309	894	245	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.938								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3044	0	1652	3388	3271	0			
Flt Permitted			0.298		0.950				
Satd. Flow (perm)	3044	0	518	3388	3271	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	144								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Heavy Vehicles (%)	10%	4%	2%	3%	4%	0%			
Adj. Flow (vph)	204	144	343	993	272	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	348	0	343	993	272	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

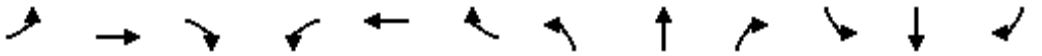
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	20.0		23.0		52.0		34.0	18.0	43.0
Total Split (%)	21.1%		24.2%		54.7%		36%	19%	45%
Maximum Green (s)	15.0		18.0		47.0		29.0	13.0	38.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	15.1		38.1	38.1	46.9				
Actuated g/C Ratio	0.16		0.40	0.40	0.49				
v/c Ratio	0.58		0.81	0.73	0.17				
Control Delay	25.6		26.3	13.5	8.0				
Queue Delay	0.0		0.0	0.0	3.0				
Total Delay	25.6		26.3	13.5	11.0				
LOS	C		C	B	B				
Approach Delay	25.6			16.8	11.0				
Approach LOS	C			B	B				
Queue Length 50th (ft)	58		47	131	21				
Queue Length 95th (ft)	105		#254	211	m33				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	605		423	1359	1618				
Starvation Cap Reductn	0		0	0	1226				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.58		0.81	0.73	0.69				

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 57 (60%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
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: 5: Mt. DeChantal Road & US 40 National Road

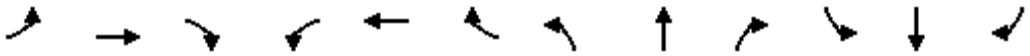


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	682	86	0	0	0	0	188	303	0	439	0
Future Volume (vph)	57	682	86	0	0	0	0	188	303	0	439	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984						0.907				
Flt Protected		0.997										
Satd. Flow (prot)	0	3441	0	0	0	0	0	3222	0	0	2080	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3441	0	0	0	0	0	3222	0	0	2080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						348				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)							2					2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	4%	0%	0%	0%	0%	5%	5%	5%	0%	3%	0%
Adj. Flow (vph)	66	784	99	0	0	0	0	216	348	0	505	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	949	0	0	0	0	0	564	0	0	505	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	34.0	34.0						18.0				
Total Split (%)	35.8%	35.8%						18.9%				
Maximum Green (s)	29.0	29.0						13.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		28.9						13.0			56.1	
Actuated g/C Ratio		0.30						0.14			0.59	
v/c Ratio		0.90						0.76			0.41	
Control Delay		43.9						19.0			3.4	
Queue Delay		0.0						0.0			2.3	
Total Delay		43.9						19.0			5.7	
LOS		D						B			A	
Approach Delay		43.9						19.0			5.7	
Approach LOS		D						B			A	
Queue Length 50th (ft)		282						64			30	
Queue Length 95th (ft)		#374						116			m35	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		1060						741			1229	
Starvation Cap Reductn		0						0			570	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.90						0.76			0.77	

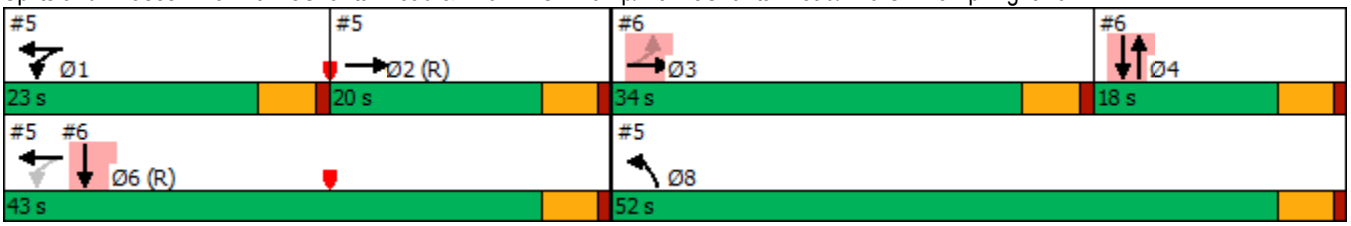
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 57 (60%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 27.4		Intersection LOS: C	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	23.0	20.0	43.0	52.0
Total Split (%)	24%	21%	45%	55%
Maximum Green (s)	18.0	15.0	38.0	47.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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

Splits and Phases: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

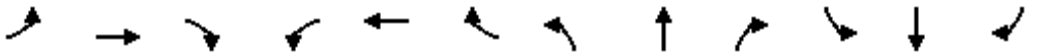
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	184	0	0	1203	0	986
Future Volume (vph)	184	0	0	1203	0	986
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	2963	0	0	4398	0	2470
Flt Permitted						
Satd. Flow (perm)	2963	0	0	4398	0	2470
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	9%	0%	0%	2%	0%	4%
Adj. Flow (vph)	216	0	0	1415	0	1160
Shared Lane Traffic (%)						
Lane Group Flow (vph)	216	0	0	1415	0	1160
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	184	0	0	1203	0	986
Future Volume (Veh/h)	184	0	0	1203	0	986
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	216	0	0	1415	0	1160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.98	
vC, conflicting volume			216		688	108
vC1, stage 1 conf vol					216	
vC2, stage 2 conf vol					472	
vCu, unblocked vol			216		626	108
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1366		585	919

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	108	108	472	472	472	580	580
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	580	580
cSH	1700	1700	1700	1700	1700	919	919
Volume to Capacity	0.06	0.06	0.28	0.28	0.28	0.63	0.63
Queue Length 95th (ft)	0	0	0	0	0	116	116
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	15.4	15.4
Lane LOS						C	C
Approach Delay (s)	0.0		0.0			15.4	
Approach LOS						C	

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	4	0	83	52	397	0	0	259	267
Future Volume (vph)	0	0	0	4	0	83	52	397	0	0	259	267
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.931	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1576	1627	0	0	1528	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)									2	2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	5%	0%	0%	1%	5%
Adj. Flow (vph)	0	0	0	4	0	92	58	441	0	0	288	297
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	4	0	92	58	441	0	0	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.4

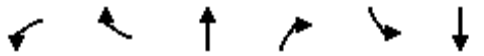
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	4	0	83	52	397	0	0	259	267
Future Vol, veh/h	0	0	0	4	0	83	52	397	0	0	259	267
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	2	3	5	0	0	1	5
Mvmt Flow	0	0	0	4	0	92	58	441	0	0	288	297

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	994	-	441	585	0	-	-	-	0	
Stage 1	557	-	-	-	-	-	-	-	-	
Stage 2	437	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.13	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.227	-	-	-	-	-	
Pot Cap-1 Maneuver	290	0	624	985	-	0	0	-	-	
Stage 1	596	0	-	-	-	0	0	-	-	
Stage 2	672	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	273	0	624	985	-	-	-	-	-	
Mov Cap-2 Maneuver	273	0	-	-	-	-	-	-	-	
Stage 1	561	0	-	-	-	-	-	-	-	
Stage 2	672	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	12.1	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	985	-	273	624	-	-
HCM Lane V/C Ratio	0.059	-	0.016	0.148	-	-
HCM Control Delay (s)	8.9	-	18.4	11.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.5	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	72	368	70	139	106
Future Volume (vph)	6	72	368	70	139	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1652	1783	1714	1856	1997
Flt Permitted	0.950				0.458	
Satd. Flow (perm)	1787	1652	1783	1676	894	1997
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		81		79		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Confl. Peds. (#/hr)				2	2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	6%	0%	0%	1%
Adj. Flow (vph)	7	81	413	79	156	119
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	81	413	79	156	119
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex



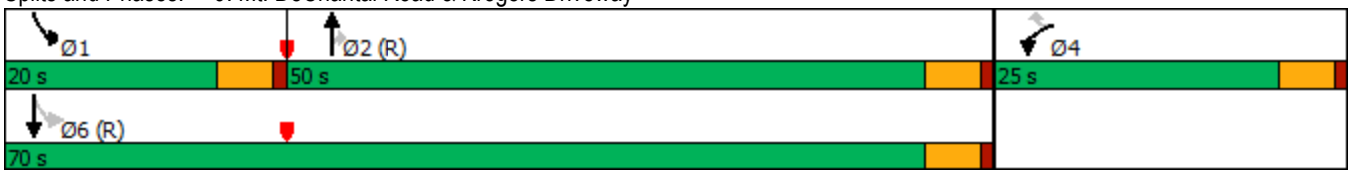
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	50.0	50.0	20.0	70.0
Total Split (%)	26.3%	26.3%	52.6%	52.6%	21.1%	73.7%
Maximum Green (s)	20.0	20.0	45.0	45.0	15.0	65.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.7	8.7	67.6	67.6	78.8	79.8
Actuated g/C Ratio	0.09	0.09	0.71	0.71	0.83	0.84
v/c Ratio	0.04	0.36	0.33	0.07	0.19	0.07
Control Delay	38.7	14.0	7.0	1.6	0.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	14.0	7.0	1.6	0.8	0.4
LOS	D	B	A	A	A	A
Approach Delay	16.0		6.1			0.6
Approach LOS	B		A			A
Queue Length 50th (ft)	4	0	86	0	2	1
Queue Length 95th (ft)	16	41	157	15	m3	m2
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	376	411	1267	1214	893	1678
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.20	0.33	0.07	0.17	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 95			
Offset: 90 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 43.7%		ICU Level of Service A	

Analysis Period (min) 15

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	72	368	70	139	106
Future Volume (veh/h)	6	72	368	70	139	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1952	1805	1970	1970	1954
Adj Flow Rate, veh/h	7	81	413	79	156	119
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	6	0	0	1
Cap, veh/h	118	109	1308	1208	785	1620
Arrive On Green	0.07	0.07	0.72	0.72	0.09	1.00
Sat Flow, veh/h	1787	1654	1805	1667	1876	1954
Grp Volume(v), veh/h	7	81	413	79	156	119
Grp Sat Flow(s),veh/h/ln	1787	1654	1805	1667	1876	1954
Q Serve(g_s), s	0.3	4.6	7.8	1.3	1.8	0.0
Cycle Q Clear(g_c), s	0.3	4.6	7.8	1.3	1.8	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	118	109	1308	1208	785	1620
V/C Ratio(X)	0.06	0.74	0.32	0.07	0.20	0.07
Avail Cap(c_a), veh/h	376	348	1308	1208	984	1620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	43.6	4.7	3.8	2.6	0.0
Incr Delay (d2), s/veh	0.4	19.0	0.6	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.7	0.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.1	62.6	5.3	3.9	2.7	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	88		492			275
Approach Delay, s/veh	61.0		5.1			1.6
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	73.8		11.3		83.7
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	45.0		20.0		65.0
Max Q Clear Time (g_c+I1), s	3.8	9.8		6.6		2.0
Green Ext Time (p_c), s	0.2	6.6		0.4		1.5

Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	309	42	760	369	0	0
Future Volume (vph)	309	42	760	369	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.982					
Flt Protected				0.967		
Satd. Flow (prot)	2988	0	0	3023	0	0
Flt Permitted				0.967		
Satd. Flow (perm)	2988	0	0	3023	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	7%	0%	3%	4%	0%	0%
Adj. Flow (vph)	355	48	874	424	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	1298	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	309	42	760	369	0	0
Future Volume (Veh/h)	309	42	760	369	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	355	48	874	424	0	0
Pedestrians					2	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.75	
vC, conflicting volume			357		2341	204
vC1, stage 1 conf vol					381	
vC2, stage 2 conf vol					1960	
vCu, unblocked vol			357		2124	204
tC, single (s)			4.2		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			27		100	100
cM capacity (veh/h)			1191		29	809

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	237	166	1015	283
Volume Left	0	0	874	0
Volume Right	0	48	0	0
cSH	1700	1700	1191	1700
Volume to Capacity	0.14	0.10	0.73	0.17
Queue Length 95th (ft)	0	0	176	0
Control Delay (s)	0.0	0.0	15.4	0.0
Lane LOS			C	
Approach Delay (s)	0.0		12.0	
Approach LOS				

Intersection Summary			
Average Delay	9.2		
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	58	4	185	60	8	252
Future Volume (vph)	58	4	185	60	8	252
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992		0.967			
Flt Protected	0.955					0.998
Satd. Flow (prot)	1586	0	1608	0	0	1562
Flt Permitted	0.955					0.998
Satd. Flow (perm)	1586	0	1608	0	0	1562
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	3%	4%	0%	3%
Adj. Flow (vph)	63	4	201	65	9	274
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	0	266	0	0	283
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	58	4	185	60	8	252
Future Vol, veh/h	58	4	185	60	8	252
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	4	0	3
Mvmt Flow	63	4	201	65	9	274

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	526	234	0	0	266	0
Stage 1	234	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	472	794	-	-	1310	-
Stage 1	779	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	468	794	-	-	1310	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	481	1310	-
HCM Lane V/C Ratio	-	-	0.14	0.007	-
HCM Control Delay (s)	-	-	13.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	96	5	384	230	13	575
Future Volume (vph)	96	5	384	230	13	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		475	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.359	
Satd. Flow (perm)	1770	1583	1872	1591	675	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		6		256		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	107	6	427	256	14	639
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	6	427	256	14	639
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	12.0	22.5	22.5	12.0	22.5
Total Split (s)	23.0	12.0	55.0	23.0	12.0	67.0
Total Split (%)	25.6%	13.3%	61.1%	25.6%	13.3%	74.4%
Maximum Green (s)	18.0	7.0	50.0	18.0	7.0	62.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	8.2	19.4	19.9	37.9	21.5	21.5
Actuated g/C Ratio	0.20	0.48	0.50	0.94	0.53	0.53
v/c Ratio	0.30	0.01	0.46	0.17	0.03	0.64
Control Delay	17.9	6.0	9.8	0.6	4.4	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	6.0	9.8	0.6	4.4	9.9
LOS	B	A	A	A	A	A
Approach Delay	17.3		6.4			9.8
Approach LOS	B		A			A
Queue Length 50th (ft)	18	0	45	0	1	79
Queue Length 95th (ft)	68	6	175	13	6	176
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				475	300	
Base Capacity (vph)	827	820	1827	1546	563	1881
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.01	0.23	0.17	0.02	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 40.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Bethany Pike & Site Dwy

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	96	5	384	230	13	575
Future Volume (veh/h)	96	5	384	230	13	575
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	107	6	427	256	14	639
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	181	190	723	777	432	1099
Arrive On Green	0.10	0.10	0.38	0.38	0.02	0.56
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	107	6	427	256	14	639
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	1.7	0.1	5.4	2.9	0.1	6.4
Cycle Q Clear(g_c), s	1.7	0.1	5.4	2.9	0.1	6.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	181	190	723	777	432	1099
V/C Ratio(X)	0.59	0.03	0.59	0.33	0.03	0.58
Avail Cap(c_a), veh/h	1072	983	3191	2869	832	4039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	11.6	7.4	4.8	5.3	4.2
Incr Delay (d2), s/veh	3.0	0.1	0.8	0.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.4	0.7	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.9	11.7	8.2	5.0	5.3	4.7
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	113		683			653
Approach Delay, s/veh	15.7		7.0			4.7
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.5	16.3			21.9	8.0
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	50.0			62.0	18.0
Max Q Clear Time (g_c+I1), s	2.1	7.4			8.4	3.7
Green Ext Time (p_c), s	0.0	4.0			5.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	5	13	60	2	6
Future Volume (vph)	63	5	13	60	2	6
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989				0.895	
Flt Protected				0.991	0.989	
Satd. Flow (prot)	1648	0	0	1627	1475	0
Flt Permitted				0.991	0.989	
Satd. Flow (perm)	1648	0	0	1627	1475	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	6	14	67	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	0	81	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

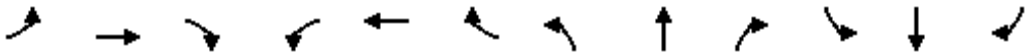
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	5	13	60	2	6
Future Vol, veh/h	63	5	13	60	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	6	14	67	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	168	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	822	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	814	989
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	920	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	939	-	-	1523	-
HCM Lane V/C Ratio	0.009	-	-	0.009	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	552	382	9	5	467	340	185	48	59	336	5	627
Future Volume (vph)	552	382	9	5	467	340	185	48	59	336	5	627
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00				0.98
Frt		0.996			0.937			0.973				0.850
Flt Protected	0.950							0.969			0.953	
Satd. Flow (prot)	1760	1810	0	0	3297	0	0	1718	0	0	1811	1553
Flt Permitted	0.118				0.952			0.394			0.564	
Satd. Flow (perm)	219	1810	0	0	3139	0	0	697	0	0	1072	1528
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			152			12				77
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			1	1			9					9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	2%	1%	1%	0%	0%	1%	0%	5%
Adj. Flow (vph)	594	411	10	5	502	366	199	52	63	361	5	674
Shared Lane Traffic (%)												
Lane Group Flow (vph)	594	421	0	0	873	0	0	314	0	0	366	674
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												



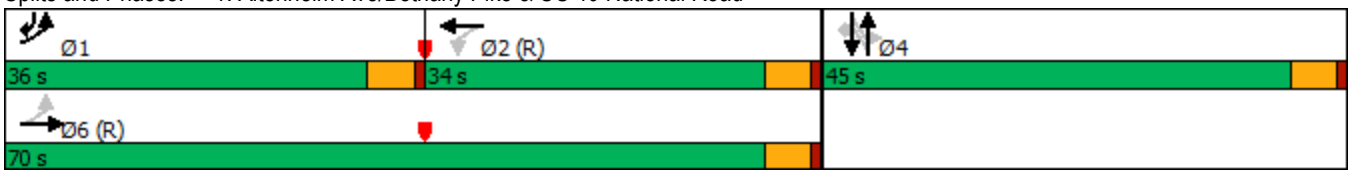
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	15.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	15.0
Total Split (s)	36.0	70.0		34.0	34.0		45.0	45.0		45.0	45.0	36.0
Total Split (%)	31.3%	60.9%		29.6%	29.6%		39.1%	39.1%		39.1%	39.1%	31.3%
Maximum Green (s)	31.0	65.0		29.0	29.0		40.0	40.0		40.0	40.0	31.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag							Lead
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Act Effct Green (s)	65.0	65.0			29.0			40.0			40.0	71.0
Actuated g/C Ratio	0.57	0.57			0.25			0.35			0.35	0.62
v/c Ratio	1.10	0.41			0.96			1.26			0.98	0.69
Control Delay	92.3	19.4			58.0			176.2			81.1	14.7
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	92.3	19.4			58.0			176.2			81.1	14.7
LOS	F	B			E			F			F	B
Approach Delay		62.1			58.0			176.2			38.1	
Approach LOS		E			E			F			D	
Queue Length 50th (ft)	~454	257			287			~287			266	236
Queue Length 95th (ft)	#679	359			#423			#467			#465	356
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	539	1023			905			250			372	979
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	1.10	0.41			0.96			1.26			0.98	0.69

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 70 (61%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 64.3		Intersection LOS: E	
Intersection Capacity Utilization 92.6%		ICU Level of Service F	
Analysis Period (min) 15			

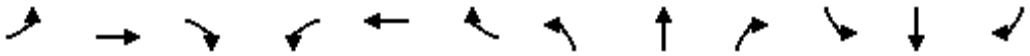
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support Non-NEMA phasing.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	343	0	0	323	10	1	0	0	6	0	185
Future Volume (vph)	236	343	0	0	323	10	1	0	0	6	0	185
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996						0.869	
Flt Protected	0.950							0.950			0.998	
Satd. Flow (prot)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Flt Permitted	0.950							0.950			0.998	
Satd. Flow (perm)	1569	1708	0	0	1637	0	0	1812	0	0	1405	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	268	390	0	0	367	11	1	0	0	7	0	210
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	390	0	0	378	0	0	1	0	0	217	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

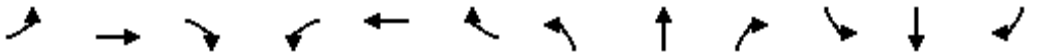
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	236	343	0	0	323	10	1	0	0	6	0	185
Future Vol, veh/h	236	343	0	0	323	10	1	0	0	6	0	185
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	268	390	0	0	367	11	1	0	0	7	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	378	0	0	390	0	0	1404	1304	390	1299	1299	373
Stage 1	-	-	-	-	-	-	926	926	-	373	373	-
Stage 2	-	-	-	-	-	-	478	378	-	926	926	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.12
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1192	-	-	1180	-	-	101	140	649	150	175	680
Stage 1	-	-	-	-	-	-	293	316	-	665	635	-
Stage 2	-	-	-	-	-	-	543	593	-	342	369	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1180	-	-	58	109	649	124	136	680
Mov Cap-2 Maneuver	-	-	-	-	-	-	58	109	-	124	136	-
Stage 1	-	-	-	-	-	-	227	245	-	515	635	-
Stage 2	-	-	-	-	-	-	375	593	-	265	286	-

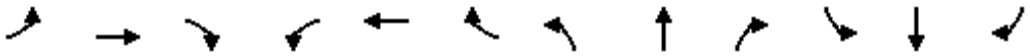
Approach	EB	WB	NB	SB
HCM Control Delay, s	3.6	0	68.3	14.5
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	58	1192	-	-	1180	-	-	596
HCM Lane V/C Ratio	0.02	0.225	-	-	-	-	-	0.364
HCM Control Delay (s)	68.3	8.9	-	-	0	-	-	14.5
HCM Lane LOS	F	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.9	-	-	0	-	-	1.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	1093	12	5	1280	48	5	0	6	62	0	175
Future Volume (vph)	136	1093	12	5	1280	48	5	0	6	62	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00				0.99
Frt		0.998			0.995			0.921				0.850
Flt Protected	0.950			0.950				0.980			0.950	
Satd. Flow (prot)	1752	3532	0	1805	3519	0	0	1982	0	0	2025	1705
Flt Permitted	0.112			0.221				0.897			0.750	
Satd. Flow (perm)	207	3532	0	419	3519	0	0	1813	0	0	1599	1681
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			114				170
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		16	16		1	1					1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	0%	0%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	149	1201	13	5	1407	53	5	0	7	68	0	192
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	1214	0	5	1460	0	0	12	0	0	68	192
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	13.0	82.0					18.0	18.0		18.0	18.0	18.0
Total Split (%)	11.3%	71.3%					15.7%	15.7%		15.7%	15.7%	15.7%
Maximum Green (s)	8.0	77.0					13.0	13.0		13.0	13.0	13.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Act Effct Green (s)	77.0	77.0		79.6	79.6			13.0			13.0	13.0
Actuated g/C Ratio	0.67	0.67		0.69	0.69			0.11			0.11	0.11
v/c Ratio	0.63	0.51		0.02	0.60			0.04			0.38	0.56
Control Delay	20.3	10.6		0.2	1.2			0.3			54.0	17.0
Queue Delay	0.0	0.0		0.0	0.2			0.0			0.0	0.0
Total Delay	20.3	10.6		0.2	1.4			0.3			54.0	17.0
LOS	C	B		A	A			A			D	B
Approach Delay		11.6			1.4			0.3			26.7	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	30	283		0	8			0			47	15
Queue Length 95th (ft)	m52	345		m0	6			0			94	87
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	246	2365		289	2438			306			180	340
Starvation Cap Reductn	0	0		0	265			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.61	0.51		0.02	0.67			0.04			0.38	0.56

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 64.5%		ICU Level of Service C	

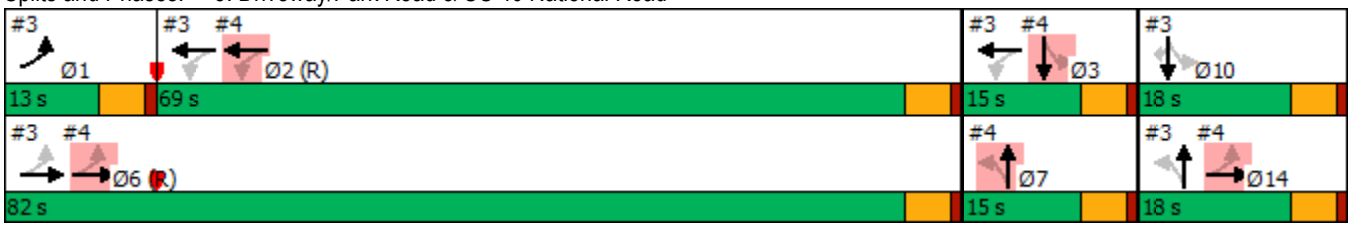
Lane Group	Ø2	Ø3	Ø7
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	2	3	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0
Total Split (s)	69.0	15.0	15.0
Total Split (%)	60%	13%	13%
Maximum Green (s)	64.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	5.0	4.0	4.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Analysis Period (min) 15

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1095	63	39	1254	13	45	0	35	7	1	30
Future Volume (vph)	3	1095	63	39	1254	13	45	0	35	7	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.998			0.941			0.894	
Flt Protected				0.950				0.973			0.991	
Satd. Flow (prot)	0	3511	0	1770	3532	0	0	1697	0	0	1650	0
Flt Permitted		0.953		0.062				0.851			0.942	
Satd. Flow (perm)	0	3346	0	115	3532	0	0	1484	0	0	1569	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			1			114			33	
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			3.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	3	1203	69	43	1378	14	49	0	38	8	1	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1275	0	43	1392	0	0	87	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6 14			2			7			3	

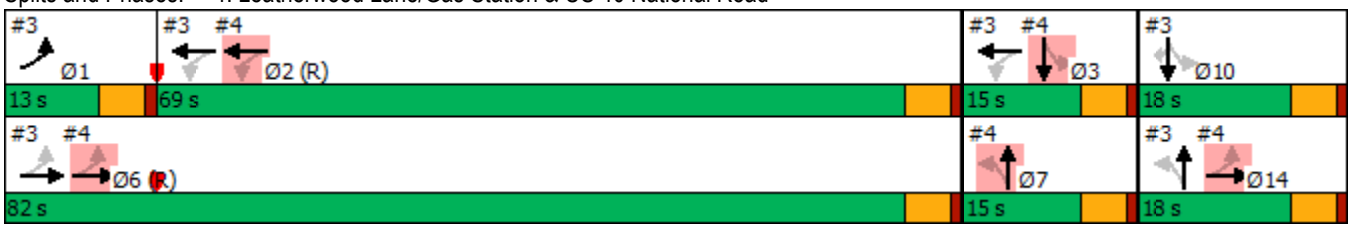
Lane Group	Ø1	Ø6	Ø10	Ø14
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				
Protected Phases	1	6	10	14

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				69.0	69.0		15.0	15.0		15.0	15.0	
Total Split (%)				60.0%	60.0%		13.0%	13.0%		13.0%	13.0%	
Maximum Green (s)				64.0	64.0		10.0	10.0		10.0	10.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		95.0		64.6	64.6			10.0			10.0	
Actuated g/C Ratio		0.83		0.56	0.56			0.09			0.09	
v/c Ratio		0.46		0.67	0.70			0.37			0.25	
Control Delay		1.4		49.5	17.1			9.1			24.8	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.4		49.5	17.1			9.1			24.8	
LOS		A		D	B			A			C	
Approach Delay		1.4			18.1			9.1			24.8	
Approach LOS		A			B			A			C	
Queue Length 50th (ft)		11		22	412			0			6	
Queue Length 95th (ft)		0		m32	m397			30			42	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2767		64	1985			233			166	
Starvation Cap Reductn		239		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.50		0.67	0.70			0.37			0.25	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 10.4 Intersection LOS: B
Intersection Capacity Utilization 54.7% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



Lane Group	Ø1	Ø6	Ø10	Ø14
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	12.0
Total Split (s)	13.0	82.0	18.0	18.0
Total Split (%)	11%	71%	16%	16%
Maximum Green (s)	8.0	77.0	13.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	2.0	5.0	4.0	4.0
Recall Mode	None	C-Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.

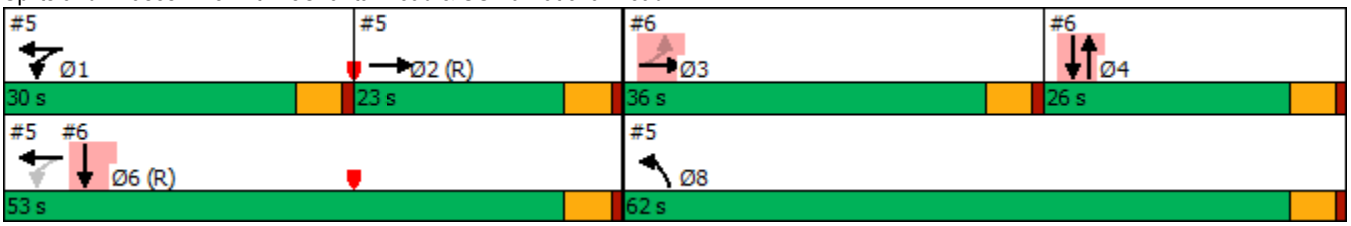
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	265	152	370	1107	396	0			
Future Volume (vph)	265	152	370	1107	396	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.945								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3157	0	1636	3455	3240	0			
Flt Permitted			0.174		0.950				
Satd. Flow (perm)	3157	0	300	3455	3240	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	84								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Heavy Vehicles (%)	3%	7%	3%	1%	5%	0%			
Adj. Flow (vph)	298	171	416	1244	445	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	469	0	416	1244	445	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	23.0		30.0		62.0		36.0	26.0	53.0
Total Split (%)	20.0%		26.1%		53.9%		31%	23%	46%
Maximum Green (s)	18.0		25.0		57.0		31.0	21.0	48.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	18.0		48.0	48.0	57.0				
Actuated g/C Ratio	0.16		0.42	0.42	0.50				
v/c Ratio	0.83		1.00	0.86	0.28				
Control Delay	52.3		60.1	23.4	8.5				
Queue Delay	0.0		0.0	0.0	9.7				
Total Delay	52.3		60.1	23.4	18.2				
LOS	D		E	C	B				
Approach Delay	52.3			32.6	18.2				
Approach LOS	D			C	B				
Queue Length 50th (ft)	148		~207	475	34				
Queue Length 95th (ft)	#224		#453	535	m45				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	564		415	1442	1605				
Starvation Cap Reductn	0		0	0	1120				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.83		1.00	0.86	0.92				

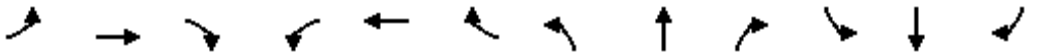
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 75 (65%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 33.7		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

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

Splits and Phases: 5: Mt. DeChantal Road & US 40 National Road

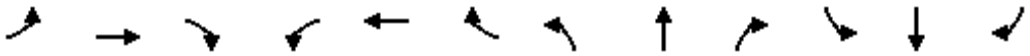


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	695	133	0	0	0	0	325	357	0	522	0
Future Volume (vph)	70	695	133	0	0	0	0	325	357	0	522	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.99				
Frt		0.978						0.921				
Flt Protected		0.996										
Satd. Flow (prot)	0	3485	0	0	0	0	0	3304	0	0	2101	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3483	0	0	0	0	0	3304	0	0	2101	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17						212				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)	4		4	4		4	7		5	5		7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	1%	0%	0%	0%	0%	0%	5%	1%	0%	2%	0%
Adj. Flow (vph)	74	732	140	0	0	0	0	342	376	0	549	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	946	0	0	0	0	0	718	0	0	549	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	36.0	36.0						26.0				
Total Split (%)	31.3%	31.3%						22.6%				
Maximum Green (s)	31.0	31.0						21.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		31.0						21.0			74.0	
Actuated g/C Ratio		0.27						0.18			0.64	
v/c Ratio		0.99						0.93			0.41	
Control Delay		69.5						47.9			2.4	
Queue Delay		0.7						0.9			10.2	
Total Delay		70.2						48.8			12.6	
LOS		E						D			B	
Approach Delay		70.2						48.8			12.6	
Approach LOS		E						D			B	
Queue Length 50th (ft)		363						202			18	
Queue Length 95th (ft)		#508						#307			m38	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		951						776			1351	
Starvation Cap Reductn		0						0			767	
Spillback Cap Reductn		3						9			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.00						0.94			0.94	

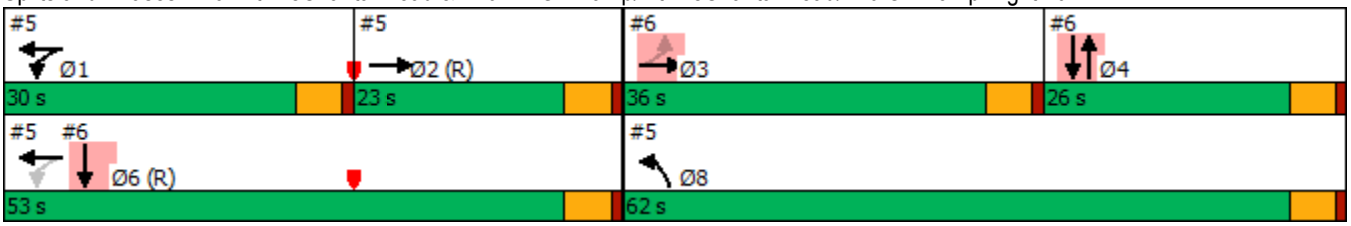
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 75 (65%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 49.0		Intersection LOS: D	
Intersection Capacity Utilization 64.7%		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.			

Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	30.0	23.0	53.0	62.0
Total Split (%)	26%	20%	46%	54%
Maximum Green (s)	25.0	18.0	48.0	57.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

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

Splits and Phases: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



HCM 6th Edition methodology does not support clustered intersections.

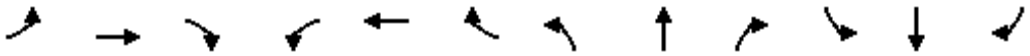
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	265	0	0	1477	0	1052
Future Volume (vph)	265	0	0	1477	0	1052
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3106	0	0	4398	0	2543
Flt Permitted						
Satd. Flow (perm)	3106	0	0	4398	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	0%	2%	0%	1%
Adj. Flow (vph)	285	0	0	1588	0	1131
Shared Lane Traffic (%)						
Lane Group Flow (vph)	285	0	0	1588	0	1131
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	265	0	0	1477	0	1052
Future Volume (Veh/h)	265	0	0	1477	0	1052
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	285	0	0	1588	0	1131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked					0.89	
vC, conflicting volume			285		814	142
vC1, stage 1 conf vol					285	
vC2, stage 2 conf vol					529	
vCu, unblocked vol			285		375	142
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			1289		687	882

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	142	142	529	529	529	566	566
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	566	566
cSH	1700	1700	1700	1700	1700	882	882
Volume to Capacity	0.08	0.08	0.31	0.31	0.31	0.64	0.64
Queue Length 95th (ft)	0	0	0	0	0	119	119
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	16.1	16.1
Lane LOS						C	C
Approach Delay (s)	0.0		0.0			16.1	
Approach LOS						C	

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	179	95	479	0	0	358	296
Future Volume (vph)	0	0	0	2	0	179	95	479	0	0	358	296
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1519	1623	1643	0	0	1527	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)	6					6			2	2		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	4%	4%
Adj. Flow (vph)	0	0	0	2	0	188	100	504	0	0	377	312
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	188	100	504	0	0	689	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.5

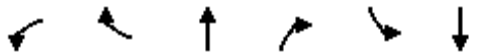
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	179	95	479	0	0	358	296
Future Vol, veh/h	0	0	0	2	0	179	95	479	0	0	358	296
Conflicting Peds, #/hr	6	0	0	0	0	6	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	2	0	4	0	0	4	4
Mvmt Flow	0	0	0	2	0	188	100	504	0	0	377	312

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	1237	-	510	689	0	-	-	-	0	
Stage 1	704	-	-	-	-	-	-	-	-	
Stage 2	533	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.12	4.1	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.318	2.2	-	-	-	-	-	
Pot Cap-1 Maneuver	210	0	571	915	-	0	0	-	-	
Stage 1	514	0	-	-	-	0	0	-	-	
Stage 2	610	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	187	0	568	915	-	-	-	-	-	
Mov Cap-2 Maneuver	187	0	-	-	-	-	-	-	-	
Stage 1	458	0	-	-	-	-	-	-	-	
Stage 2	610	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	14.6	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	915	-	187	568	-	-
HCM Lane V/C Ratio	0.109	-	0.011	0.332	-	-
HCM Control Delay (s)	9.4	-	24.5	14.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0	1.4	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	152	402	135	232	97
Future Volume (vph)	10	152	402	135	232	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1818	1697	1856	1977
Flt Permitted	0.950				0.446	
Satd. Flow (perm)	1787	1620	1818	1697	871	1977
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		167		140		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	2%	4%	1%	0%	2%
Adj. Flow (vph)	11	167	442	148	255	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	167	442	148	255	107
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

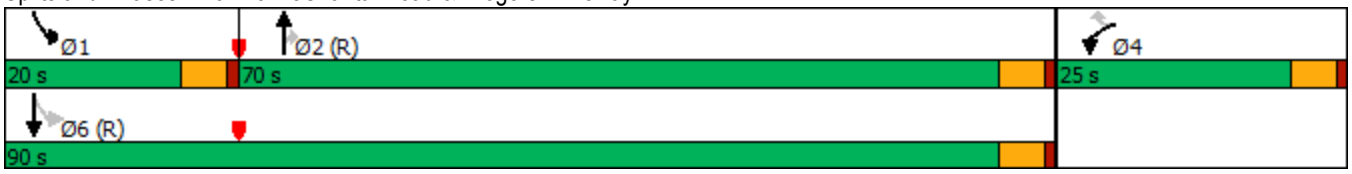


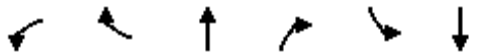
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	2.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.6	9.6	82.6	82.6	95.4	95.4
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.07	0.58	0.34	0.12	0.32	0.07
Control Delay	47.7	15.8	7.5	1.5	6.8	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.8	7.5	1.5	6.8	5.0
LOS	D	B	A	A	A	A
Approach Delay	17.7		6.0			6.2
Approach LOS	B		A			A
Queue Length 50th (ft)	8	0	99	1	70	23
Queue Length 95th (ft)	26	63	198	24	m124	m52
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	419	1306	1258	850	1640
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.40	0.34	0.12	0.30	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 10 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 7.9		Intersection LOS: A	
Intersection Capacity Utilization 50.7%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	152	402	135	232	97
Future Volume (veh/h)	10	152	402	135	232	97
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1835	1954	1970	1939
Adj Flow Rate, veh/h	11	167	442	148	255	107
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	2	4	1	0	2
Cap, veh/h	219	199	1262	1140	686	1533
Arrive On Green	0.12	0.12	0.69	0.69	0.10	1.00
Sat Flow, veh/h	1787	1628	1835	1656	1876	1939
Grp Volume(v), veh/h	11	167	442	148	255	107
Grp Sat Flow(s),veh/h/ln	1787	1628	1835	1656	1876	1939
Q Serve(g_s), s	0.6	11.5	11.4	3.5	4.6	0.0
Cycle Q Clear(g_c), s	0.6	11.5	11.4	3.5	4.6	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	219	199	1262	1140	686	1533
V/C Ratio(X)	0.05	0.84	0.35	0.13	0.37	0.07
Avail Cap(c_a), veh/h	311	283	1262	1140	820	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	49.4	7.4	6.1	4.6	0.0
Incr Delay (d2), s/veh	0.2	20.5	0.8	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.9	4.5	1.3	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	69.9	8.1	6.4	4.7	0.1
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	178		590			362
Approach Delay, s/veh	68.3		7.7			3.4
Approach LOS	E		A			A
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.8	84.1		19.1		95.9
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	6.6	13.4		13.5		2.0
Green Ext Time (p_c), s	0.3	8.4		0.6		1.4
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	396	79	845	584	0	0
Future Volume (vph)	396	79	845	584	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.975					
Flt Protected				0.971		
Satd. Flow (prot)	3004	0	0	3063	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3004	0	0	3063	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		3	3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	2%	3%	0%	0%
Adj. Flow (vph)	435	87	929	642	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	522	0	0	1571	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	396	79	845	584	0	0
Future Volume (Veh/h)	396	79	845	584	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	435	87	929	642	0	0
Pedestrians					3	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.67	
vC, conflicting volume			438		2660	264
vC1, stage 1 conf vol					482	
vC2, stage 2 conf vol					2179	
vCu, unblocked vol			438		2497	264
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			17		100	100
cM capacity (veh/h)			1118		14	740

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	290	232	1143	428
Volume Left	0	0	929	0
Volume Right	0	87	0	0
cSH	1700	1700	1118	1700
Volume to Capacity	0.17	0.14	0.83	0.25
Queue Length 95th (ft)	0	0	257	0
Control Delay (s)	0.0	0.0	21.5	0.0
Lane LOS			C	
Approach Delay (s)	0.0		15.6	
Approach LOS				

Intersection Summary			
Average Delay	11.7		
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	87	11	261	73	9	242
Future Volume (vph)	87	11	261	73	9	242
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.971			
Flt Protected	0.958					0.998
Satd. Flow (prot)	1565	0	1667	0	0	1548
Flt Permitted	0.958					0.998
Satd. Flow (perm)	1565	0	1667	0	0	1548
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	0%	0%	0%	0%	4%
Adj. Flow (vph)	99	13	297	83	10	275
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	380	0	0	285
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

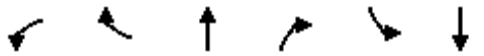
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	11	261	73	9	242
Future Vol, veh/h	87	11	261	73	9	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	0	0	4
Mvmt Flow	99	13	297	83	10	275

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	634	339	0	0	380	0
Stage 1	339	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	7.01	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6.01	-	-	-	-	-
Critical Hdwy Stg 2	6.01	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	400	688	-	-	1190	-
Stage 1	684	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	396	688	-	-	1190	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	416	1190	-
HCM Lane V/C Ratio	-	-	0.268	0.009	-
HCM Control Delay (s)	-	-	16.8	8.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	394	22	558	296	17	492
Future Volume (vph)	394	22	558	296	17	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		400	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.158	
Satd. Flow (perm)	1770	1583	1872	1591	297	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		24		329		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	438	24	620	329	19	547
Shared Lane Traffic (%)						
Lane Group Flow (vph)	438	24	620	329	19	547
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	12.0	23.0	23.0	12.0	23.0
Total Split (s)	34.0	12.0	44.0	34.0	12.0	56.0
Total Split (%)	37.8%	13.3%	48.9%	37.8%	13.3%	62.2%
Maximum Green (s)	29.0	7.0	39.0	29.0	7.0	51.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	22.7	35.0	28.8	60.5	34.2	34.2
Actuated g/C Ratio	0.33	0.51	0.42	0.89	0.50	0.50
v/c Ratio	0.75	0.03	0.79	0.23	0.06	0.58
Control Delay	32.5	6.0	27.1	0.6	9.1	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	6.0	27.1	0.6	9.1	14.4
LOS	C	A	C	A	A	B
Approach Delay	31.2		17.9			14.2
Approach LOS	C		B			B
Queue Length 50th (ft)	190	0	262	0	4	159
Queue Length 95th (ft)	#362	14	425	11	14	263
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				400	300	
Base Capacity (vph)	859	854	1193	1457	323	1425
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.03	0.52	0.23	0.06	0.38

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 68.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 20.0		Intersection LOS: B	
Intersection Capacity Utilization 59.5%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Bethany Pike & Site Dwy

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	394	22	558	296	17	492
Future Volume (veh/h)	394	22	558	296	17	492
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	438	24	620	329	19	547
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	517	497	796	1144	256	1032
Arrive On Green	0.29	0.29	0.42	0.42	0.02	0.53
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	438	24	620	329	19	547
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	12.9	0.6	15.6	4.2	0.3	10.2
Cycle Q Clear(g_c), s	12.9	0.6	15.6	4.2	0.3	10.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	517	497	796	1144	256	1032
V/C Ratio(X)	0.85	0.05	0.78	0.29	0.07	0.53
Avail Cap(c_a), veh/h	929	863	1340	1605	447	1788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	13.3	14.0	3.0	10.6	8.5
Incr Delay (d2), s/veh	3.9	0.0	1.7	0.1	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.2	6.0	2.6	0.1	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.5	13.3	15.7	3.1	10.7	9.0
LnGrp LOS	C	B	B	A	B	A
Approach Vol, veh/h	462		949			566
Approach Delay, s/veh	22.0		11.3			9.0
Approach LOS	C		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.3	28.2			34.4	21.1
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	39.0			51.0	29.0
Max Q Clear Time (g_c+I1), s	2.3	17.6			12.2	14.9
Green Ext Time (p_c), s	0.0	5.6			4.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	75	7	17	90	9	22
Future Volume (vph)	75	7	17	90	9	22
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.905	
Flt Protected				0.992	0.986	
Satd. Flow (prot)	1647	0	0	1629	1487	0
Flt Permitted				0.992	0.986	
Satd. Flow (perm)	1647	0	0	1629	1487	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	8	19	100	10	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	0	0	119	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.0%		ICU Level of Service A	
Analysis Period (min) 15			

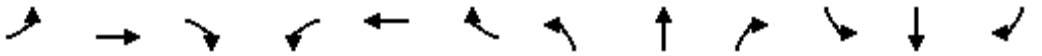
Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	7	17	90	9	22
Future Vol, veh/h	75	7	17	90	9	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	8	19	100	10	24

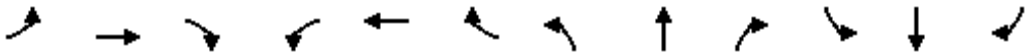
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	91	0	225	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1504	-	763	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	889	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1504	-	753	971
Mov Cap-2 Maneuver	-	-	-	-	753	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	896	-	-	1504	-
HCM Lane V/C Ratio	0.038	-	-	0.013	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	477	323	5	9	378	307	51	23	35	289	5	468
Future Volume (vph)	477	323	5	9	378	307	51	23	35	289	5	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			2%			7%			-2%	
Storage Length (ft)	0		0	0		0	0		0	0		130
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.998			0.934			0.957				0.850
Flt Protected	0.950				0.999			0.977			0.953	
Satd. Flow (prot)	1778	1849	0	0	3288	0	0	1714	0	0	1829	1615
Flt Permitted	0.181				0.949			0.592			0.646	
Satd. Flow (perm)	339	1849	0	0	3123	0	0	1039	0	0	1240	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			169			22				143
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		879			1354			343			3796	
Travel Time (s)		17.1			26.4			9.4			86.3	
Confl. Peds. (#/hr)			6	6								
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	507	344	5	10	402	327	54	24	37	307	5	498
Shared Lane Traffic (%)												
Lane Group Flow (vph)	507	349	0	0	739	0	0	115	0	0	312	498
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.02	1.02	1.02	1.01	1.01	1.01	1.05	1.05	1.05	0.99	0.99	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												

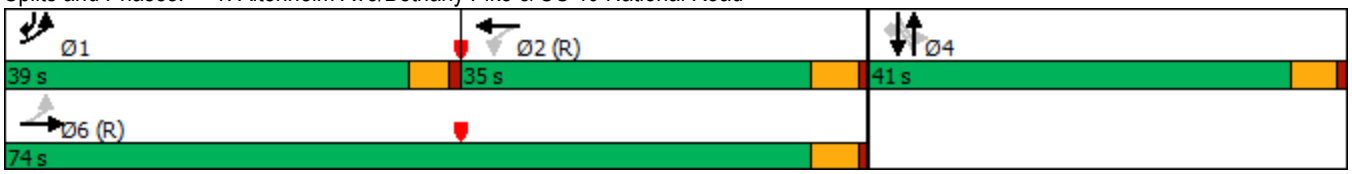


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Reserved	NA		Perm	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	1	6			2			4			4	1
Permitted Phases	6			2			4			4		4
Detector Phase	1	6		2	2		4	4		4	4	1
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	20.0		20.0	20.0		17.0	17.0		17.0	17.0	9.5
Total Split (s)	39.0	74.0		35.0	35.0		41.0	41.0		41.0	41.0	39.0
Total Split (%)	33.9%	64.3%		30.4%	30.4%		35.7%	35.7%		35.7%	35.7%	33.9%
Maximum Green (s)	34.5	69.0		30.0	30.0		36.0	36.0		36.0	36.0	34.5
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	0.0
Total Lost Time (s)	4.5	5.0			5.0			5.0			5.0	4.5
Lead/Lag	Lead			Lag	Lag							Lead
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Vehicle Extension (s)	3.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	3.0
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	None
Act Effct Green (s)	72.3	71.8			36.7			33.2			33.2	68.8
Actuated g/C Ratio	0.63	0.62			0.32			0.29			0.29	0.60
v/c Ratio	0.85	0.30			0.66			0.37			0.87	0.49
Control Delay	24.8	7.5			30.8			28.7			63.4	9.8
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	24.8	7.5			30.8			28.7			63.4	9.8
LOS	C	A			C			C			E	A
Approach Delay		17.7			30.8			28.7			30.4	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	270	168			210			52			211	111
Queue Length 95th (ft)	#410	236			285			105			#361	178
Internal Link Dist (ft)		799			1274			263			3716	
Turn Bay Length (ft)												130
Base Capacity (vph)	644	1154			1112			340			388	1073
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.79	0.30			0.66			0.34			0.80	0.46

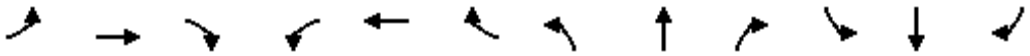
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 61 (53%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Altenheim Ave/Bethany Pike & US 40 National Road



HCM 6th Edition methodology does not support Non-NEMA phasing.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	251	1	0	247	7	0	0	0	7	0	162
Future Volume (vph)	135	251	1	0	247	7	0	0	0	7	0	162
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1900	1700	1700	1700	1700	1700
Lane Width (ft)	11	12	12	12	12	12	16	16	16	11	11	11
Grade (%)		-1%			1%			2%			-1%	
Storage Length (ft)	130		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	160			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.996						0.871	
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Flt Permitted	0.950										0.998	
Satd. Flow (perm)	1569	1690	0	0	1669	0	0	1907	0	0	1436	0
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		747			396			237			1299	
Travel Time (s)		17.0			9.0			6.5			35.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	147	273	1	0	268	8	0	0	0	8	0	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	274	0	0	276	0	0	0	0	0	184	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.15	1.15	1.16	1.16	1.16	0.86	0.99	0.99	1.20	1.20	1.20
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

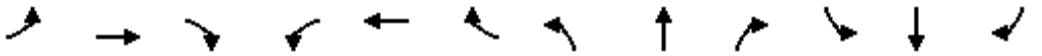
Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	135	251	1	0	247	7	0	0	0	7	0	162
Future Vol, veh/h	135	251	1	0	247	7	0	0	0	7	0	162
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	2	-	-	-1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	147	273	1	0	268	8	0	0	0	8	0	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	276	0	0	274	0	0	928	844	274	840	840	272
Stage 1	-	-	-	-	-	-	568	568	-	272	272	-
Stage 2	-	-	-	-	-	-	360	276	-	568	568	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.9	6.4	6.9	6.3	6.1
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.9	-	5.9	5.3	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1299	-	-	1301	-	-	226	275	758	301	318	777
Stage 1	-	-	-	-	-	-	480	478	-	750	699	-
Stage 2	-	-	-	-	-	-	636	665	-	528	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1299	-	-	1301	-	-	160	244	758	275	282	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	244	-	275	282	-
Stage 1	-	-	-	-	-	-	426	424	-	665	699	-
Stage 2	-	-	-	-	-	-	492	665	-	468	467	-

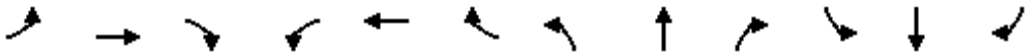
Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0	0	11.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1299	-	-	1301	-	-	722
HCM Lane V/C Ratio	-	0.113	-	-	-	-	-	0.254
HCM Control Delay (s)	0	8.1	-	-	0	-	-	11.7
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.4	-	-	0	-	-	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	957	27	13	888	15	4	0	3	16	2	50
Future Volume (vph)	50	957	27	13	888	15	4	0	3	16	2	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	14
Grade (%)		0%			0%			-4%			2%	
Storage Length (ft)	150		0	0		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00							
Frt		0.996			0.998			0.942				0.850
Flt Protected	0.950			0.950				0.972			0.957	
Satd. Flow (prot)	1805	3555	0	1805	3566	0	0	2011	0	0	2040	1705
Flt Permitted	0.241			0.259				0.875			0.770	
Satd. Flow (perm)	458	3555	0	492	3566	0	0	1810	0	0	1641	1705
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3			114				114
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1133			236			237			1020	
Travel Time (s)		22.1			4.6			6.5			27.8	
Confl. Peds. (#/hr)	1		6	6		1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	54	1040	29	14	965	16	4	0	3	17	2	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	1069	0	14	981	0	0	7	0	0	19	54
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.82	0.97	1.01	0.86	0.93
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	Ø2	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2 3			14			10	
Permitted Phases	6			2 3			14			10		10
Detector Phase	1	6		2 3	2 3		14	14		10	10	10
Switch Phase												
Minimum Initial (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	13.0	20.0					12.0	12.0		12.0	12.0	12.0
Total Split (s)	13.0	81.0					16.0	16.0		16.0	16.0	16.0
Total Split (%)	11.3%	70.4%					13.9%	13.9%		13.9%	13.9%	13.9%
Maximum Green (s)	8.0	76.0					11.0	11.0		11.0	11.0	11.0
Yellow Time (s)	4.0	4.0					4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0					1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	0.0
Total Lost Time (s)	5.0	5.0						5.0			5.0	5.0
Lead/Lag	Lead											
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	2.0	5.0					4.0	4.0		4.0	4.0	4.0
Recall Mode	None	C-Max					None	None		None	None	None
Act Effct Green (s)	76.2	76.2		85.2	85.2			11.0			11.0	11.0
Actuated g/C Ratio	0.66	0.66		0.74	0.74			0.10			0.10	0.10
v/c Ratio	0.15	0.45		0.04	0.37			0.03			0.12	0.20
Control Delay	8.9	12.6		0.6	0.7			0.2			49.7	1.7
Queue Delay	0.0	0.0		0.0	0.1			0.0			0.0	0.0
Total Delay	8.9	12.6		0.6	0.8			0.2			49.7	1.7
LOS	A	B		A	A			A			D	A
Approach Delay		12.4			0.8			0.2			14.2	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	17	230		0	3			0			13	0
Queue Length 95th (ft)	m36	287		m1	11			0			37	0
Internal Link Dist (ft)		1053			156			157			940	
Turn Bay Length (ft)	150											300
Base Capacity (vph)	397	2358		365	2650			276			156	266
Starvation Cap Reductn	0	0		0	518			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.14	0.45		0.04	0.46			0.03			0.12	0.20

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 48.2%		ICU Level of Service A	

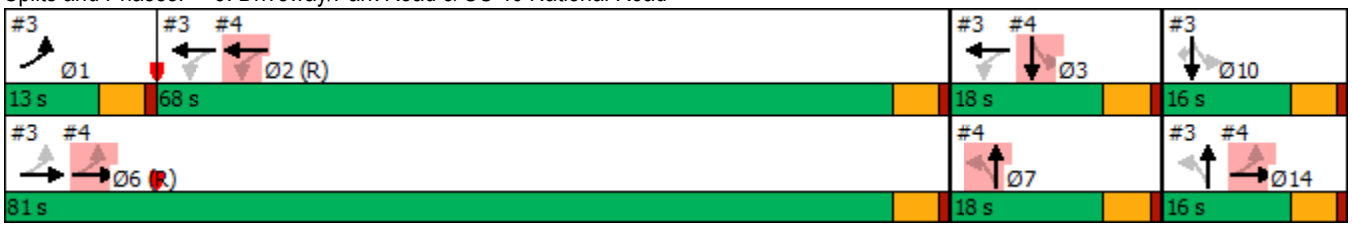
Lane Group	Ø2	Ø3	Ø7
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	2	3	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	15.0	15.0
Total Split (s)	68.0	18.0	18.0
Total Split (%)	59%	16%	16%
Maximum Green (s)	63.0	13.0	13.0
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	5.0	4.0	4.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Analysis Period (min) 15

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

Splits and Phases: 3: Driveway/Park Road & US 40 National Road



HCM 6th Edition methodology does not support clustered intersections.

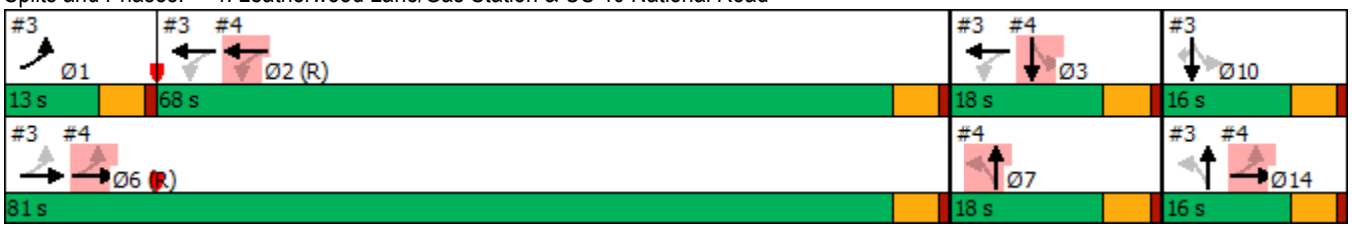
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	925	45	27	844	2	60	1	29	7	0	12
Future Volume (vph)	5	925	45	27	844	2	60	1	29	7	0	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	0		0	105		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993						0.956			0.916	
Flt Protected				0.950				0.968			0.981	
Satd. Flow (prot)	0	3549	0	1787	3574	0	0	1732	0	0	1690	0
Flt Permitted		0.952		0.060				0.788			0.911	
Satd. Flow (perm)	0	3379	0	113	3574	0	0	1410	0	0	1570	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15						17			114	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		236			879			478			156	
Travel Time (s)		4.6			17.1			13.0			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	5	1005	49	29	917	2	65	1	32	8	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1059	0	29	919	0	0	98	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes			Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø1	Ø6	Ø10	Ø14
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		6 14			2			7			3	
Permitted Phases	6 14			2			7			3		
Detector Phase	6 14	6 14		2	2		7	7		3	3	
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)				20.0	20.0		15.0	15.0		15.0	15.0	
Total Split (s)				68.0	68.0		18.0	18.0		18.0	18.0	
Total Split (%)				59.1%	59.1%		15.7%	15.7%		15.7%	15.7%	
Maximum Green (s)				63.0	63.0		13.0	13.0		13.0	13.0	
Yellow Time (s)				4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)				1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				5.0	5.0			5.0			5.0	
Lead/Lag				Lag	Lag							
Lead-Lag Optimize?				Yes	Yes							
Vehicle Extension (s)				5.0	5.0		4.0	4.0		4.0	4.0	
Recall Mode				C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		92.2		67.4	67.4			12.8			12.8	
Actuated g/C Ratio		0.80		0.59	0.59			0.11			0.11	
v/c Ratio		0.39		0.44	0.44			0.57			0.08	
Control Delay		1.2		43.2	17.0			53.8			0.5	
Queue Delay		0.1		0.0	0.0			0.0			0.0	
Total Delay		1.3		43.2	17.0			53.8			0.5	
LOS		A		D	B			D			A	
Approach Delay		1.3			17.8			53.8			0.5	
Approach LOS		A			B			D			A	
Queue Length 50th (ft)		4		16	277			57			0	
Queue Length 95th (ft)		0		m39	346			115			0	
Internal Link Dist (ft)		156			799			398			76	
Turn Bay Length (ft)				105								
Base Capacity (vph)		2713		66	2095			174			278	
Starvation Cap Reductn		368		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.45		0.44	0.44			0.56			0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green, Master Intersection			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: Leatherwood Lane/Gas Station & US 40 National Road



Lane Group	Ø1	Ø6	Ø10	Ø14
Protected Phases	1	6	10	14
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	13.0	20.0	12.0	12.0
Total Split (s)	13.0	81.0	16.0	16.0
Total Split (%)	11%	70%	14%	14%
Maximum Green (s)	8.0	76.0	11.0	11.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead			
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	2.0	5.0	4.0	4.0
Recall Mode	None	C-Max	None	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

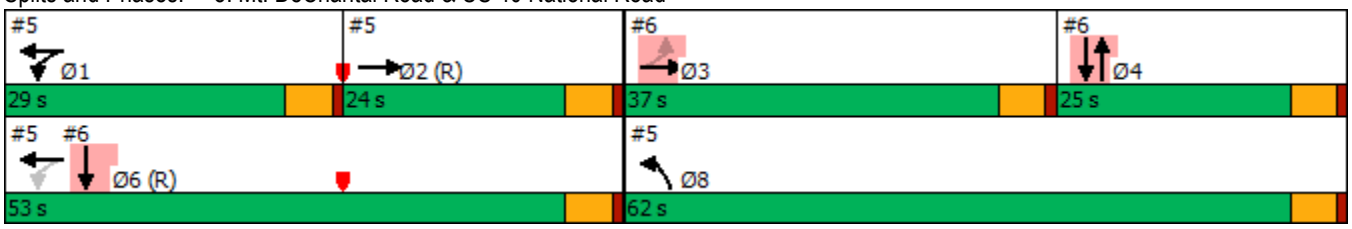
HCM 6th Edition methodology does not support clustered intersections.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Lane Configurations									
Traffic Volume (vph)	204	135	287	704	297	0			
Future Volume (vph)	204	135	287	704	297	0			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	11	11	10	11	11	12			
Grade (%)	0%			0%	-1%				
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00			
Frt	0.940								
Flt Protected			0.950		0.950				
Satd. Flow (prot)	3222	0	1668	3455	3368	0			
Flt Permitted			0.318		0.950				
Satd. Flow (perm)	3222	0	558	3455	3368	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)	117								
Link Speed (mph)	35			35	25				
Link Distance (ft)	562			201	135				
Travel Time (s)	10.9			3.9	3.7				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94			
Heavy Vehicles (%)	1%	3%	1%	1%	1%	0%			
Adj. Flow (vph)	217	144	305	749	316	0			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	361	0	305	749	316	0			
Enter Blocked Intersection	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	10			10	22				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane	Yes								
Headway Factor	1.04	1.04	1.09	1.04	1.04	0.99			
Turning Speed (mph)		9	15		15	9			
Number of Detectors	2		1	2	1				
Detector Template	Thru		Left	Thru	Left				
Leading Detector (ft)	100		20	100	20				
Trailing Detector (ft)	0		0	0	0				
Detector 1 Position(ft)	0		0	0	0				
Detector 1 Size(ft)	6		20	6	20				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel									
Detector 1 Extend (s)	0.0		0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0				
Detector 2 Position(ft)	94			94					
Detector 2 Size(ft)	6			6					
Detector 2 Type	Cl+Ex			Cl+Ex					
Detector 2 Channel									
Detector 2 Extend (s)	0.0			0.0					
Turn Type	NA		pm+pt	NA	Prot				
Protected Phases	2		1	1 6	8		3	4	6
Permitted Phases			1 6						

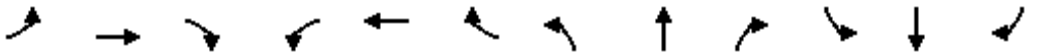
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3	Ø4	Ø6
Detector Phase	2		1	1 6	8				
Switch Phase									
Minimum Initial (s)	5.0		5.0		5.0		5.0	5.0	5.0
Minimum Split (s)	20.0		15.0		17.0		17.0	17.0	20.0
Total Split (s)	24.0		29.0		62.0		37.0	25.0	53.0
Total Split (%)	20.9%		25.2%		53.9%		32%	22%	46%
Maximum Green (s)	19.0		24.0		57.0		32.0	20.0	48.0
Yellow Time (s)	4.0		4.0		4.0		4.0	4.0	4.0
All-Red Time (s)	1.0		1.0		1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0		0.0				
Total Lost Time (s)	5.0		5.0		5.0				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	
Vehicle Extension (s)	5.0		2.5		4.0		4.0	5.0	5.0
Recall Mode	C-Max		None		None		None	None	C-Max
Act Effct Green (s)	22.0		49.5	49.5	55.5				
Actuated g/C Ratio	0.19		0.43	0.43	0.48				
v/c Ratio	0.51		0.67	0.50	0.19				
Control Delay	31.6		17.9	12.2	6.5				
Queue Delay	0.0		0.0	0.0	2.4				
Total Delay	31.6		17.9	12.2	8.9				
LOS	C		B	B	A				
Approach Delay	31.6			13.9	8.9				
Approach LOS	C			B	A				
Queue Length 50th (ft)	87		47	61	22				
Queue Length 95th (ft)	138		65	74	m30				
Internal Link Dist (ft)	482			121	55				
Turn Bay Length (ft)									
Base Capacity (vph)	711		471	1486	1669				
Starvation Cap Reductn	0		0	0	1207				
Spillback Cap Reductn	0		0	0	0				
Storage Cap Reductn	0		0	0	0				
Reduced v/c Ratio	0.51		0.65	0.50	0.68				

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Mt. DeChantal Road & US 40 National Road

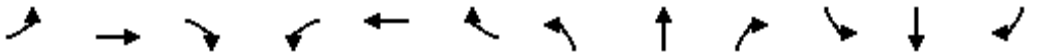


HCM 6th Edition methodology does not support clustered intersections.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	527	109	0	0	0	0	218	325	0	422	0
Future Volume (vph)	79	527	109	0	0	0	0	218	325	0	422	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	13	13	13	12	16	12
Grade (%)		-1%			0%			0%			1%	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor								0.99				
Frt		0.977						0.910				
Flt Protected		0.994										
Satd. Flow (prot)	0	3523	0	0	0	0	0	3333	0	0	2121	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3523	0	0	0	0	0	3333	0	0	2121	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						285				
Link Speed (mph)		35			30			25			25	
Link Distance (ft)		482			215			270			135	
Travel Time (s)		9.4			4.9			7.4			3.7	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%
Adj. Flow (vph)	86	573	118	0	0	0	0	237	353	0	459	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	777	0	0	0	0	0	590	0	0	459	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	0.96	0.96	0.96	1.01	0.85	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2			2	
Detector Template	Left	Thru						Thru			Thru	
Leading Detector (ft)	20	100						100			100	
Trailing Detector (ft)	0	0						0			0	
Detector 1 Position(ft)	0	0						0			0	
Detector 1 Size(ft)	20	6						6			6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0			0.0	
Detector 1 Queue (s)	0.0	0.0						0.0			0.0	
Detector 1 Delay (s)	0.0	0.0						0.0			0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA			NA	

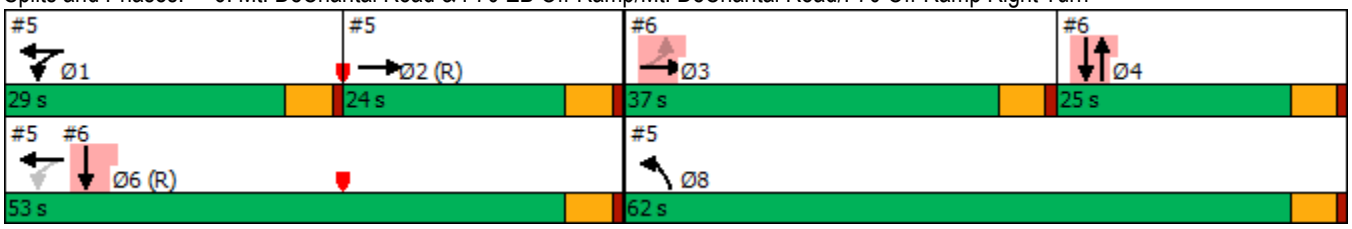
Lane Group	Ø1	Ø2	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Grade (%)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				
Detector 2 Extend (s)				
Turn Type				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		3						4			6 4	
Permitted Phases	3											
Detector Phase	3	3						4			6 4	
Switch Phase												
Minimum Initial (s)	5.0	5.0						5.0				
Minimum Split (s)	17.0	17.0						17.0				
Total Split (s)	37.0	37.0						25.0				
Total Split (%)	32.2%	32.2%						21.7%				
Maximum Green (s)	32.0	32.0						20.0				
Yellow Time (s)	4.0	4.0						4.0				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?	Yes	Yes						Yes				
Vehicle Extension (s)	4.0	4.0						5.0				
Recall Mode	None	None						None				
Act Effct Green (s)		30.5						20.0			74.5	
Actuated g/C Ratio		0.27						0.17			0.65	
v/c Ratio		0.82						0.72			0.33	
Control Delay		46.7						29.3			2.4	
Queue Delay		0.0						0.0			1.1	
Total Delay		46.7						29.3			3.6	
LOS		D						C			A	
Approach Delay		46.7						29.3			3.6	
Approach LOS		D						C			A	
Queue Length 50th (ft)		273						126			22	
Queue Length 95th (ft)		348						173			31	
Internal Link Dist (ft)		402			135			190			55	
Turn Bay Length (ft)												
Base Capacity (vph)		993						823			1361	
Starvation Cap Reductn		0						0			647	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.78						0.72			0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 57 (50%), Referenced to phase 2:EBT and 6:WBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 30.2		Intersection LOS: C	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 6: Mt. DeChantal Road & I-70 EB Off-Ramp/Mt. DeChantal Road/I-70 Off-Ramp Right Turn



Lane Group	Ø1	Ø2	Ø6	Ø8
Protected Phases	1	2	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	20.0	20.0	17.0
Total Split (s)	29.0	24.0	53.0	62.0
Total Split (%)	25%	21%	46%	54%
Maximum Green (s)	24.0	19.0	48.0	57.0
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		
Vehicle Extension (s)	2.5	5.0	5.0	4.0
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

HCM 6th Edition methodology does not support clustered intersections.

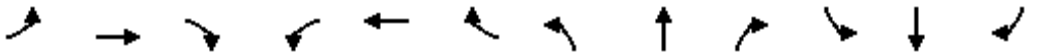
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	204	0	0	991	0	852
Future Volume (vph)	204	0	0	991	0	852
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Storage Length (ft)		0	590		0	0
Storage Lanes		0	1		0	2
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.88
Ped Bike Factor						
Frt						0.850
Flt Protected						
Satd. Flow (prot)	3198	0	0	4442	0	2543
Flt Permitted						
Satd. Flow (perm)	3198	0	0	4442	0	2543
Link Speed (mph)	35			35	35	
Link Distance (ft)	201			1133	215	
Travel Time (s)	3.9			22.1	4.2	
Confl. Peds. (#/hr)		2	2			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	0%	1%	0%	1%
Adj. Flow (vph)	219	0	0	1066	0	916
Shared Lane Traffic (%)						
Lane Group Flow (vph)	219	0	0	1066	0	916
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	1			1	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	1.15	1.15	1.20	1.14	1.14
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	204	0	0	991	0	852
Future Volume (Veh/h)	204	0	0	991	0	852
Sign Control	Free			Free	Yield	
Grade	0%			0%	-2%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	219	0	0	1066	0	916
Pedestrians					2	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)	201			1133		
pX, platoon unblocked						
vC, conflicting volume			221		576	112
vC1, stage 1 conf vol					221	
vC2, stage 2 conf vol					355	
vCu, unblocked vol			221		576	112
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	1
cM capacity (veh/h)			1357		621	922

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1	NE 2
Volume Total	110	110	355	355	355	458	458
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	458	458
cSH	1700	1700	1700	1700	1700	922	922
Volume to Capacity	0.06	0.06	0.21	0.21	0.21	0.50	0.50
Queue Length 95th (ft)	0	0	0	0	0	71	71
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	12.7	12.7
Lane LOS						B	B
Approach Delay (s)	0.0		0.0			12.7	
Approach LOS						B	

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	2	0	166	74	355	0	0	309	222
Future Volume (vph)	0	0	0	2	0	166	74	355	0	0	309	222
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	16	12	14	12	12	12	12	12	12
Grade (%)		1%			-1%			-1%			1%	
Storage Length (ft)	0		0	0		0	170		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt						0.850					0.943	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1839	0	1549	1546	1675	0	0	1579	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1839	0	1549	1546	1675	0	0	1579	0
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		255			201			477			270	
Travel Time (s)		5.8			5.5			13.0			7.4	
Confl. Peds. (#/hr)			1	1			1		3	3		1
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	5%	2%	0%	0%	1%	1%
Adj. Flow (vph)	0	0	0	2	0	175	78	374	0	0	325	234
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	2	0	175	78	374	0	0	559	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		16			16			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	1.16	1.16	0.98	1.15	1.06	1.15	1.15	1.15	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.4

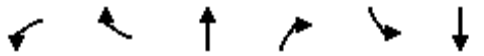
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	166	74	355	0	0	309	222
Future Vol, veh/h	0	0	0	2	0	166	74	355	0	0	309	222
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	3	3	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	170	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	-1	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	5	2	0	0	1	1
Mvmt Flow	0	0	0	2	0	175	78	374	0	0	325	234

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	973	-	374	560	0	-	-	-	0	
Stage 1	530	-	-	-	-	-	-	-	-	
Stage 2	443	-	-	-	-	-	-	-	-	
Critical Hdwy	6.2	-	6.1	4.15	-	-	-	-	-	
Critical Hdwy Stg 1	5.2	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.2	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.5	-	3.3	2.245	-	-	-	-	-	
Pot Cap-1 Maneuver	298	0	684	996	-	0	0	-	-	
Stage 1	612	0	-	-	-	0	0	-	-	
Stage 2	668	0	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	274	0	684	996	-	-	-	-	-	
Mov Cap-2 Maneuver	274	0	-	-	-	-	-	-	-	
Stage 1	564	0	-	-	-	-	-	-	-	
Stage 2	667	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	12.2	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	996	-	274	684	-	-
HCM Lane V/C Ratio	0.078	-	0.008	0.255	-	-
HCM Control Delay (s)	8.9	-	18.2	12.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0	1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	120	292	98	224	57
Future Volume (vph)	7	120	292	98	224	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	14	13	14
Grade (%)	2%		1%			1%
Storage Length (ft)	0	80		120	210	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	1620	1853	1697	1837	2017
Flt Permitted	0.950				0.527	
Satd. Flow (perm)	1787	1620	1853	1697	1019	2017
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		128		104		
Link Speed (mph)	25		25			25
Link Distance (ft)	249		332			477
Travel Time (s)	6.8		9.1			13.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	2%	1%	1%	0%
Adj. Flow (vph)	7	128	311	104	238	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	128	311	104	238	61
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		13			13
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.01	0.97	1.01	0.92	0.96	0.92
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0

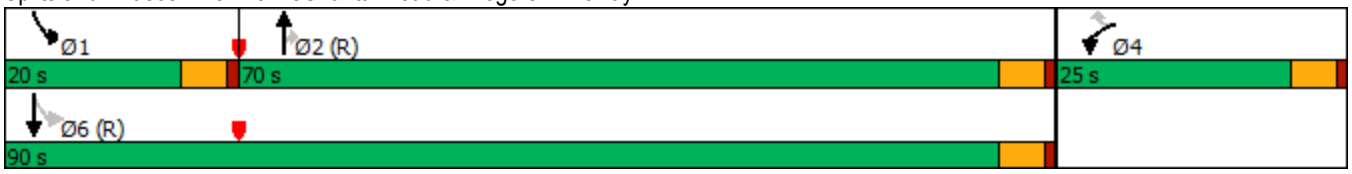


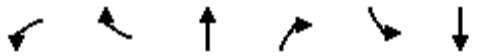
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	17.0	17.0	30.0	30.0	15.0	30.0
Total Split (s)	25.0	25.0	70.0	70.0	20.0	90.0
Total Split (%)	21.7%	21.7%	60.9%	60.9%	17.4%	78.3%
Maximum Green (s)	20.0	20.0	65.0	65.0	15.0	85.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0	5.0	5.0	3.0	5.0
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.2	9.2	82.3	82.3	95.8	95.8
Actuated g/C Ratio	0.08	0.08	0.72	0.72	0.83	0.83
v/c Ratio	0.05	0.52	0.23	0.08	0.26	0.04
Control Delay	47.7	16.1	6.6	1.4	2.3	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	16.1	6.6	1.4	2.3	1.6
LOS	D	B	A	A	A	A
Approach Delay	17.7		5.3			2.2
Approach LOS	B		A			A
Queue Length 50th (ft)	5	0	65	0	21	5
Queue Length 95th (ft)	19	57	128	18	m34	m11
Internal Link Dist (ft)	169		252			397
Turn Bay Length (ft)		80		120	210	
Base Capacity (vph)	310	387	1326	1244	955	1679
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.33	0.23	0.08	0.25	0.04

Intersection Summary	
Area Type:	Other
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 41 (36%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 44.4%	ICU Level of Service A
Analysis Period (min) 15	

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

Splits and Phases: 9: Mt. DeChantal Road & Krogers Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	120	292	98	224	57
Future Volume (veh/h)	7	120	292	98	224	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1876	1921	1864	1954	1954	1970
Adj Flow Rate, veh/h	7	128	311	104	238	61
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	1	1	0
Cap, veh/h	174	159	1345	1195	832	1606
Arrive On Green	0.10	0.10	0.72	0.72	0.02	0.27
Sat Flow, veh/h	1787	1628	1864	1656	1861	1970
Grp Volume(v), veh/h	7	128	311	104	238	61
Grp Sat Flow(s),veh/h/ln	1787	1628	1864	1656	1861	1970
Q Serve(g_s), s	0.4	8.9	6.4	2.1	3.3	2.6
Cycle Q Clear(g_c), s	0.4	8.9	6.4	2.1	3.3	2.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	174	159	1345	1195	832	1606
V/C Ratio(X)	0.04	0.81	0.23	0.09	0.29	0.04
Avail Cap(c_a), veh/h	311	283	1345	1195	981	1606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	50.8	5.4	4.8	3.4	8.7
Incr Delay (d2), s/veh	0.2	18.1	0.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	2.5	0.7	1.2	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.2	68.9	5.8	4.9	3.6	8.8
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	135		415			299
Approach Delay, s/veh	67.8		5.5			4.7
Approach LOS	E		A			A

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.8	88.0		16.2		98.8
Change Period (Y+Rc), s	5.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	15.0	65.0		20.0		85.0
Max Q Clear Time (g_c+I1), s	5.3	8.4		10.9		4.6
Green Ext Time (p_c), s	0.5	5.4		0.5		0.8

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	284	69	610	400	0	0
Future Volume (vph)	284	69	610	400	0	0
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	16	14	12	12	12
Grade (%)	0%			0%	3%	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.971					
Flt Protected				0.971		
Satd. Flow (prot)	3099	0	0	3093	0	0
Flt Permitted				0.971		
Satd. Flow (perm)	3099	0	0	3093	0	0
Link Speed (mph)	35			35	30	
Link Distance (ft)	557			562	954	
Travel Time (s)	10.9			10.9	21.7	
Confl. Peds. (#/hr)		4	4			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	2%	1%	2%	0%	0%
Adj. Flow (vph)	299	73	642	421	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	372	0	0	1063	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.15	0.98	1.06	1.15	1.18	1.18
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	284	69	610	400	0	0
Future Volume (Veh/h)	284	69	610	400	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	3%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	299	73	642	421	0	0
Pedestrians					4	
Lane Width (ft)					0.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh)				2		
Upstream signal (ft)				562		
pX, platoon unblocked					0.85	
vC, conflicting volume			303		1834	190
vC1, stage 1 conf vol					340	
vC2, stage 2 conf vol					1494	
vCu, unblocked vol			303		1621	190
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			49		100	100
cM capacity (veh/h)			1262		99	826

Direction, Lane #	EB 1	EB 2	WB 1	WB 2
Volume Total	199	173	782	281
Volume Left	0	0	642	0
Volume Right	0	73	0	0
cSH	1700	1700	1262	1700
Volume to Capacity	0.12	0.10	0.51	0.17
Queue Length 95th (ft)	0	0	75	0
Control Delay (s)	0.0	0.0	9.9	0.0
Lane LOS			A	
Approach Delay (s)	0.0		7.3	
Approach LOS				

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	61	8	201	61	10	185
Future Volume (vph)	61	8	201	61	10	185
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	3%		-2%			4%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.969			
Flt Protected	0.958					0.997
Satd. Flow (prot)	1579	0	1664	0	0	1561
Flt Permitted	0.958					0.997
Satd. Flow (perm)	1579	0	1664	0	0	1561
Link Speed (mph)	30		30			30
Link Distance (ft)	1796		396			959
Travel Time (s)	40.8		9.0			21.8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	3%
Adj. Flow (vph)	67	9	221	67	11	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	288	0	0	214
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.18	1.18	1.14	1.14	1.23	1.23
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	8	201	61	10	185
Future Vol, veh/h	61	8	201	61	10	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	3	-	-2	-	-	4
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	67	9	221	67	11	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	480	255	0	0	288	0
Stage 1	255	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	7	6.5	-	-	4.1	-
Critical Hdwy Stg 1	6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	506	772	-	-	1286	-
Stage 1	759	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	772	-	-	1286	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.4
HCM LOS	B		

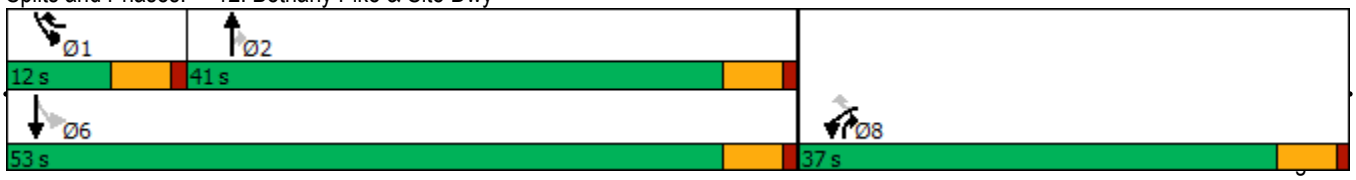
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	522	1286	-
HCM Lane V/C Ratio	-	-	0.145	0.009	-
HCM Control Delay (s)	-	-	13.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	308	18	368	356	20	389
Future Volume (vph)	308	18	368	356	20	389
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%		-1%			-2%
Storage Length (ft)	0	0		475	300	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				75	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1872	1591	1787	1881
Flt Permitted	0.950				0.300	
Satd. Flow (perm)	1770	1583	1872	1591	564	1881
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		20		396		
Link Speed (mph)	30		30			30
Link Distance (ft)	660		3796			747
Travel Time (s)	15.0		86.3			17.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	342	20	409	396	22	432
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	20	409	396	22	432
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	0.99	0.99	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	pm+ov	NA	pm+ov	pm+pt	NA
Protected Phases	8	1	2	8	1	6

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		8		2	6	
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	12.0	23.0	23.0	12.0	23.0
Total Split (s)	37.0	12.0	41.0	37.0	12.0	53.0
Total Split (%)	41.1%	13.3%	45.6%	41.1%	13.3%	58.9%
Maximum Green (s)	32.0	7.0	36.0	32.0	7.0	48.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Min	None	None	Min
Act Effct Green (s)	17.3	29.9	18.7	46.2	21.9	21.9
Actuated g/C Ratio	0.34	0.59	0.37	0.91	0.43	0.43
v/c Ratio	0.57	0.02	0.60	0.27	0.05	0.53
Control Delay	20.2	4.7	19.3	0.7	8.9	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	4.7	19.3	0.7	8.9	13.2
LOS	C	A	B	A	A	B
Approach Delay	19.4		10.1			13.0
Approach LOS	B		B			B
Queue Length 50th (ft)	64	0	77	0	3	83
Queue Length 95th (ft)	220	10	253	13	16	198
Internal Link Dist (ft)	580		3716			667
Turn Bay Length (ft)				475	300	
Base Capacity (vph)	1253	981	1419	1519	439	1627
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.02	0.29	0.26	0.05	0.27

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 50.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Bethany Pike & Site Dwy



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	18	368	356	20	389
Future Volume (veh/h)	308	18	368	356	20	389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1909	1909	1949	1949
Adj Flow Rate, veh/h	342	20	409	396	22	432
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	448	442	649	957	346	963
Arrive On Green	0.25	0.25	0.34	0.34	0.03	0.49
Sat Flow, veh/h	1781	1585	1909	1618	1856	1949
Grp Volume(v), veh/h	342	20	409	396	22	432
Grp Sat Flow(s),veh/h/ln	1781	1585	1909	1618	1856	1949
Q Serve(g_s), s	7.0	0.4	7.1	5.2	0.3	5.7
Cycle Q Clear(g_c), s	7.0	0.4	7.1	5.2	0.3	5.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	448	442	649	957	346	963
V/C Ratio(X)	0.76	0.05	0.63	0.41	0.06	0.45
Avail Cap(c_a), veh/h	1450	1333	1748	1889	626	2379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	10.4	10.9	4.3	7.8	6.5
Incr Delay (d2), s/veh	2.7	0.0	1.0	0.3	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.1	2.4	2.3	0.1	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.4	10.4	11.9	4.6	7.9	6.8
LnGrp LOS	B	B	B	A	A	A
Approach Vol, veh/h	362		805			454
Approach Delay, s/veh	16.0		8.3			6.8
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	18.4			24.4	14.9
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	7.0	36.0			48.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	9.1			7.7	9.0
Green Ext Time (p_c), s	0.0	4.3			3.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	63	8	20	62	7	18
Future Volume (vph)	63	8	20	62	7	18
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700
Grade (%)	0%			3%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.985				0.904	
Flt Protected				0.988	0.986	
Satd. Flow (prot)	1642	0	0	1622	1486	0
Flt Permitted				0.988	0.986	
Satd. Flow (perm)	1642	0	0	1622	1486	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1796			721	825	
Travel Time (s)	49.0			19.7	22.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	70	9	22	69	8	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	79	0	0	91	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.15	1.15	1.18	1.18	1.15	1.15
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	8	20	62	7	18
Future Vol, veh/h	63	8	20	62	7	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	3	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	9	22	69	8	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	79	0	188	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	113	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1519	-	801	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	789	986
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	898	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	922	-	-	1519	-
HCM Lane V/C Ratio	0.03	-	-	0.015	-
HCM Control Delay (s)	9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

STAHL SHEAFFER ENGINEERING

Appendix K. Turn Lane Warrant Evaluation

Project:		GC&P Bethany Pike (WV 88) Mixed-Use Development TIS		**Calculations:** MDS
Intersection	**WV 88 (Bethany Pike) and Site Driveway**			
Mainline	**Name:**	WV 88 Bethany Pike	STAHL SHEAFFER ENGINEERING	**Date:** 5/8/20
	Speed Limit (mph):	30		**Checked by:** JAG
	Approach Direction:	SB		**Date:** 5/8/20
Side Street	**Name:**	Site Driveway		**Source: AASHTO, *A Policy on the Geometric Design of Highways and Streets*, 2011**
	Speed Limit (mph):	25		

Left-Turn Lane Warrant — SB Left Turn Lane — WV 88 (Bethany Pike) and Site Driveway

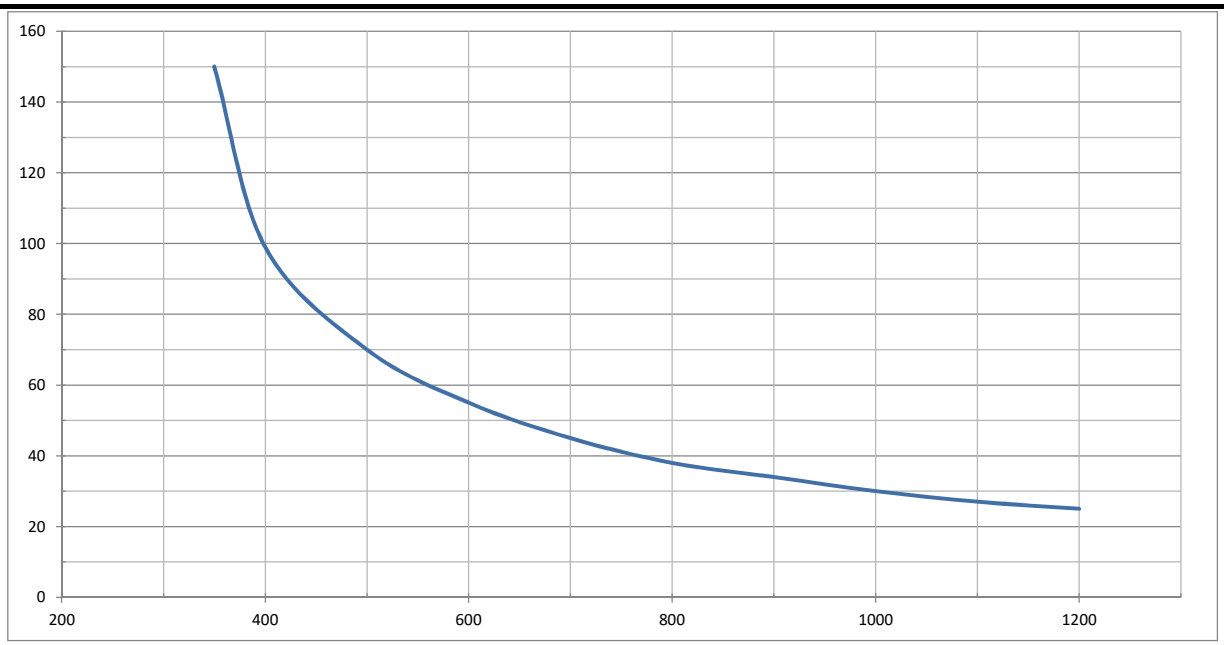
Warrant Satisfied? [ ] No [X] Yes

SCENARIO			2030 Build With Development		
			AM Peak	**PM Peak**	**Saturday Peak**
Traffic Factors	Speed, MPH		30	30	30
	# of Signal Phases (U=Unsignalized)		3	3	3
	Cycles/Hour	If unknown or Unsignalized = 40 cycles per hour (per TED 106-2)	40	40	40
	Left Turn Volume	Left Turn Volume (vph)	13	17	20
		% Heavy Vehiclees	2.00%	2.00%	2.00%
		Adjusted Volume (vph)	13	18	13
	Advancing Volume	Total Volume (vph)	588	509	409
		% Heavy Vehicles	2.00%	2.00%	2.00%
		Adjusted Volume (vph)	606	524	421
		% Adjusted Left-Turns	2%	3%	3%
	Opposing Volume	Total Volume (vph)	614	854	724
		% Heavy Vehicles	2.00%	2.00%	2.00%
		Adjusted Volume (vph)	632	880	746
	Warranting advancing volume (VA)		670	417	501
Warrant Satisfied?			**YES**	**YES**	**NO**
Calculated Storage (Feet)			**16**	**23**	**--**
Required Storage (Feet) *Minimum Required is 125 Feet. Rounded to next 25 Feet. Per AASHTO.*			**125**	**125**	**--**

Project:	**GC&P Bethany Pike (WV 88) Mixed-Use Development TIS**					**Calculations:**	MDS
Street	**Name:**	WV 88 Bethany Pike				**Date:**	5/8/20
	Speed Limit (mph):	30				**Checked by:**	JAG
	Approach Direction:	NB	NBL	NBT	NBR	**Date:**	5/8/20
Intersecting St	**Name:**	Site Driveway				STAHLSHEAFFER ENGINEERING	
	Speed Limit (mph):	25					
Intersection:	**WV 88 (Bethany Pike) and Site Driveway**					Source: NCHRP Report 457	

Right-Turn Lane Warrant (2 LANE ROAD, LESS THAN 45 MPH) **NB Right Turn Lane** **WV 88 (Bethany Pike) and Site Driveway**

[ ] Radius Only [X] Full-Width Lane 475-ft storage length



SCENARIO			2030 Build With Development								
			AM Peak	PM Peak	Saturday Peak						
Traffic Factors	Speed, MPH		30	30	30						
	# of Signal Phases (U=Unsignalized)		3	3	3						
	Cycles/Hour	If unknown or Unsignalized = 40 cycles per hour (per TED 106-2)	40	40	40						
	Approach Total	Volume (vph)	614	854	724						
		% Heavy Vehicles	2.00%	2.00%	2.00%						
		Adjusted Volume (vph)	632	880	746						
	Right Turns	Volume (vph)	230	296	356						
		% Heavy Vehicles	0.00%	0.00%	2.00%						
		Adjusted Volume (vph)	230	296	367						
	Warranting Volume		51	34	42						
Warrant Satisfied?			**YES**	**YES**	**YES**						
Calculated Storage (Feet)			**288**	**370**	**459**						
Required Storage (Feet) *Minimum Required is 125 Feet. Rounded to next 25 Feet. Per AASHTO.*			**300**	**375**	**475**						