



Washington Plaza Traffic Impact Analysis

City of Madison
Dane County, Wisconsin

April 26, 2021





TRAFFIC IMPACT ANALYSIS

DATE: April 26, 2021

TO: Steve Doran
Galway Companies, Inc.

FROM: Don Lee, P.E.
John A Bieberitz, P.E., PTOE
Traffic Analysis & Design, Inc.

SUBJECT: **Washington Plaza Development Traffic Impact Analysis
City of Madison, WI**

INTRODUCTION

Washington Plaza Capital LLC is proposing a mixed-use development to be located on the northwest corner of the East Washington Avenue intersection with North First Street in the City of Madison, Dane County, Wisconsin (Exhibit 1). Access to the site is proposed via three driveways; one full access driveway along North First Street and two right-in/right-out driveways, one along North First Street and one along East Washington Avenue (Exhibit 2). This traffic impact analysis (TIA) report was prepared to address the weekday morning and weekday evening peak hour traffic impacts of the proposed development traffic on the adjacent transportation system.

STUDY AREA

Study Intersections

The study area for this TIA includes the following existing and proposed intersections:

- North First Street & East Johnson Street (traffic signal control)
- North First Street & East Dayton Street (one-way stop control)
- North First Street & East Mifflin Street/proposed full access driveway (two-way stop control)
- North First Street & existing and proposed right-in/right-out driveway (one-way stop control)
- North First Street & East Washington Avenue (traffic signal control)
- East Washington Avenue & proposed right-in/right-out driveway (one-way stop control)

Each intersection is shown on the study area map on Exhibit 1. A transportation detail illustrating existing intersection lane configurations, speed limits, and approximate intersection spacing is shown in Exhibit 3.

Study Area Roadways

East Johnson Street (also known as STH 113 to the north of First Street) is a southwest/northeast, six-lane arterial highway to the north of the North First Street intersection that transitions to a four-lane cross section through the intersection and to the south. The posted speed limit on East Johnson Street is 30 miles per hour (mph). There are sidewalks located along the north side of the roadway and the Yahara River bike path is located along the south side of the roadway within the study area. The Wisconsin Department of Transportation (WisDOT) 2018 annual average daily traffic (AADT) volume along East Johnson Street was 26,900 vehicles per day (vpd) to the northeast of North First Street.

East Washington Avenue (also known as USH 151) is a southwest/northeast, six-lane arterial highway with a posted speed limit of 35-mph. There are sidewalks located along both sides of the roadway within the study area. The WisDOT 2018 AADT volumes along East Washington Avenue were 38,800-vpd to the northeast of North First Street and 50,400-vpd (2019 count) to the southwest.

North First Street (also known as STH 113 between East Johnson Street and East Washington Avenue) is a four-lane partially divided arterial with a posted speed limit of 25-mph. Sidewalks are located along both sides of the roadway within the study area and dedicated bike lanes are also provided within the roadway. The WisDOT 2018 AADT volumes along North First Street were 15,600-vpd to the southeast of East Johnson Street.

DATA COLLECTION

Existing Traffic Counts

Turning movement traffic counts were collected at the study area intersections in mid-March of 2021 during the weekday morning (6:00-9:00 a.m.) and weekday afternoon (3:00-6:00 p.m.) peak periods. In addition, during these same time periods, turning movement counts were collected at the driveways to the existing site. Since the existing land uses are being displaced as part of the project, these counts were used to reduce these existing driveway trips from the overall transportation network.

Based on the turning movement traffic counts at the main study area intersections, the peak traffic hours at the study intersections were determined to occur from 7:15-8:15 a.m. (AM peak hour) and from 4:30-5:30 p.m. (PM peak hour). The traffic volume counts were compiled for these peak hours, balanced between the study area intersections, and are shown on Exhibit 4A as the Existing traffic volumes. The full traffic count data collected for this study is included in Appendix A.

Factored Traffic Volumes

Since the turning movement counts for this study were conducted during the spring of the current health crisis/pandemic, historic hourly data from WisDOT's 2018 AADT count stations located along the East Johnson Street and East Washington Avenue corridors were compared to the weekday morning and weekday evening hourly through volumes collected at the study area intersections as part of this study as follows:

- The East Johnson Street volumes from the 2021 turning movement counts, northeast of North First Street, were approximately 82-percent lower during the weekday morning peak hour and 53-percent lower during the weekday evening peak hour than the 2018 WisDOT traffic volumes along the corridor during the typical pre-Covid weekday peak hour traffic conditions.
- The East Washington Avenue volumes from the 2021 turning movement counts, northeast of North First Street, were approximately 102-percent lower during the weekday morning peak hour and 63-percent lower during the weekday evening peak hour than the 2018 WisDOT traffic volumes along the corridor during the typical pre-Covid weekday peak hour traffic conditions.

Based on the comparison of historic WisDOT hourly weekday morning and weekday evening data, since the peak hour traffic volumes collected as part of this study were determined to be lower than the typical pre-Covid weekday peak hour traffic conditions, the year 2021 updated traffic volumes were “factored up” to typical (pre-Covid 2021) conditions based on this comparison. The existing factored traffic volumes were balanced through the adjacent study intersections and are shown as the Background (Factored) traffic volumes on Exhibit 4B. The historic WisDOT AADT hourly traffic count data and pre-Covid factor calculations are included in Appendix A.

PROPOSED DEVELOPMENT

Site Description

The conceptual footprint of the first floor for the proposed mixed-use development is shown on Exhibit 2. The proposed 6 story building is expected to include the following:

- Apartments/Townhouses – 306 units
- Commercial/Retail Space (first floor) – 16,500 square feet

Surface and underground (basement and first floor) parking are also included within the site. Access to the site is proposed via three driveways; one full access driveway along North First Street and two right-in/right-out driveways, one along North First Street and one along East Washington Avenue. The mixed-use development is planned to be constructed and operational in the year 2022 and is therefore included in the Full Build (with development) traffic volumes.

Trip Generation

To address any potential future traffic impacts at the study area intersections, it is necessary to identify the hourly volume of traffic generated by anticipated development. Traffic volumes expected to be generated are based on the size and type of the proposed uses and on trip rates and fitted curve equations as published in the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual, 10th Edition*.

The proposed development is expected to include linked trips. Linked trips occur when a motorist visits one or more tenant or land use within a development site (e.g., a motorist from the residential component visits a retail shop prior to leaving the overall site). Approximately 10-percent of the new commercial trips are expected to be linked trips.

The trip generation table developed for the proposed mixed-use development is shown on Exhibit 6. As shown, after linked trip reductions, the proposed development is expected to generate about 2,230 total trips over a typical weekday, with 115 new trips (35 in/80 out) expected during the weekday AM peak hour and 185 trips (105 in/80 out) expected during the weekday PM peak hour.

Madison Metro Transit runs several routes through the limits of the study area including routes 6, 15 and 23 along East Washington Avenue; routes 5 and 10 along East Johnson Street and route 27 which traverses both roadways via First Street. Most routes operate with approximately 30-minute headways. In addition, the City of Madison is working to implement a Bus Rapid Transit (BRT) system with a BRT station planned along East Washington Avenue near First Street.

Transit, pedestrians, and bicyclists may use their respective modes to access the identified development. However, to allow for a conservative (highest vehicular volume) analysis, these modes were assumed to make up a relatively small portion of the overall trips to/from the study area. For the purpose of this TIA, all trips to/from the proposed development site were assumed to occur via motor vehicle.

Trip Distribution

The trip distribution for the proposed development, listed below and shown in table format in Exhibit 6, was determined based on the existing traffic counts, the type of proposed land uses and the location of existing populations within the immediate study area.

- 20% to/from the north on East Johnson Street
- 20% to/from the south on East Johnson Street
- 25% to/from the north on East Washington Avenue
- 30% to/from the south on East Washington Avenue
- 5% to/from the east on North First Street

Traffic Assignment

The proposed mixed-use development new trips were assigned to the study intersections based on the above trip distributions. The traffic assignment is shown on Exhibit 7A.

Since the existing site was operational during the data collection, the existing driveway trips at the site were tabulated and distributed through the study area intersections within the transportation network based on the existing traffic patterns. The existing driveway trip traffic assignment, used as a reduction in overall trips to the system, is shown on Exhibit 5. The net new trips, which include adding the development new trips (Exhibit 7A) to the existing site driveway trips (Exhibit 5) are shown as the net new trips in Exhibit 7B.

The net new trips (Exhibit 7B) were added to the Background (factored) traffic volumes (Exhibit 4B) to generate the "Full Build" traffic volumes for the analysis. The Full Build traffic volumes are shown on Exhibit 8.

PEAK HOUR TRAFFIC OPERATIONS & QUEUES

The study intersections were analyzed using the Synchro 11 traffic analysis model (outputs based on the Highway Capacity Manual, 6th Edition) and the peak hour turning movement

volumes estimated for the study area intersections. Intersection operation is defined by “level of service”. Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS ‘A’, to very poor, represented by LOS ‘F’. For the purposes of this study, LOS D or better was used to define acceptable peak hour operating conditions.

The capacity analysis tables show the peak hour LOS, delays (in seconds per vehicle), and queues (in feet) for both the Background traffic condition and for the Full Build traffic condition. The Synchro capacity analysis worksheets for all analysis scenarios are located in Appendix B.

Background Traffic Operations

Table 1 shows the results of the weekday morning and weekday evening peak hour operational analysis at the study area intersections. The study intersections were evaluated using the existing geometrics and traffic control as shown on Exhibit 3 and the Background (factored) traffic volumes shown in Exhibit 4B.

Table 1
Background Traffic Peak Hour Operating Conditions
With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Node 100: E Johnson Street & First Street <i>Traffic Signal Control</i>	Lanes->														
	AM	LOS	-		D	C	B	A	D	A					C
		Delay	-		43	24	16	8	48	5					21
		Queue	-		130'	90'	155'	40'	200'	155'					
	PM	LOS	-		D	C	B	A	D	A					B
		Delay	-		37	29	15	6	42	5					18
		Queue	-		130'	130'	265'	70'	125'	105'					
	Lanes->														
	Node 200: First Street & Dayton Street <i>One-Way Stop Control</i>	AM	LOS	A	-	-	*	-	-	C					A
Delay			9	-	-	*	-	-	16					1	
Queue			25'	-	-	*	-	-	25'						
PM		LOS	A	-	-	*	-	-	B					A	
		Delay	9	-	-	*	-	-	14					1	
		Queue	25'	-	-	*	-	-	25'						
Lanes->															
Node 300: First Street & Mifflin Street <i>Two-Way Stop Control</i>	AM	LOS	A	*	A	*	C	B						A	
		Delay	8	*	9	*	19	14	14					1	
		Queue	25'	*	25'	*	25'	25'	25'						
	PM	LOS	A	*	A	*	C	B						A	
		Delay	8	*	9	*	15	13	13					1	
		Queue	25'	*	25'	*	25'	25'	25'						
Lanes->															
Node 500: E Washington Street & First Street <i>Traffic Signal Control</i>	AM	LOS	D	D	C	D	C	C	E	B	B	B	C	B	C
		Delay	37	37	30	45	28	25	76	14	11	13	32	16	30
		Queue	80'	95'	130'	140'	155'	40'	180'	210'	45'	30'	570'	70'	
	PM	LOS	E	D	C	E	C	C	D	C	B	C	C	C	C
		Delay	58	52	22	62	28	24	40	26	13	24	26	20	30
		Queue	280'	265'	75'	195'	200'	65'	175'	490'	65'	40'	290'	85'	

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
 Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.
 Where zero is shown for the volume at a particular movement, a minimum value of 1 was used in the model.

As shown in Table 1, all turning movements at the existing study area intersections are currently operating acceptably at LOS D or better during the peak hours under the Background (factored) traffic volumes developed for this study except the northbound left-

turn movements (LOS E) during the AM peak hour and the eastbound and westbound left-turn movements (LOS E) during the PM peak hour at the East Washington Avenue intersection with First Street.

Full Build Traffic Operations

The proposed site access driveways were evaluated with stop control on the development site approach. Table 2 shows the results of the weekday morning and weekday evening peak hour operational analysis at the study area intersections with the proposed development operational. The study intersections were evaluated using the Full Build traffic volumes shown in Exhibit 8.

Table 2
Full Build Traffic Peak Hour Operating Conditions
With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay	
			Eastbound			Westbound			Northbound			Southbound				
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙		
Node 100: E Johnson Street & First Street <i>Traffic Signal Control</i>	AM	Lanes->	-	-	-	2	2	-	3	1	2	2	-			
		LOS	-	-	D	C	B	A	D	A	C					
		Delay	-	-	44	24	16	8	48	6	21					
	PM	Queue	-	-	135'	90'	155'	40'	200'	155'						
		LOS	-	-	D	C	B	A	D	A	B					
		Delay	-	-	37	28	15	6	42	5	18					
	Queue	-	-	130'	135'	265'	70'	125'	105'							
	Node 200: First Street & Dayton Street <i>One-Way Stop Control</i>	AM	Lanes->	1	-	-	-	3	-	-	-	1	-			
			LOS	A	-	-	-	*	-	-	C	A				
Delay			9	-	-	-	*	-	-	15	1					
PM		Queue	25'	-	-	-	*	-	-	25'						
		LOS	A	-	-	-	*	-	-	B	A					
		Delay	9	-	-	-	*	-	-	14	1					
Queue	25'	-	-	-	*	-	-	25'								
Node 300: First Street & Mifflin Street <i>Two-Way Stop Control</i>	AM	Lanes->	1	1	1	1	2	1	1	1	1					
		LOS	A	*	A	*	*	C	*	C	A					
		Delay	8	*	9	*	*	18	*	16	1					
	PM	Queue	25'	*	25'	*	*	25'	*	25'						
		LOS	A	*	A	*	*	B	*	C	A					
		Delay	8	*	9	*	*	14	*	15	1					
Queue	25'	*	25'	*	*	25'	*	25'								
Node 400: First Street & East Driveway <i>One-Way Stop Control</i>	AM	Lanes->	-	3	-	-	2	-	-	1	-	-				
		LOS	-	*	-	-	*	-	-	B	-	A				
		Delay	-	*	-	-	*	-	-	12	-	1				
	PM	Queue	-	*	-	-	*	-	-	25'	-					
		LOS	-	*	-	-	*	-	-	B	-	A				
		Delay	-	*	-	-	*	-	-	12	-	1				
Queue	-	*	-	-	*	-	-	25'	-							
Node 500: E Washington Street & First Street <i>Traffic Signal Control</i>	AM	Lanes->	1	1	2	1	1	1	2	3	1	1	3	1		
		LOS	D	D	C	D	C	C	F	B	B	B	C	B	C	
		Delay	38	37	30	46	28	25	84	14	11	13	33	16	31	
	PM	Queue	100'	100'	130'	140'	155'	40'	190'	210'	45'	30'	570'	70'		
		LOS	E	D	C	E	C	C	D	C	B	C	C	C	C	
		Delay	58	52	22	66	28	24	41	26	13	24	26	20	31	
	Queue	280'	265'	70'	205'	195'	65'	180'	490'	65'	40'	295'	80'			
	Node 600: E Washington Street & South Driveway <i>One-Way Stop Control</i>	AM	Lanes->	-	-	1	-	-	-	3	-	-	3	-	1	
			LOS	-	-	E	-	-	-	*	-	*	*	*	A	
Delay			-	-	39	-	-	-	*	-	*	*	*	1		
PM		Queue	-	-	25'	-	-	-	*	-	*	*	*			
		LOS	-	-	C	-	-	-	*	-	*	*	*	A		
		Delay	-	-	19	-	-	-	*	-	*	*	*	1		
Queue	-	-	25'	-	-	-	*	-	*	*	*					

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
 Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.
 Where zero is shown for the volume at a particular movement, a minimum value of 1 was used in the model.

As shown in Table 2, with the additional traffic from the proposed development, all turning movements at the study intersections are expected to continue to operate acceptably at LOS D or better during the peak hours under the Full Build traffic volumes except the northbound left-turn movements (LOS F) during the AM peak hour and the eastbound and westbound left-turn movements (LOS E) during the PM peak hour at the East Washington Avenue intersection with First Street. In addition, the right-turn movements out of the East Washington Avenue intersection with the south development driveway are expected to operate at LOS E (only 4 seconds above the LOS D threshold) during the AM peak period under the Full Build traffic volume conditions, but with gaps created by the existing traffic signal located immediately to the north at First Street, this intersection is expected to operate better than reflected in the modeling software.

RECOMMENDATION MODIFICATIONS

Modifications are expected to be necessary at the study area intersections to allow for acceptable and safe operations under the Background and Full Build traffic volume conditions. The following modifications, as shown in Exhibit 9, are recommended to accommodate the Background and Full Build traffic volume conditions. *Modifications are for jurisdictional consideration and are not legally binding. The City of Madison reserves the right to determine alternative solutions.*

Node 100: East Johnson Street & First Street

- *Background Traffic:* No modifications
- *Full Build Traffic:* No modifications

Node 200: First Street & Dayton Street

- *Background Traffic:* No modifications
- *Full Build Traffic:* No modifications

Node 300: First Street & Mifflin Street/Proposed West Driveway

- *Background Traffic:* No modifications
- *Full Build Traffic:*
 - Provide a full access driveway onto First Street as shown on the conceptual site plan.
 - Provide stop sign control on the driveway approach.

Node 400: First Street & Proposed East Driveway

- *Background Traffic:* No modifications
- *Full Build Traffic:*
 - Provide a right-in/right-out access driveway onto First Street as shown on the conceptual site plan.
 - Provide stop sign control on the driveway approach.

Node 500: First Street & Dillon Street

- *Year 2022 Background Traffic:*
 - Adjust green times for the northbound left-turn movement off of East Washington Avenue (expected adjustment of 2 seconds) during the weekday AM peak period.
 - Adjust green times for the eastbound/westbound left-turn movement off of First Street (expected adjustment of 2 seconds) during the weekday PM peak period.
- *Year 2032 Build Traffic:* No additional modifications

Node 600: East Washington Avenue & Proposed South Driveway

- *Background Traffic:* No modifications
- *Full Build Traffic:*
 - Provide a right-in/right-out access driveway onto East Washington Avenue as shown on the conceptual site plan.
 - Provide stop sign control on the driveway approach.

Table 3 shows the results of the weekday morning and weekday evening peak hour operational analysis at the study area intersections with the proposed development operational and with the aforementioned modifications constructed including signal timing modifications implemented.

Table 3
Full Build Traffic Peak Hour Operating Conditions
With Existing Geometrics and Traffic Control - Adjusted Signal Timings

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay			
			Eastbound			Westbound			Northbound			Southbound						
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙				
Node 100: E Johnson Street & First Street <i>Traffic Signal Control</i>	AM	Lanes->	-	-	2	2	3	1	2	2	-	-	-	-	-	-	-	
		LOS	-	-	D	C	B	A	D	A	-	-	-	-	-	-	-	C
		Delay	-	-	44	24	16	8	48	6	-	-	-	-	-	-	-	21
	Queue	-	-	135'	95'	155'	40'	200'	155'	-	-	-	-	-	-	-	-	
	PM	LOS	-	-	D	C	B	A	D	A	-	-	-	-	-	-	-	B
		Delay	-	-	37	28	15	6	42	5	-	-	-	-	-	-	-	18
Queue		-	-	125'	135'	265'	70'	125'	105'	-	-	-	-	-	-	-	-	
Node 200: First Street & Dayton Street <i>One-Way Stop Control</i>	AM	Lanes->	1	-	-	3	-	-	-	1	-	-	-	-	-	-	-	
		LOS	A	-	-	*	-	-	-	C	-	-	-	-	-	-	-	A
		Delay	9	-	-	*	-	-	-	15	-	-	-	-	-	-	-	1
	Queue	25'	-	-	*	-	-	-	25'	-	-	-	-	-	-	-	-	
	PM	LOS	A	-	-	*	-	-	-	B	-	-	-	-	-	-	-	A
		Delay	9	-	-	*	-	-	-	14	-	-	-	-	-	-	-	1
Queue		25'	-	-	*	-	-	-	25'	-	-	-	-	-	-	-	-	
Node 300: First Street & Mifflin Street <i>Two-Way Stop Control</i>	AM	Lanes->	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
		LOS	A	*	A	*	C	C	C	C	C	C	C	C	C	C	C	A
		Delay	8	*	9	*	18	16	16	16	16	16	16	16	16	16	16	1
	Queue	25'	*	25'	*	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	-
	PM	LOS	A	*	A	*	B	C	C	C	C	C	C	C	C	C	C	A
		Delay	8	*	9	*	14	15	15	15	15	15	15	15	15	15	15	1
Queue		25'	*	25'	*	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	25'	-	
Node 400: First Street & East Driveway <i>One-Way Stop Control</i>	AM	Lanes->	-	3	-	2	-	1	-	-	-	-	-	-	-	-	-	
		LOS	-	*	*	*	-	B	-	-	-	-	-	-	-	-	-	A
		Delay	-	*	*	*	-	12	-	-	-	-	-	-	-	-	-	1
	Queue	-	*	*	*	-	25'	-	-	-	-	-	-	-	-	-	-	
	PM	LOS	-	*	*	*	-	B	-	-	-	-	-	-	-	-	-	A
		Delay	-	*	*	*	-	12	-	-	-	-	-	-	-	-	-	1
Queue		-	*	*	*	-	25'	-	-	-	-	-	-	-	-	-	-	
Node 500: E Washington Street & First Street <i>Traffic Signal Control</i>	AM	Lanes->	1	1	2	1	1	1	2	3	1	1	3	1	1	1	1	
		LOS	D	D	C	D	C	C	D	B	B	B	D	B	B	B	B	C
		Delay	39	37	28	46	28	25	51	14	11	14	39	17	17	17	17	32
	Queue	100'	100'	130'	140'	155'	40'	170'	210'	45'	30'	595'	75'	75'	75'	75'	75'	
	PM	LOS	D	D	C	D	C	C	D	C	B	C	C	C	C	C	C	C
		Delay	52	45	21	45	26	23	41	30	14	25	29	22	22	22	22	32
Queue		270'	255'	70'	175'	190'	65'	180'	560'	70'	45'	335'	85'	85'	85'	85'	85'	
Node 600: E Washington Street & South Driveway <i>One-Way Stop Control</i>	AM	Lanes->	-	1	-	-	3	-	-	3	-	1	-	-	-	-	-	
		LOS	-	E	-	-	*	*	*	*	*	*	*	*	*	*	*	A
		Delay	-	39	-	-	*	*	*	*	*	*	*	*	*	*	*	1
		v/c	-	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Queue	-	25'	-	-	*	*	*	*	*	*	*	*	*	*	*	*	
	PM	LOS	-	C	-	-	*	*	*	*	*	*	*	*	*	*	*	A
Delay		-	19	-	-	*	*	*	*	*	*	*	*	*	*	*	1	
Queue	-	25'	-	-	*	*	*	*	*	*	*	*	*	*	*	*	-	

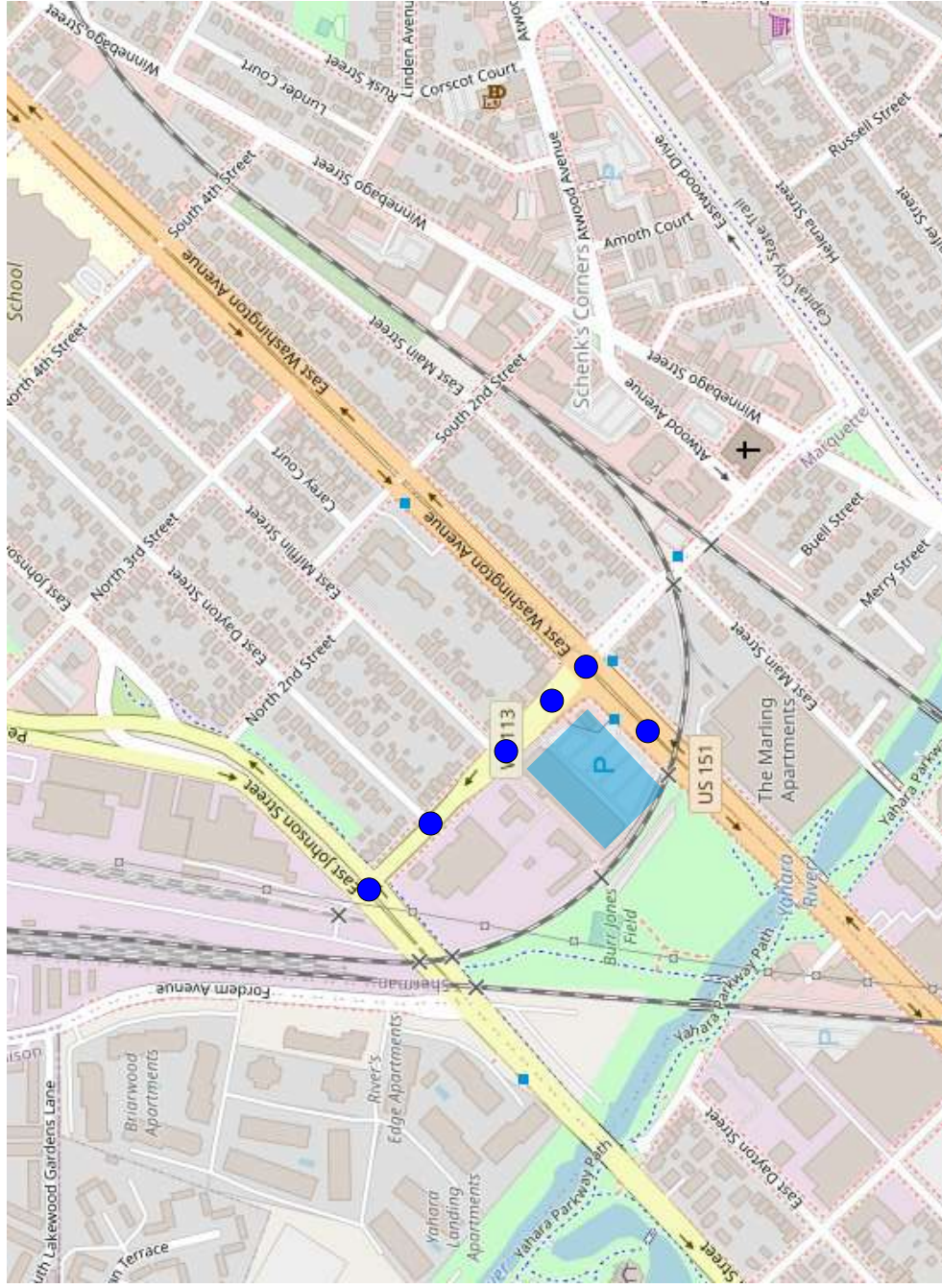
(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
 Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.
 Where zero is shown for the volume at a particular movement, a minimum value of 1 was used in the model.

As shown in Table 3, with the recommended modifications provided to accommodate the additional traffic from the proposed development, all turning movements at the study intersections are expected to improve to operate acceptably at LOS D or better during the peak hours under the Full Build traffic volumes except the right-turn movements out of the development at the East Washington Avenue intersection with the south driveway which are expected to operate at LOS E during the AM peak period under the Full Build traffic volume conditions. It is expected that with a peak hour right turn volume of only 15 vehicles and delays of only 4 seconds above the LOS D threshold, and with gaps created by

the existing traffic signal located immediately to the north at First Street, this intersection is expected to operate better than reflected in the modeling software.

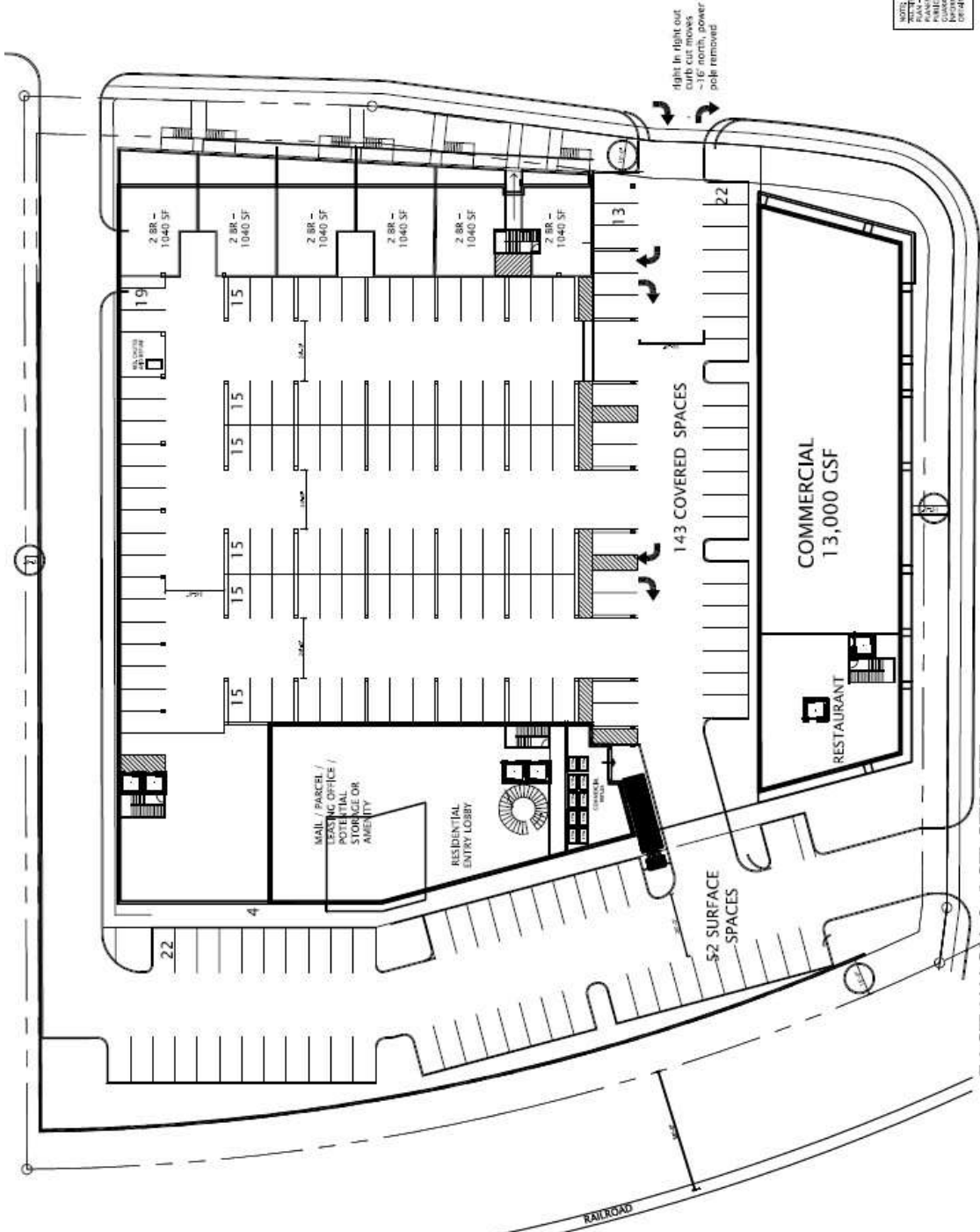
CONCLUSION

Based on the projected traffic volumes and with the recommended modifications as shown on Exhibit 9, all three site driveway connections are expected to operate acceptably with stop sign control on the development site approach under full build conditions. In addition, minor traffic signal timing modifications would benefit traffic operations at the East Washington Avenue intersection with First Street. All movements at the study area intersections are expected to operate safely and efficiently with the modifications identified in this TIA through the opening year and with full buildout and full occupancy of the proposed development.



LEGEND

- Study Intersections
- Proposed Development Site



NOTE: ALL INFORMATION CONTAINED IN THIS CONCEPTUAL SITE PLAN IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE A CONTRACT. THE INFORMATION IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF JLA ARCHITECTS. THE INFORMATION IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF JLA ARCHITECTS. THE INFORMATION IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF JLA ARCHITECTS.

FEBRUARY 17, 2021
 1"=40' @ 11X17"

EAST WASH & 1ST STREET

CONCEPTUAL MASTERPLAN - 1ST FLOOR - ELEVATION 860' ASL










NOT TO SCALE

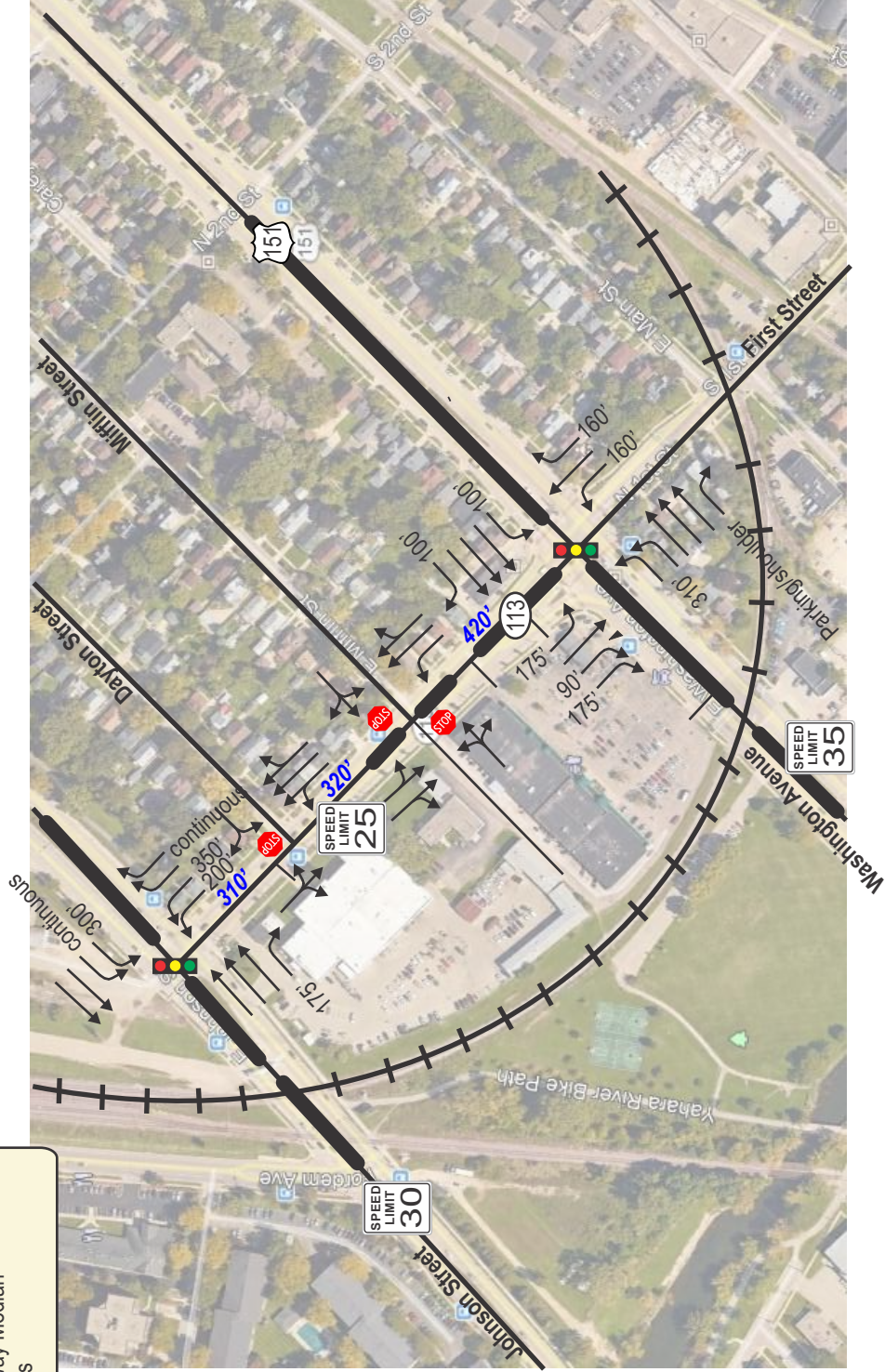


2656: 04-26-21

EXHIBIT 2
CONCEPTUAL SITE PLAN
 MADISON, WISCONSIN

LEGEND

-  Traffic Signal
-  Stop Sign
-  Existing Lane Configuration
-  Existing Storage Length (in Feet)
-  Distance Between Roadways (in Feet)
-  Divided Roadway Median
-  Railroad Tracks



2656: 04-26-21



NOT TO SCALE

EXHIBIT 4A
YEAR 2021 EXISTING TRAFFIC VOLUMES
BALANCED
MADISON, WISCONSIN

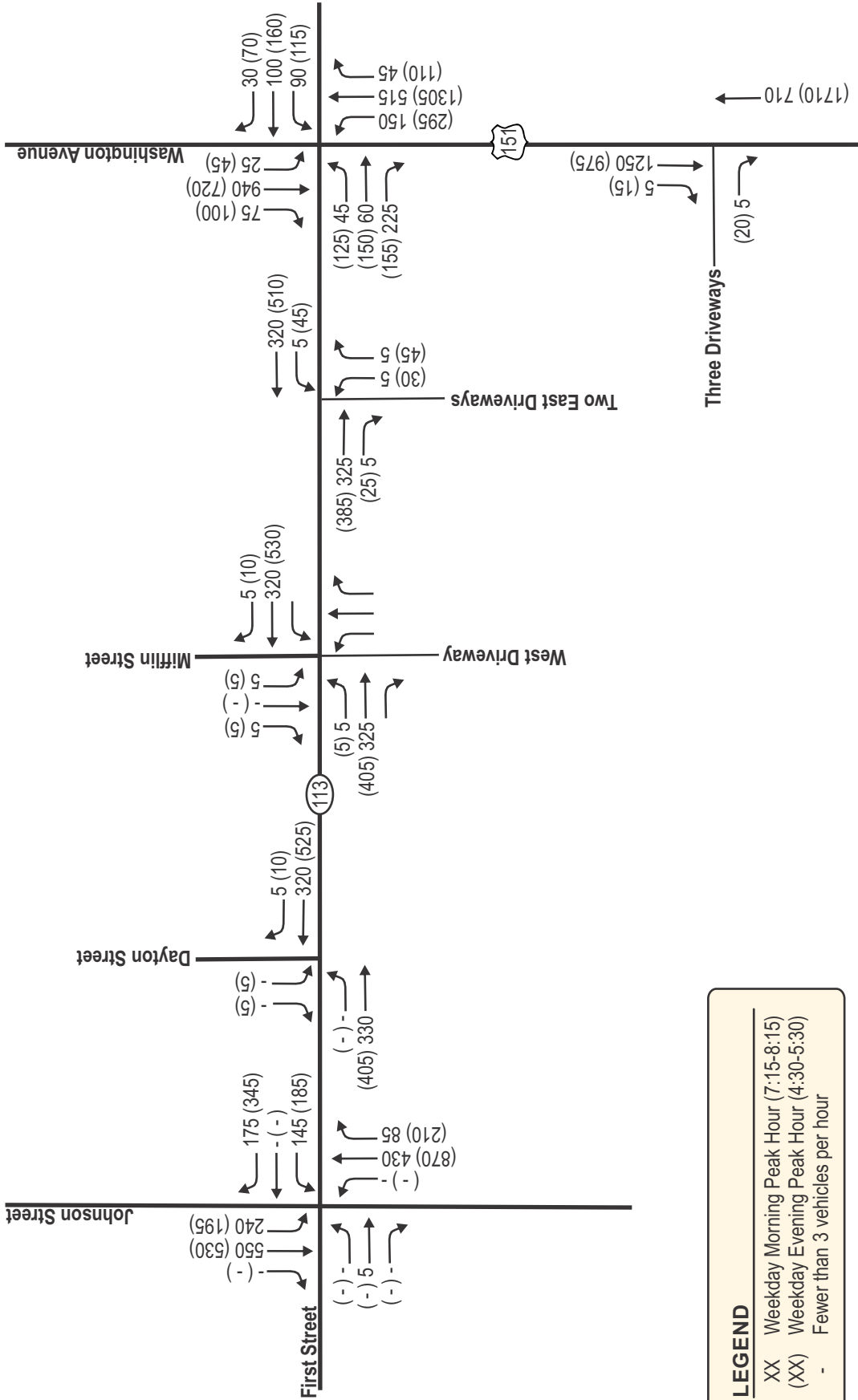
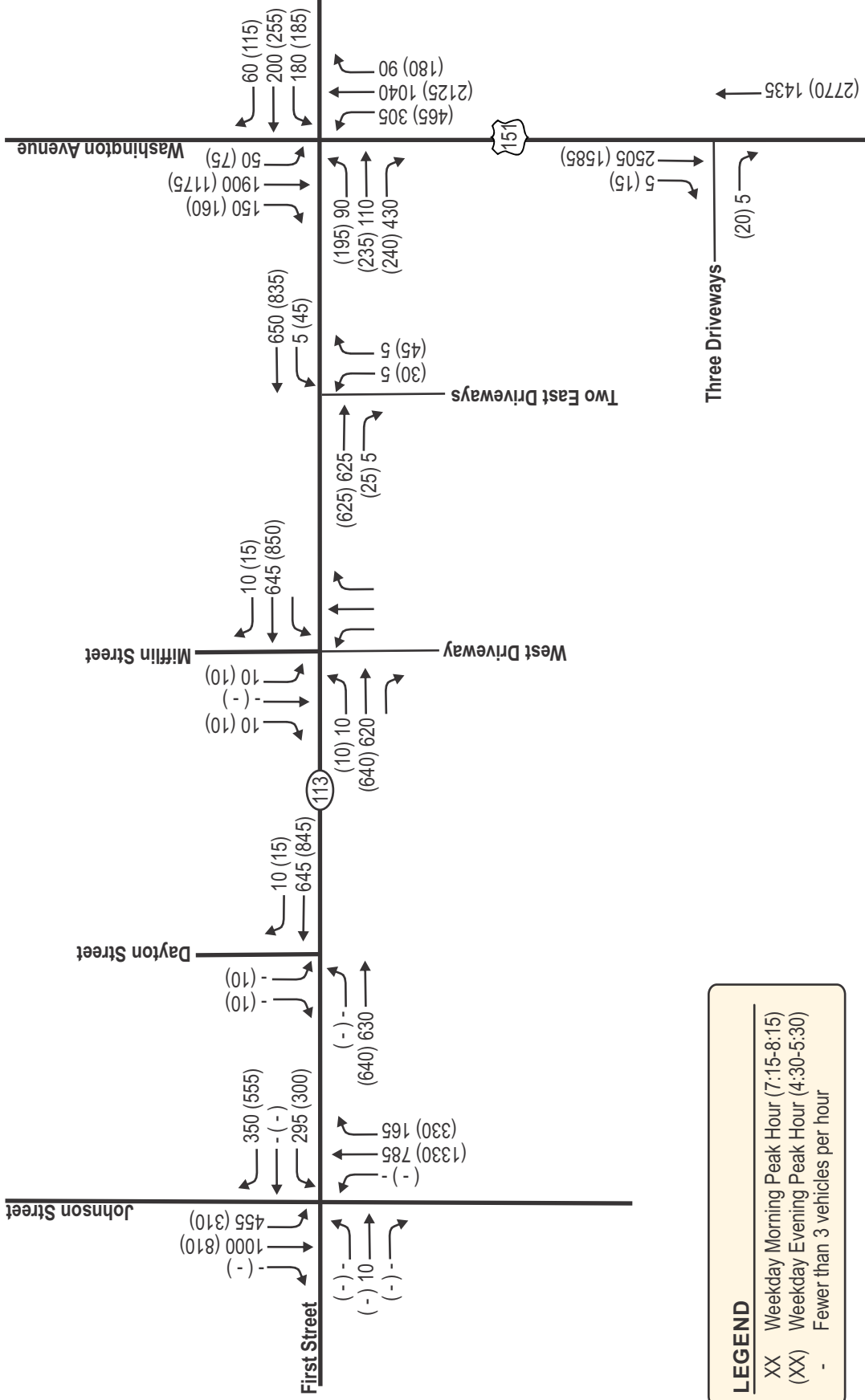
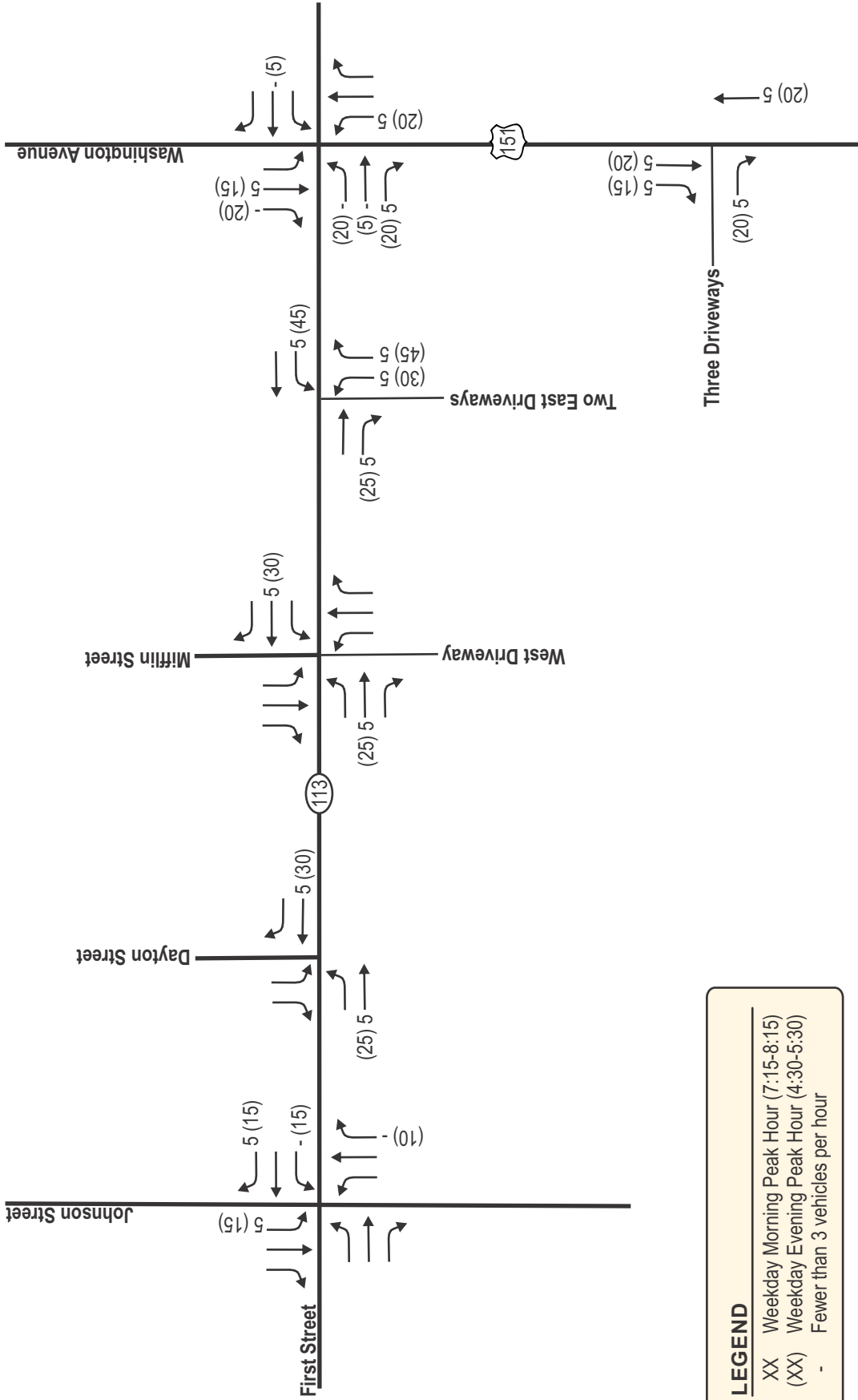


EXHIBIT 4B
YEAR 2021 BACKGROUND TRAFFIC VOLUMES
FACTORED & BALANCED
MADISON, WISCONSIN



**EXHIBIT 5
EXISTING LAND USE DRIVEWAY TRIPS
USED FOR REDUCTION
MADISON, WISCONSIN**



**Exhibit 6
On-Site Trip Generation Table**

Land Use	ITE Code	Proposed Size	Weekday Daily	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Apartments (Mid-Rise - includes apartments & townhouses)	221	306 Units	1,670 FCE	25 (26%)	75 (74%)	100 FCE	80 (61%)	50 (39%)	130 FCE
Commercial (Retail/Shopping)	820	16,500 x 1,000 SF	620 (37.75)	10 (62%)	5 (38%)	15 (0.94)	30 (48%)	35 (52%)	65 (3.81)
Total Trips			2,290	35	80	115	110	85	195
		<i>Minus Linked Trips</i>	<i>(820)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-5</i>	<i>-5</i>	<i>-10</i>
Total New Trips		10%	2,230	35	80	115	105	80	185

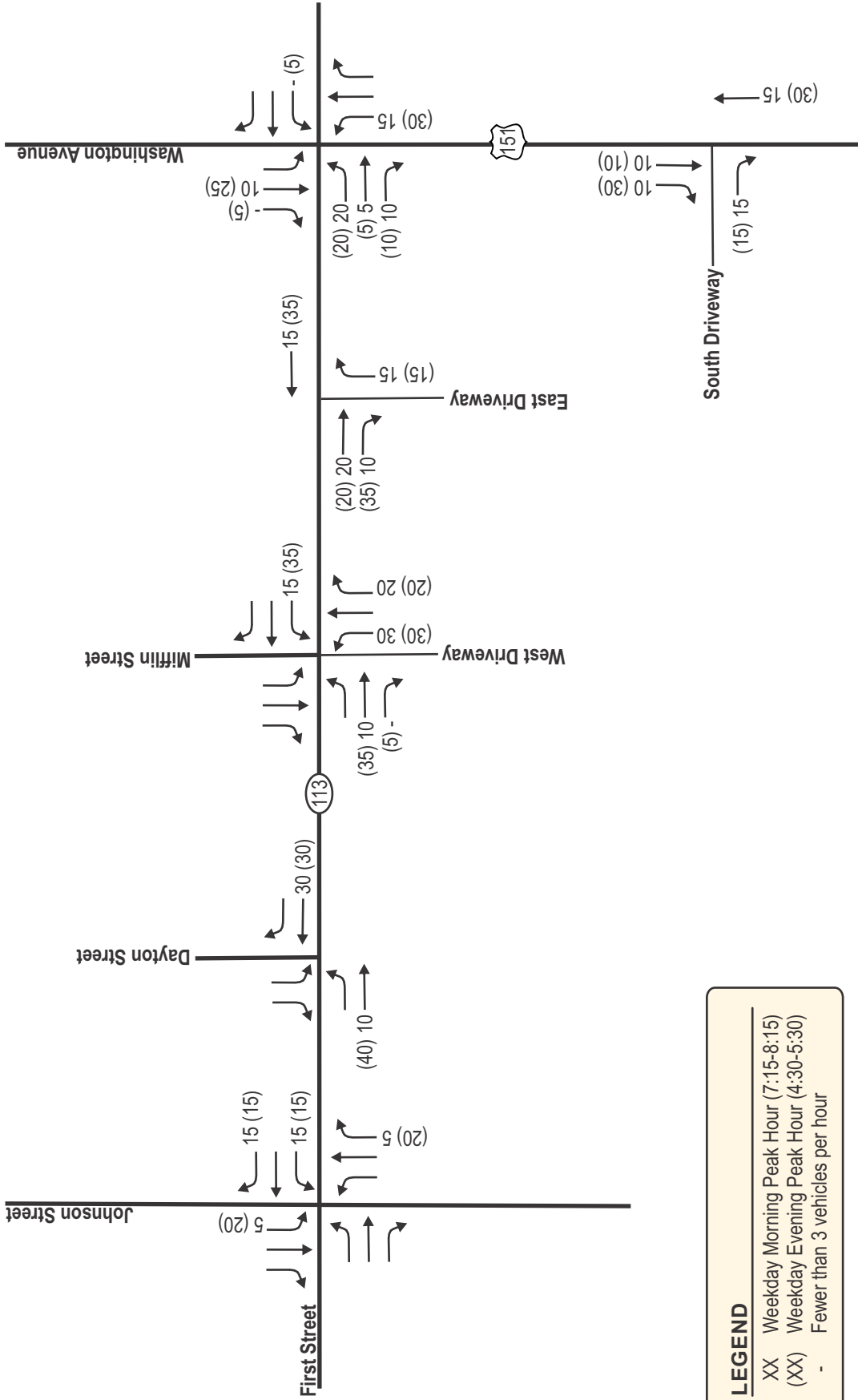
* FCE = Fitted Curve Equation, ITE Trip Generation, 10th Edition

TRIP DISTRIBUTION

North on Johnson Street	20%	450	5	15	20	15	20	35
South on Johnson Street	20%	450	5	15	20	15	20	35
North on East Washington Ave	25%	550	10	20	30	20	30	50
South on East Washington Ave	30%	670	15	25	40	30	30	55
East on First Street	5%	110	0	5	5	5	5	10
	100%	2230	35	80	115	105	80	185



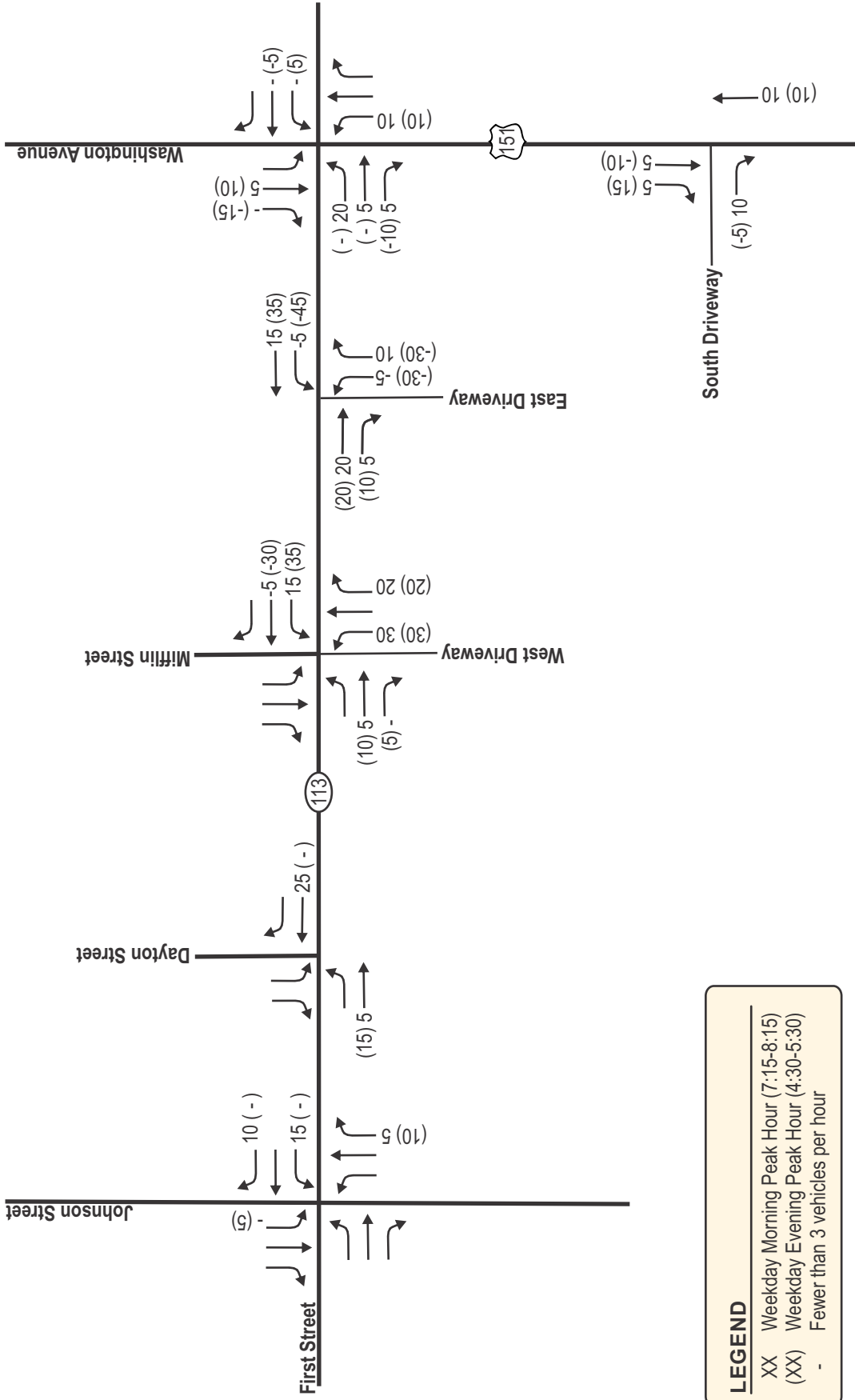
2656: 04-26-21



LEGEND

- XX Weekday Morning Peak Hour (7:15-8:15)
- (XX) Weekday Evening Peak Hour (4:30-5:30)
- Fewer than 3 vehicles per hour





LEGEND

XX Weekday Morning Peak Hour (7:15-8:15)

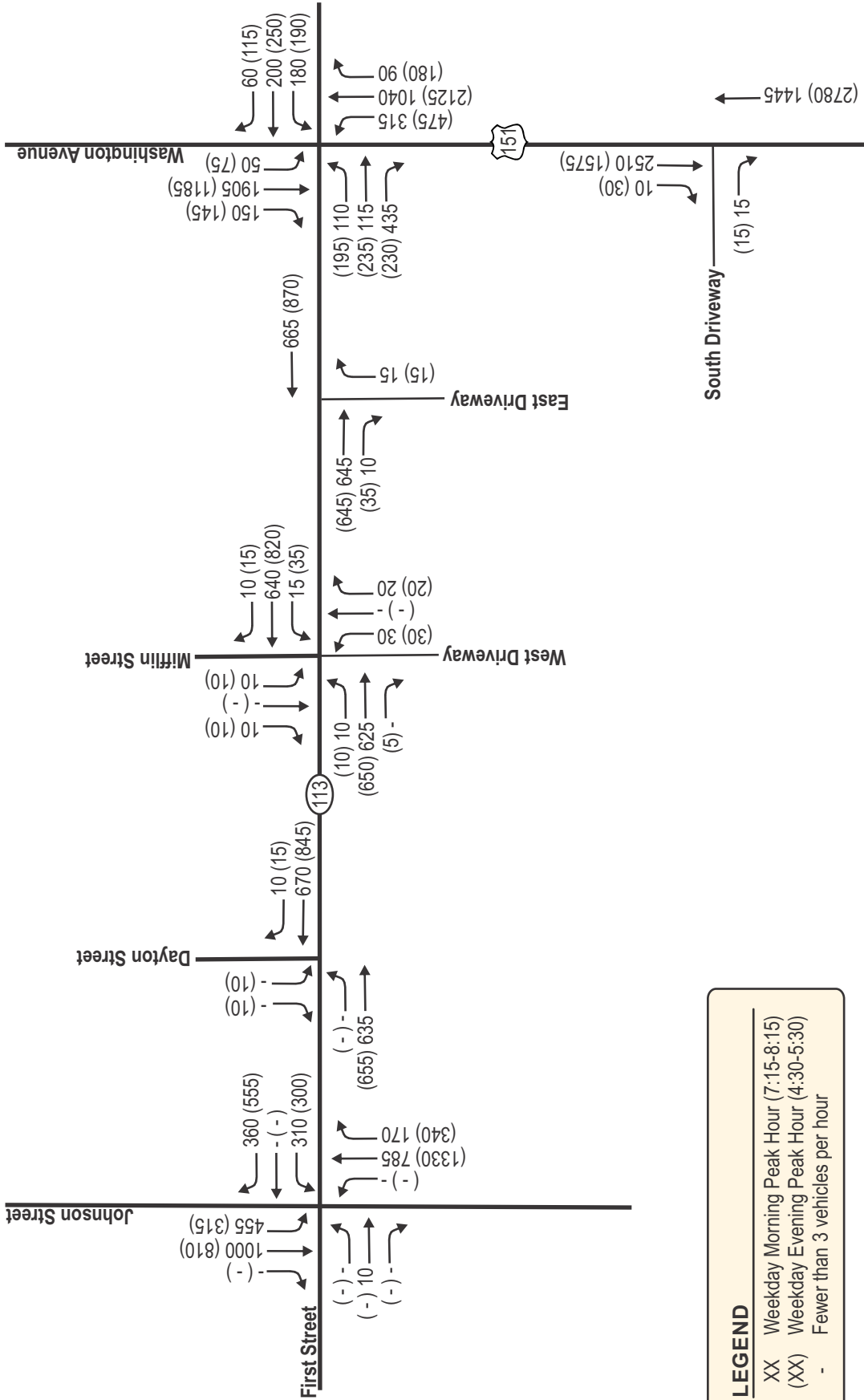
(XX) Weekday Evening Peak Hour (4:30-5:30)

- Fewer than 3 vehicles per hour



EXHIBIT 8 FULL BUILD TRAFFIC VOLUMES

MADISON, WISCONSIN



LEGEND

- XX Weekday Morning Peak Hour (7:15-8:15)
- (XX) Weekday Evening Peak Hour (4:30-5:30)
- Fewer than 3 vehicles per hour

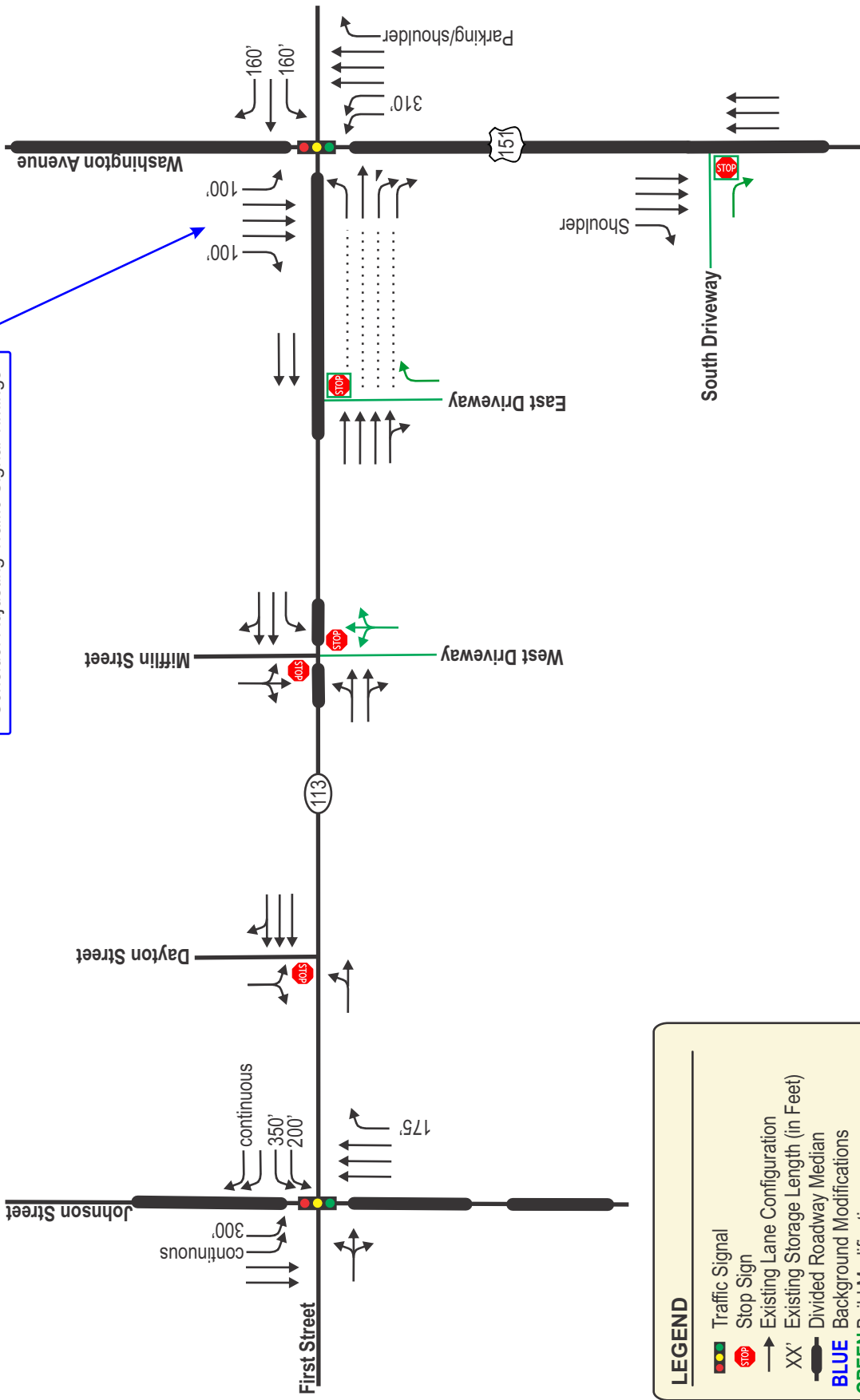


NOT TO SCALE



2656: 04-26-21

Consider Adjusting Traffic Signal Timings



LEGEND

- Traffic Signal
- Stop Sign
- Existing Lane Configuration
- Existing Storage Length (in Feet)
- Divided Roadway Median
- BLUE** Background Modifications
- GREEN** Build Modifications



2656: 04-26-21

EXHIBIT 9
RECOMMENDED MODIFICATIONS
 MADISON, WISCONSIN

Appendix A

Traffic

Existing Turning Movement Counts

Historic WisDOT Hourly AADT Traffic Backup & Calculations

Existing Traffic Signal Timings

Intersection Traffic Volume Report

Count Basics		Version 2013.J4.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	4.75	Non-Holiday	No Special Events		

Base Information, Observed (4.75) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Washington Ave & 3 DWS**

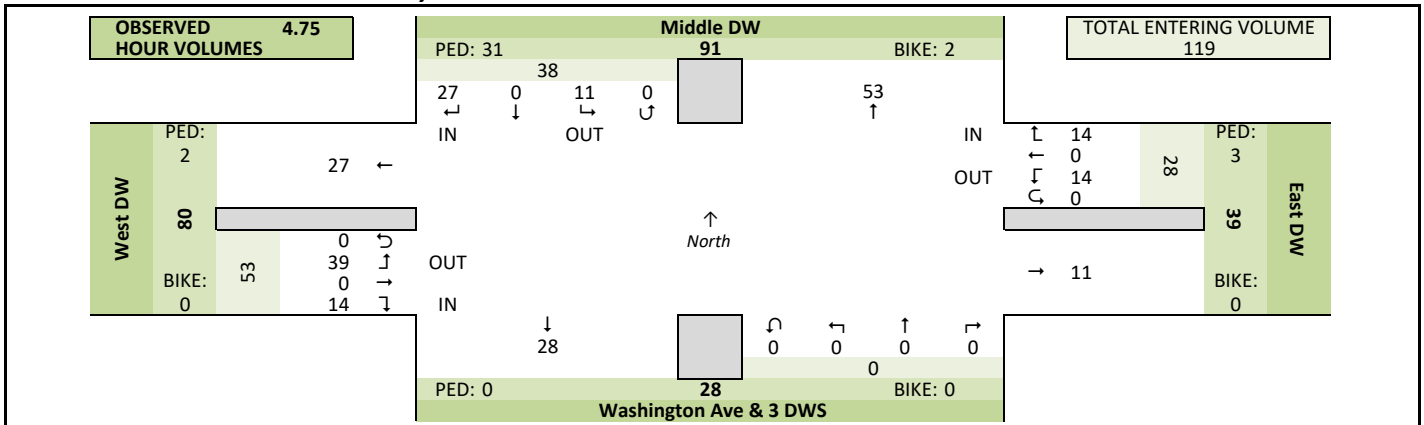
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	Middle DW		
East Leg	East DW		
South Leg	Washington Ave & 3 DWS		
West Leg	West DW		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

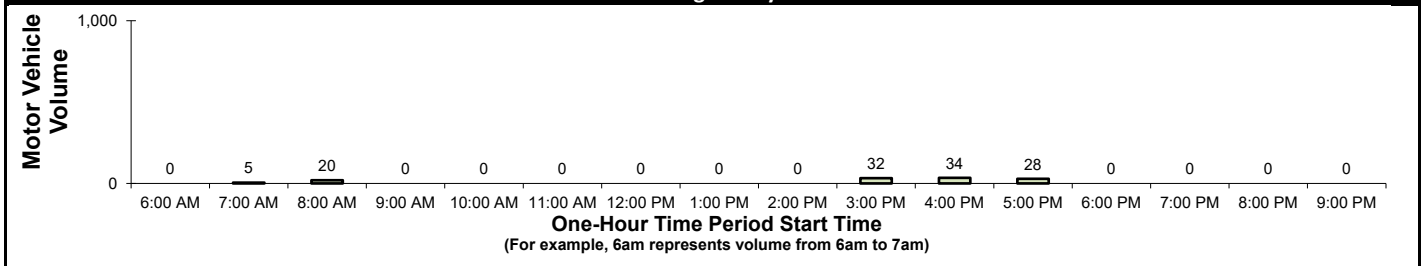
Count Information

Hrs Counted:	7:15 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021	Weather	
AM Peak Period	Thursday, March 18, 2021	Clear & Dry	
Midday Peak Period	Wednesday, March 17, 2021	Clear & Dry	
PM Peak Period	Wednesday, March 17, 2021	Overcast & Wet	
Calculated Peak Hours			
AM	8:00-9:00am	MD	PM 3:15-4:15pm
Peak Hours Selected for Analysis			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI, Inc.	Manual Adj.	1.000
Observers	AM Peak Period	Amy Scheuerlein - Video Counts	
	Midday Peak Period	None	
	PM Peak Period	Amy Scheuerlein - Video Counts	
Comments	2019 DOT Seasonal Factors		

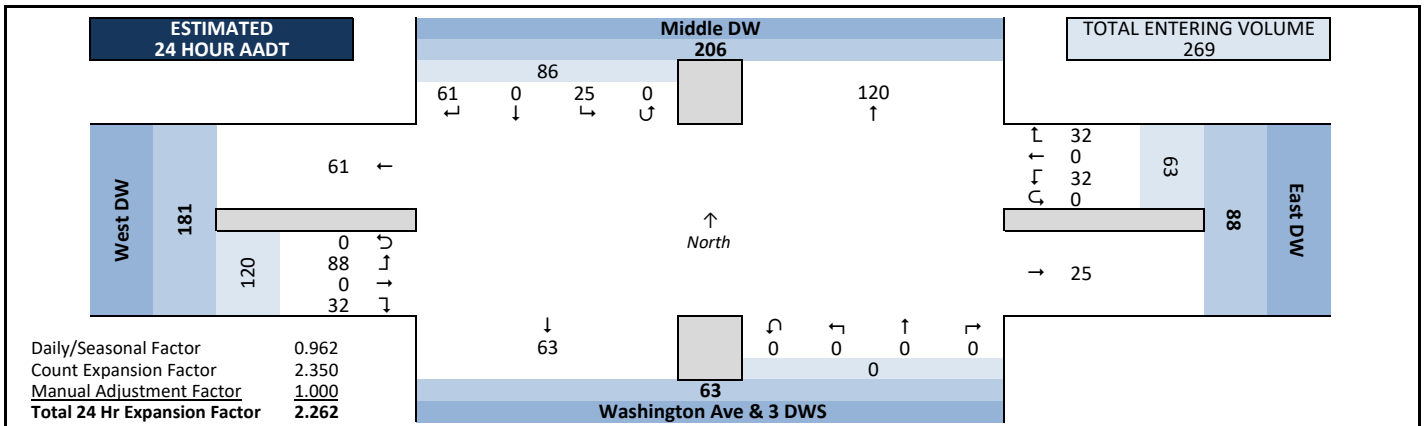
Observed 4.75 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT

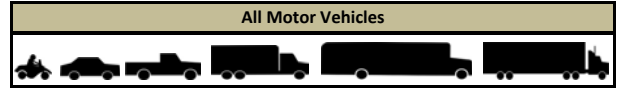


Intersection Traffic Volume Report

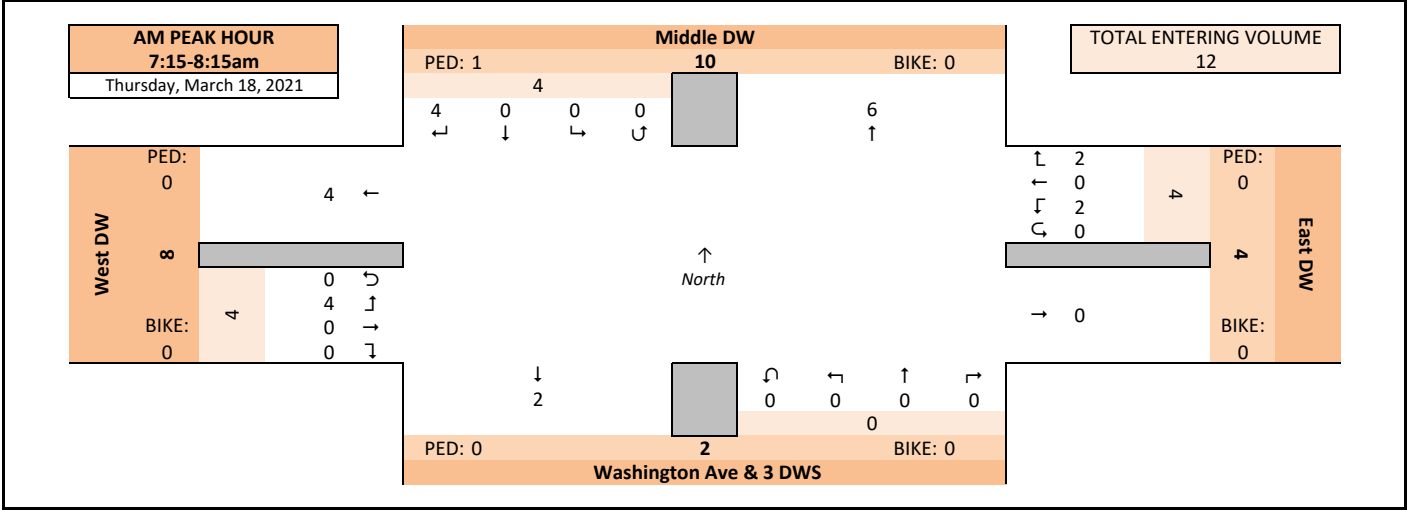
Count Basics		Page 2 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	4.75	Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

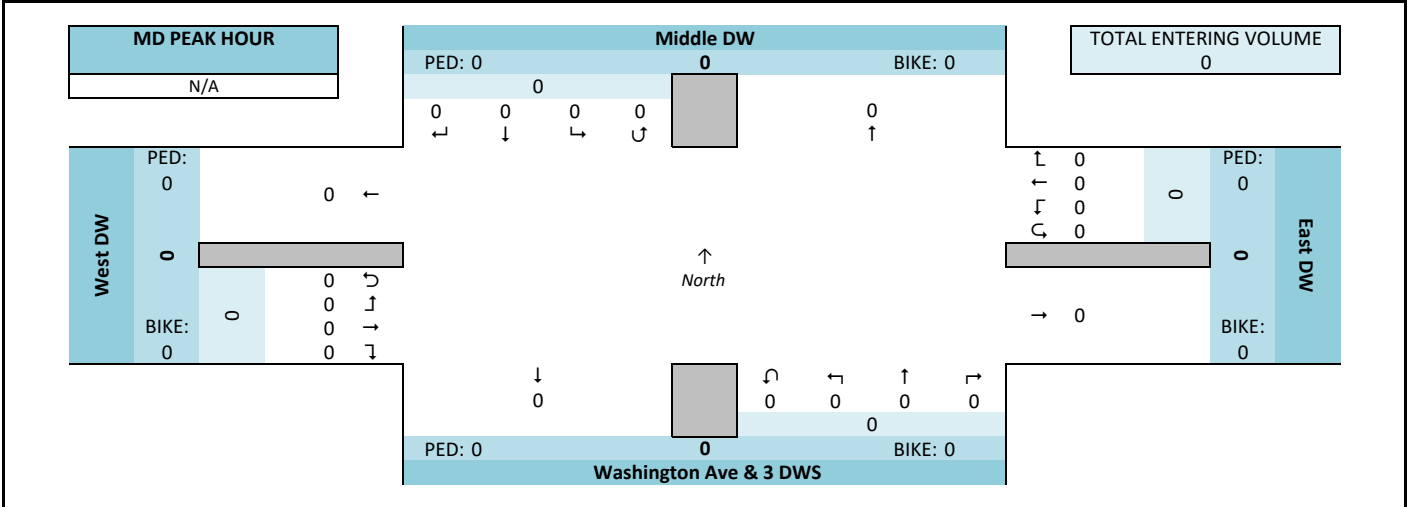
Washington Ave & 3 DWS



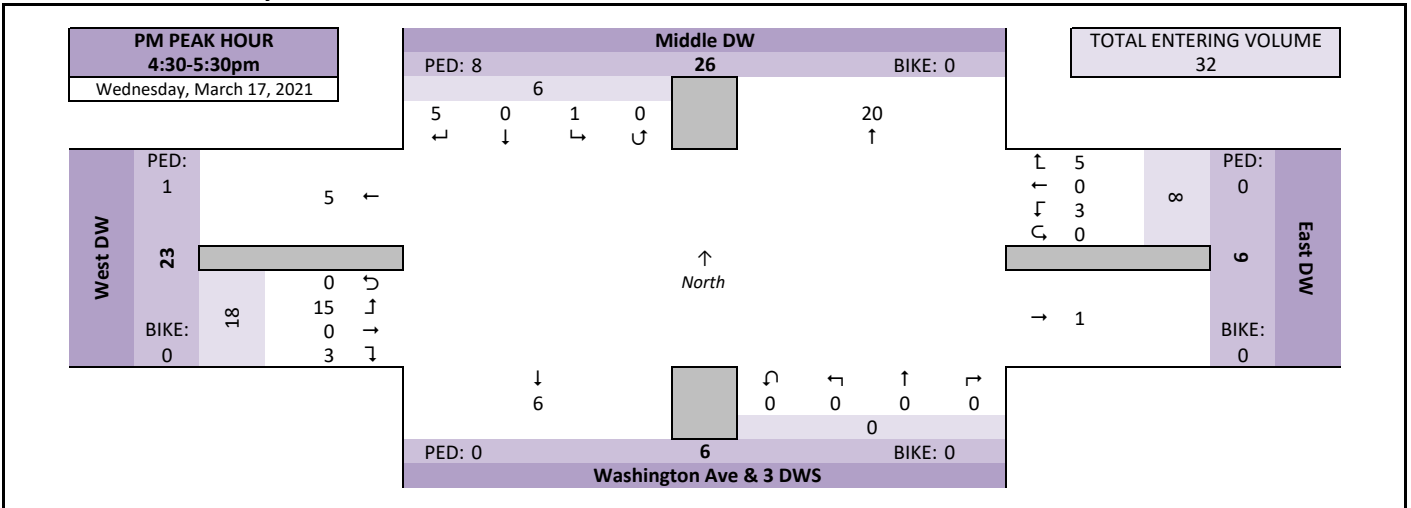
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

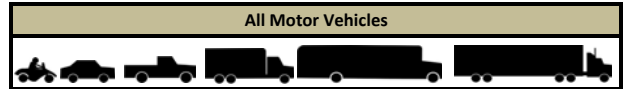


Intersection Traffic Volume Report

Count Basics		Page 3 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	4.75	Non-Holiday	No Special Events

Peak Hour Volume Summary

Washington Ave & 3 DWS



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		From North					From East					From South					From West					Totals
		Middle DW					East DW					Washington Ave & 3 DWS					West DW					
AM Peak Hour		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
Start Time																						
7:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
8:00 AM		3	0	0	0	3	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Volume		4	0	0	0	4	2	0	2	0	4	0	0	0	0	0	0	0	0	4	0	4
Rounded Hourly Volume		5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
% Single Unit Trucks		25.0	0.0	0.0	0.0	25.0	0.0	0.0	50.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
% Heavy Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)		25.0	0.0	0.0	0.0	25.0	0.0	0.0	50.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
Peak Hour Factor (PHF)		0.33	0.00	0.00	0.00	0.33	0.25	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.43

N/A		From North					From East					From South					From West					Totals
		Middle DW					East DW					Washington Ave & 3 DWS					West DW					
Midday (MD) Peak Hour		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
Start Time																						
12:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Volume		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rounded Hourly Volume		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single Unit Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Heavy Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Peak Hour Factor (PHF)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, March 17, 2021		From North					From East					From South					From West					Totals
		Middle DW					East DW					Washington Ave & 3 DWS					West DW					
PM Peak Hour		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
Start Time																						
4:30 PM		1	0	1	0	2	3	0	1	0	4	0	0	0	0	0	1	0	4	0	5	
4:45 PM		1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	1	0	6	0	7	
5:00 PM		2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	
5:15 PM		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0	4	
Peak Hour Volume		5	0	1	0	6	5	0	3	0	8	0	0	0	0	0	3	0	15	0	18	
Rounded Hourly Volume		5	0	0	0	5	5	0	5	0	10	0	0	0	0	0	5	0	15	0	20	
% Single Unit Trucks		20.0	0.0	0.0	0.0	16.7	20.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
% Heavy Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)		20.0	0.0	0.0	0.0	16.7	20.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
Peak Hour Factor (PHF)		0.62	0.00	0.25	0.00	0.75	0.42	0.00	0.37	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.62	0.00	0.64	0.73

Peak Hour Pedestrian and Bicyclist Volumes

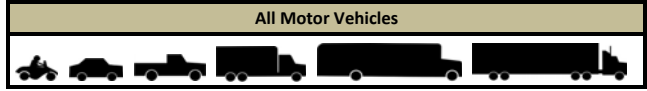
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Middle DW			East DW			Washington Ave & 3 DWS			West DW			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	0	0	0	0	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	4	0	4	0	0	0	0	0	0	0	0	0	4
	4:45 PM	2	0	2	0	0	0	0	0	0	1	0	1	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	2	0	2	0	0	0	0	0	0	0	0	0	2
	Total	8	0	8	0	0	0	0	0	0	1	0	1	9

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	4.75	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

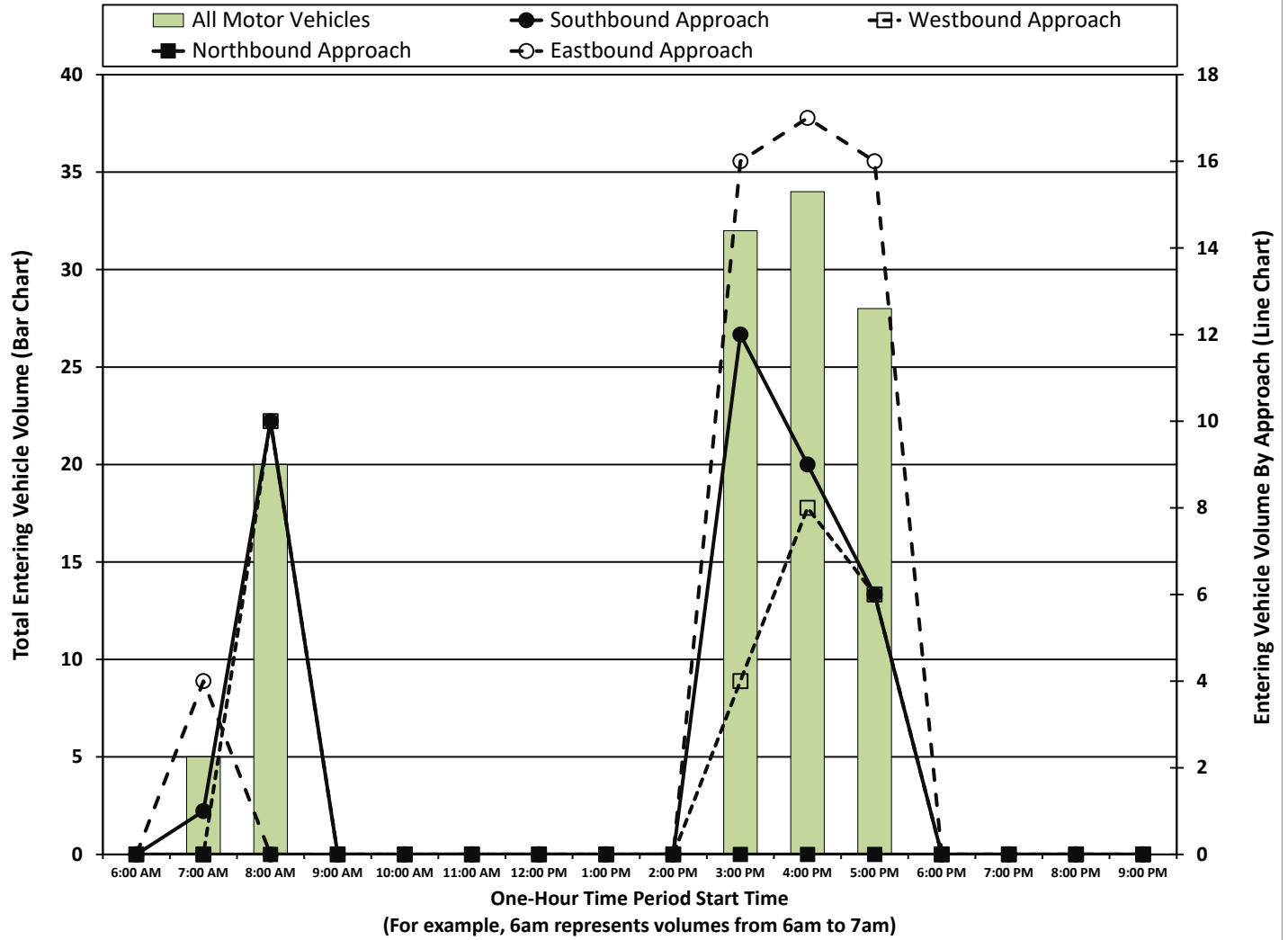
Washington Ave & 3 DWS



One-Hour Motor Vehicle Data

One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals						
	Middle DW					East DW					Washington Ave & 3 DWS					West DW						E/W	N/S					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total								
6:00 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	0	0	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	4	1
8:00 AM	10	0	0	0	10	4	0	6	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
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	0	0	0
10:00 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	0	0	0
11:00 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	0	0	0
12:00 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
1:00 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
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
3:00 PM	6	0	6	0	12	1	0	3	0	4	0	0	0	0	0	0	6	0	10	0	16	32	20	12				
4:00 PM	5	0	4	0	9	4	0	4	0	8	0	0	0	0	0	4	0	13	0	17	34	25	9					
5:00 PM	5	0	1	0	6	5	0	1	0	6	0	0	0	0	0	4	0	12	0	16	28	22	6					
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					
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Totals	27	0	11	0	38	14	0	14	0	28	0	0	0	0	0	14	0	39	0	53	119	81	38					

Graphical Summary of Hourly Volumes

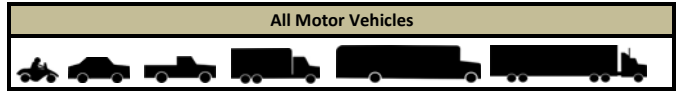


Intersection Traffic Volume Report

15-Minute Motor Vehicle Data

Washington Ave & 3 DWS

15-Minute Motor Vehicle Data



15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF																																																																																																																																											
	Middle DW					East DW					Washington Ave & 3 DWS					West DW																																																																																																																																																		
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total																																																																																																																																														
AM Peak Period	6:00 AM					6:15 AM					6:30 AM					6:45 AM					7:00 AM					7:15 AM					7:30 AM					7:45 AM					8:00 AM					8:15 AM					8:30 AM					8:45 AM					9:00 AM					9:15 AM					9:30 AM					9:45 AM																																																																																						
Midday Peak Period	10:00 AM					10:15 AM					10:30 AM					10:45 AM					11:00 AM					11:15 AM					11:30 AM					11:45 AM					12:00 PM					12:15 PM					12:30 PM					12:45 PM					1:00 PM					1:15 PM					1:30 PM					1:45 PM																																																																																						
PM Peak Period	2:00 PM					2:15 PM					2:30 PM					2:45 PM					3:00 PM					3:15 PM					3:30 PM					3:45 PM					4:00 PM					4:15 PM					4:30 PM					4:45 PM					5:00 PM					5:15 PM					5:30 PM					5:45 PM					6:00 PM					6:15 PM					6:30 PM					6:45 PM					7:00 PM					7:15 PM					7:30 PM					7:45 PM					8:00 PM					8:15 PM					8:30 PM					8:45 PM					9:00 PM					9:15 PM					9:30 PM					9:45 PM						
Totals	27	0	11	0	38	14	0	14	0	28	0	0	0	0	0	14	0	39	0	53	119																																																																																																																																													

Peak Hour All Vehicle Volume Summary

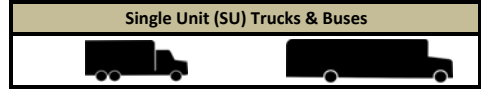
Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume	PHF
	Middle DW					East DW					Washington Ave & 3 DWS					West DW						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:15 AM					7:30 AM					7:45 AM					8:00 AM					12	0.43
MD	12:00 PM																				0	
PM	4:30 PM																				32	0.73

Intersection Traffic Volume Report

Count Basics			Page 7 of 13
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	4.75	Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Washington Ave & 3 DWS



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	Middle DW					East DW					Washington Ave & 3 DWS					West DW						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	[AM Peak Period Data Rows]																					
Midday Peak Period	[Midday Peak Period Data Rows]																					
PM Peak Period	[PM Peak Period Data Rows]																					
Totals	2 0 1 0 3					2 0 1 0 3					3 0 0 0 0					1 0 0 0 0					1	7

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	Middle DW					East DW					Washington Ave & 3 DWS					West DW					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:15 AM	1 0 0 0 1					0 0 1 0 1					0 0 0 0 0					0 0 0 0 0					2
MD 12:00 PM	0 0 0 0 0					0 0 0 0 0					0 0 0 0 0					0 0 0 0 0					0
PM 4:30 PM	1 0 0 0 1					1 0 0 0 1					0 0 0 0 0					0 0 0 0 0					2

Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

Washington Ave & 3 DWS



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	Middle DW			East DW			Washington Ave & 3 DWS			West DW				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	2	
6:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	
6:30 AM	2	0	2	0	0	0	0	0	0	0	0	0	2	
6:45 AM	3	0	3	1	0	1	0	0	0	0	0	0	4	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
3:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	12
3:45 PM	3	0	3	0	0	0	0	0	0	0	0	0	3	14
4:00 PM	1	0	1	0	0	0	0	0	1	0	1	2	14	14
4:15 PM	5	0	5	0	0	0	0	0	0	0	0	5	12	12
4:30 PM	4	0	4	0	0	0	0	0	0	0	0	4	9	9
4:45 PM	2	0	2	0	0	0	0	0	1	0	1	3	9	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:15 PM	2	0	2	0	0	0	0	0	0	0	0	2	2	
5:30 PM	2	1	3	1	0	1	0	0	0	0	0	4	4	
5:45 PM	1	1	2	0	0	0	0	0	0	0	0	2	2	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	31	2	33	3	0	3	0	0	0	2	0	2	38	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

15-Minute Adult & Children Count (Manual Entry)

Washington Ave & 3 DWS



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	Middle DW			East DW			Washington Ave & 3 DWS			West DW				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
6:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	2	9
6:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	7
6:30 AM	2	0	2	0	0	0	0	0	0	0	0	0	2	6
6:45 AM	3	0	3	1	0	1	0	0	0	0	0	0	4	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
3:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	12
3:45 PM	3	0	3	0	0	0	0	0	0	0	0	0	3	14
4:00 PM	1	0	1	0	0	0	0	0	1	0	1	2	2	14
4:15 PM	5	0	5	0	0	0	0	0	0	0	0	5	5	12
4:30 PM	4	0	4	0	0	0	0	0	0	0	0	4	4	9
4:45 PM	2	0	2	0	0	0	0	0	1	0	1	3	3	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	2	0	2	0	0	0	0	0	0	0	0	2	2	6
5:30 PM	2	0	2	1	0	1	0	0	0	0	0	3	3	4
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	1	1	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	31	0	31	3	0	3	0	0	0	2	0	2	36	

Intersection Traffic Volume Report

15-Minute Bicycle Turning Movement Count (Manual Entry)

Washington Ave & 3 DWS



15-Minute Bicycle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	Middle DW					East DW					Washington Ave & 3 DWS					West DW						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
6:00 AM					0					0					0					0	0	
6:15 AM					0					0					0					0	0	
6:30 AM					0					0					0					0	0	
6:45 AM					0					0					0					0	0	
7:00 AM					0					0					0					0	0	
7:15 AM					0					0					0					0	0	
7:30 AM					0					0					0					0	0	
7:45 AM					0					0					0					0	0	
8:00 AM					0					0					0					0	0	
8:15 AM					0					0					0					0	0	
8:30 AM					0					0					0					0	0	
8:45 AM					0					0					0					0	0	
9:00 AM					0					0					0					0	0	
9:15 AM					0					0					0					0	0	
9:30 AM					0					0					0					0	0	
9:45 AM					0					0					0					0	0	
10:00 AM					0					0					0					0	0	
10:15 AM					0					0					0					0	0	
10:30 AM					0					0					0					0	0	
10:45 AM					0					0					0					0	0	
11:00 AM					0					0					0					0	0	
11:15 AM					0					0					0					0	0	
11:30 AM					0					0					0					0	0	
11:45 AM					0					0					0					0	0	
12:00 PM					0					0					0					0	0	
12:15 PM					0					0					0					0	0	
12:30 PM					0					0					0					0	0	
12:45 PM					0					0					0					0	0	
1:00 PM					0					0					0					0	0	
1:15 PM					0					0					0					0	0	
1:30 PM					0					0					0					0	0	
1:45 PM					0					0					0					0	0	
2:00 PM					0					0					0					0	0	
2:15 PM					0					0					0					0	0	
2:30 PM					0					0					0					0	0	
2:45 PM					0					0					0					0	0	
3:00 PM					0					0					0					0	0	
3:15 PM					0					0					0					0	0	
3:30 PM					0					0					0					0	0	
3:45 PM					0					0					0					0	0	
4:00 PM					0					0					0					0	0	
4:15 PM					0					0					0					0	0	
4:30 PM					0					0					0					0	0	
4:45 PM					0					0					0					0	0	
5:00 PM					0					0					0					0	0	
5:15 PM					0					0					0					0	0	
5:30 PM					0					0					0					0	0	
5:45 PM					0					0					0					0	0	
6:00 PM					0					0					0					0	0	
6:15 PM					0					0					0					0	0	
6:30 PM					0					0					0					0	0	
6:45 PM					0					0					0					0	0	
7:00 PM					0					0					0					0	0	
7:15 PM					0					0					0					0	0	
7:30 PM					0					0					0					0	0	
7:45 PM					0					0					0					0	0	
8:00 PM					0					0					0					0	0	
8:15 PM					0					0					0					0	0	
8:30 PM					0					0					0					0	0	
8:45 PM					0					0					0					0	0	
9:00 PM					0					0					0					0	0	
9:15 PM					0					0					0					0	0	
9:30 PM					0					0					0					0	0	
9:45 PM					0					0					0					0	0	
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	Middle DW					East DW					Washington Ave & 3 DWS					West DW					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		Version 2013.J4.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	5.25	Non-Holiday	No Special Events		

Base Information, Observed (5.25) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **N 1st Street & 2 DWs**

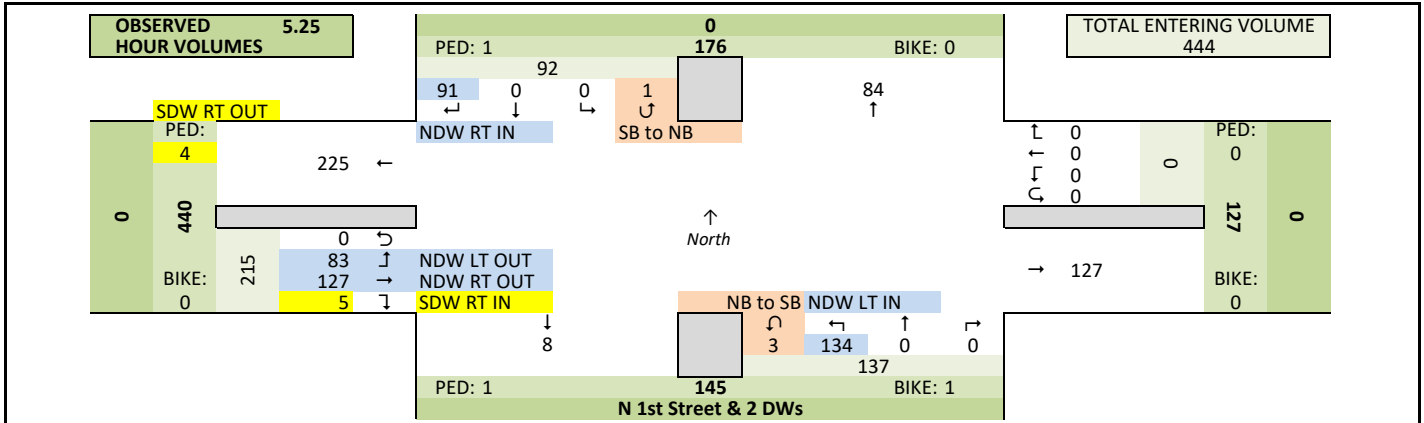
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg			
East Leg			
South Leg	N 1st Street & 2 DWs		
West Leg			
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

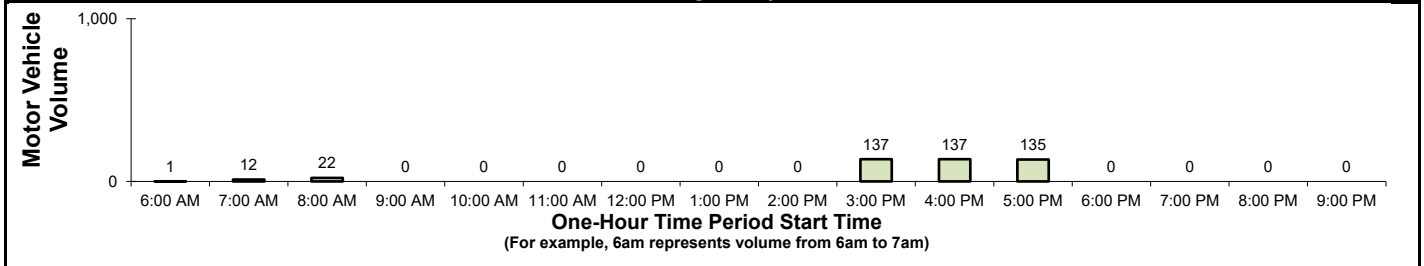
Count Information

Hrs Counted:	6:45 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021	Weather	
AM Peak Period	Thursday, March 18, 2021	Clear & Dry	
Midday Peak Period	Wednesday, March 17, 2021	Clear & Dry	
PM Peak Period	Wednesday, March 17, 2021	Overcast & Wet	
Calculated Peak Hours			
AM	8:00-9:00am	MD	PM 3:45-4:45pm
Peak Hours Selected for Analysis			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI, Inc.	Manual Adj.	1.000
Observers	AM Peak Period	Amy Scheuerlein - Video Counts	
	Midday Peak Period	None	
	PM Peak Period	Amy Scheuerlein - Video Counts	
Comments	2019 DOT Seasonal Factors		

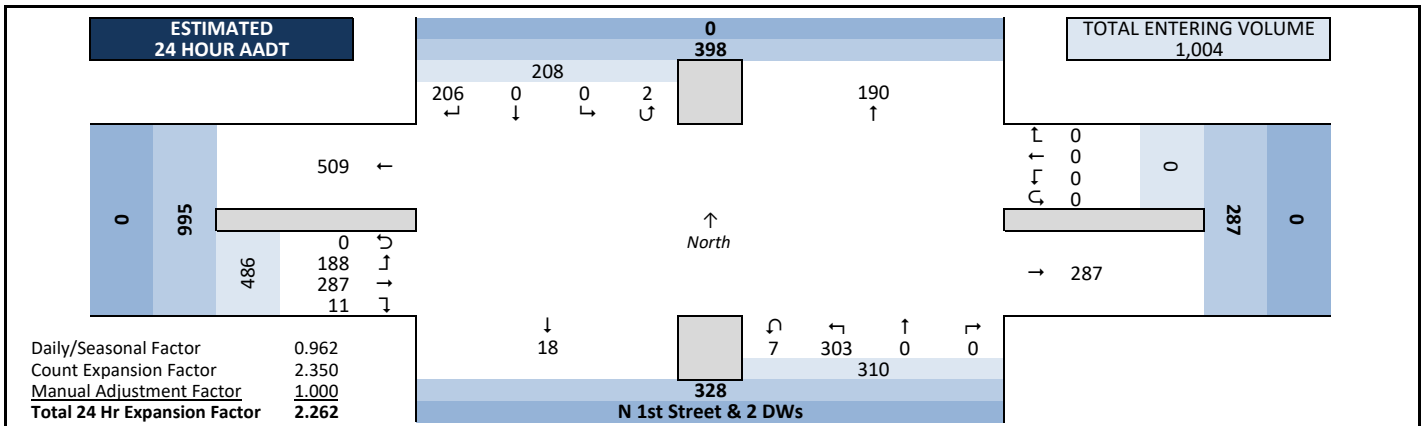
Observed 5.25 Hour Volume Summary



Total Entering Hourly Volume



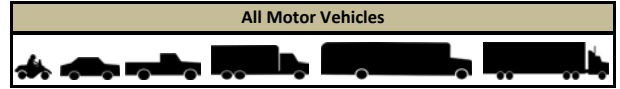
Estimated 24 Hour AADT



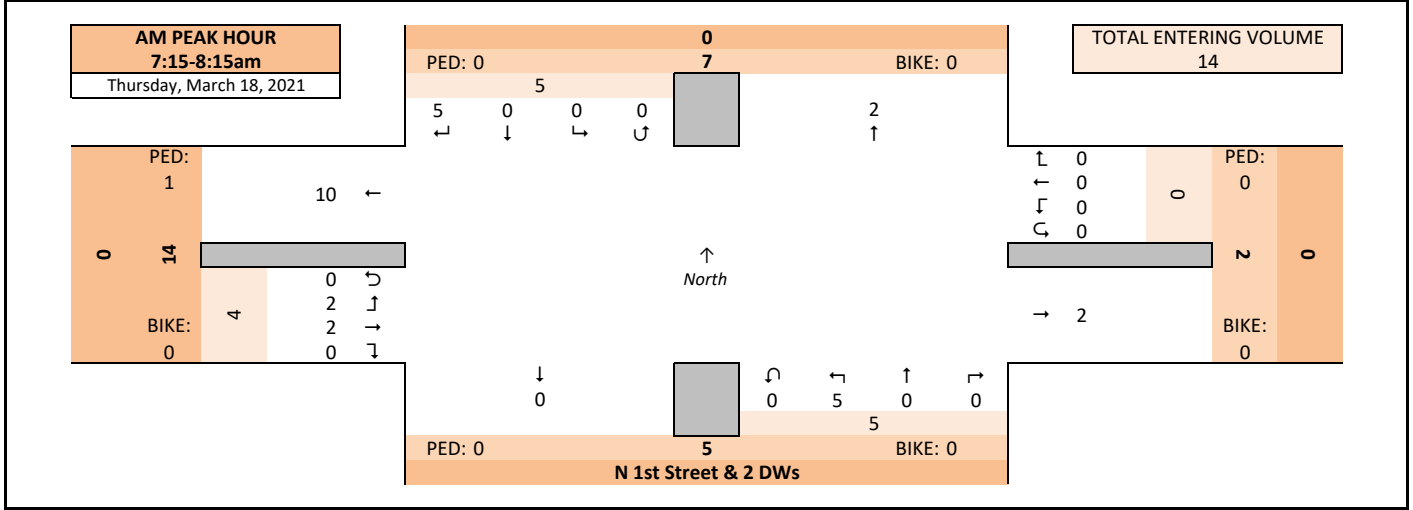
Intersection Traffic Volume Report

Peak Hour Volume Graphical Summary

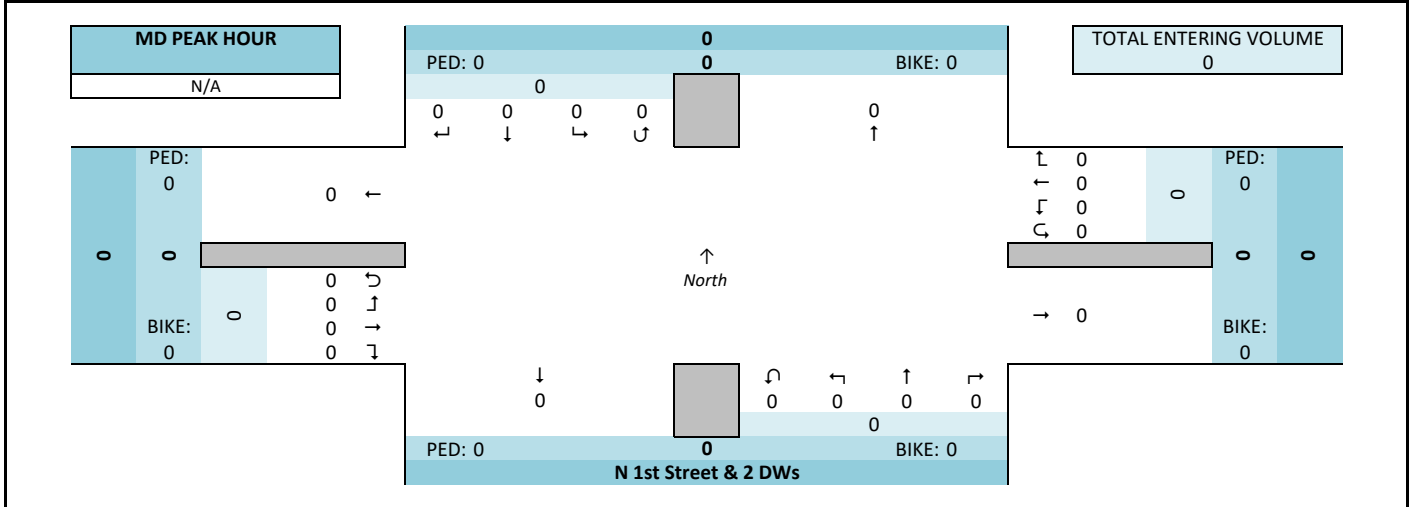
N 1st Street & 2 DWs



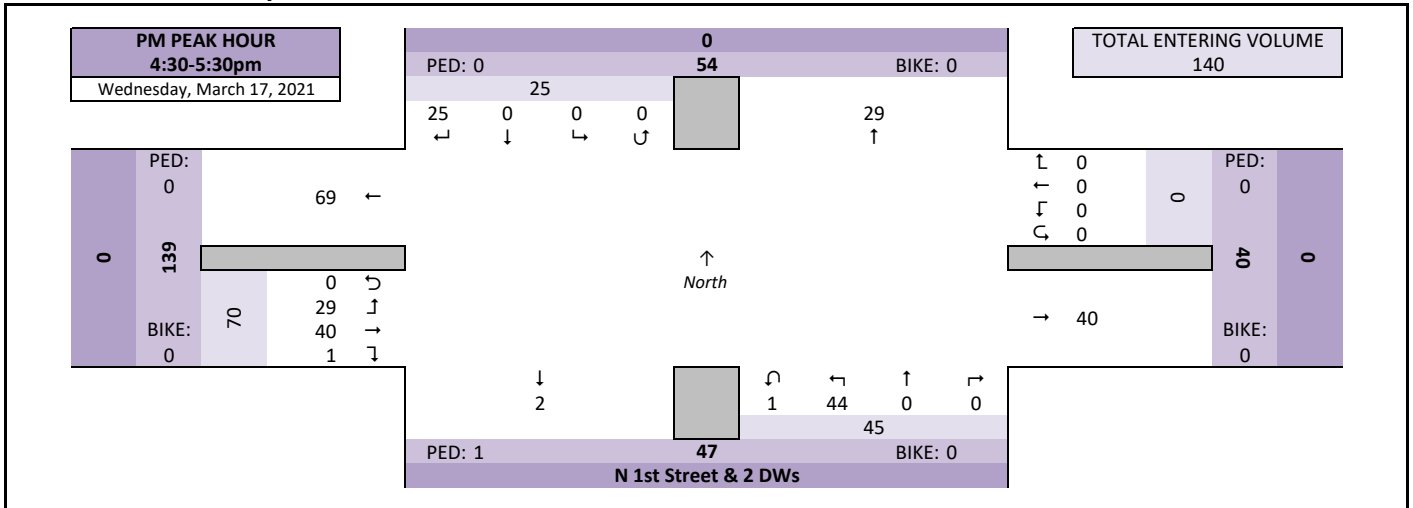
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

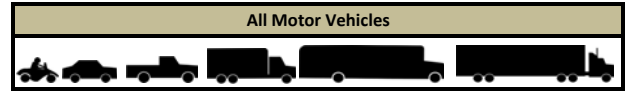


Intersection Traffic Volume Report

Count Basics		Page 3 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	5.25	Non-Holiday	No Special Events

Peak Hour Volume Summary

N 1st Street & 2 DWs



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		From North					From East					From South					From West					Totals	
		0					0					N 1st Street & 2 DWs					0						
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	1	0	1	5
	7:30 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
	7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	
	8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3
	Peak Hour Volume	5	0	0	0	5	0	0	0	0	0	0	0	5	0	5	0	2	2	0	4	14	
	Rounded Hourly Volume	5	0	0	0	5	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	10	
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.42	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.31	0.00	0.25	0.50	0.00	0.50	0.70		

N/A		From North					From East					From South					From West					Totals	
		0					0					N 1st Street & 2 DWs					0						
Midday (MD) Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Wednesday, March 17, 2021		From North					From East					From South					From West					Totals
		0					0					N 1st Street & 2 DWs					0					
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	4:30 PM	5	0	0	0	5	0	0	0	0	0	0	0	16	0	16	1	11	8	0	20	41
	4:45 PM	5	0	0	0	5	0	0	0	0	0	0	0	8	0	8	0	7	7	0	14	27
	5:00 PM	9	0	0	0	9	0	0	0	0	0	0	0	10	1	11	0	11	7	0	18	38
	5:15 PM	6	0	0	0	6	0	0	0	0	0	0	0	10	0	10	0	11	7	0	18	34
	Peak Hour Volume	25	0	0	0	25	0	0	0	0	0	0	0	44	1	45	1	40	29	0	70	140
	Rounded Hourly Volume	25	0	0	0	25	0	0	0	0	0	0	0	45	0	45	0	40	30	0	70	140
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.2	0.0	2.5	0.0	0.0	1.4	1.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (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	2.3	0.0	2.2	0.0	2.5	0.0	0.0	1.4	1.4
Peak Hour Factor (PHF)	0.69	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.25	0.70	0.25	0.91	0.91	0.00	0.87	0.85	

Peak Hour Pedestrian and Bicyclist Volumes

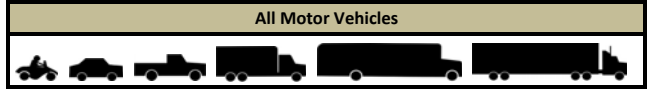
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		0			0			N 1st Street & 2 DWs			0			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
	AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
		7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
		7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
		8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1
		Total	0	0	0	0	0	0	0	0	0	1	0	1
	MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
		12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
		12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
		12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	1	0	1	0	0	0	

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	5.25	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

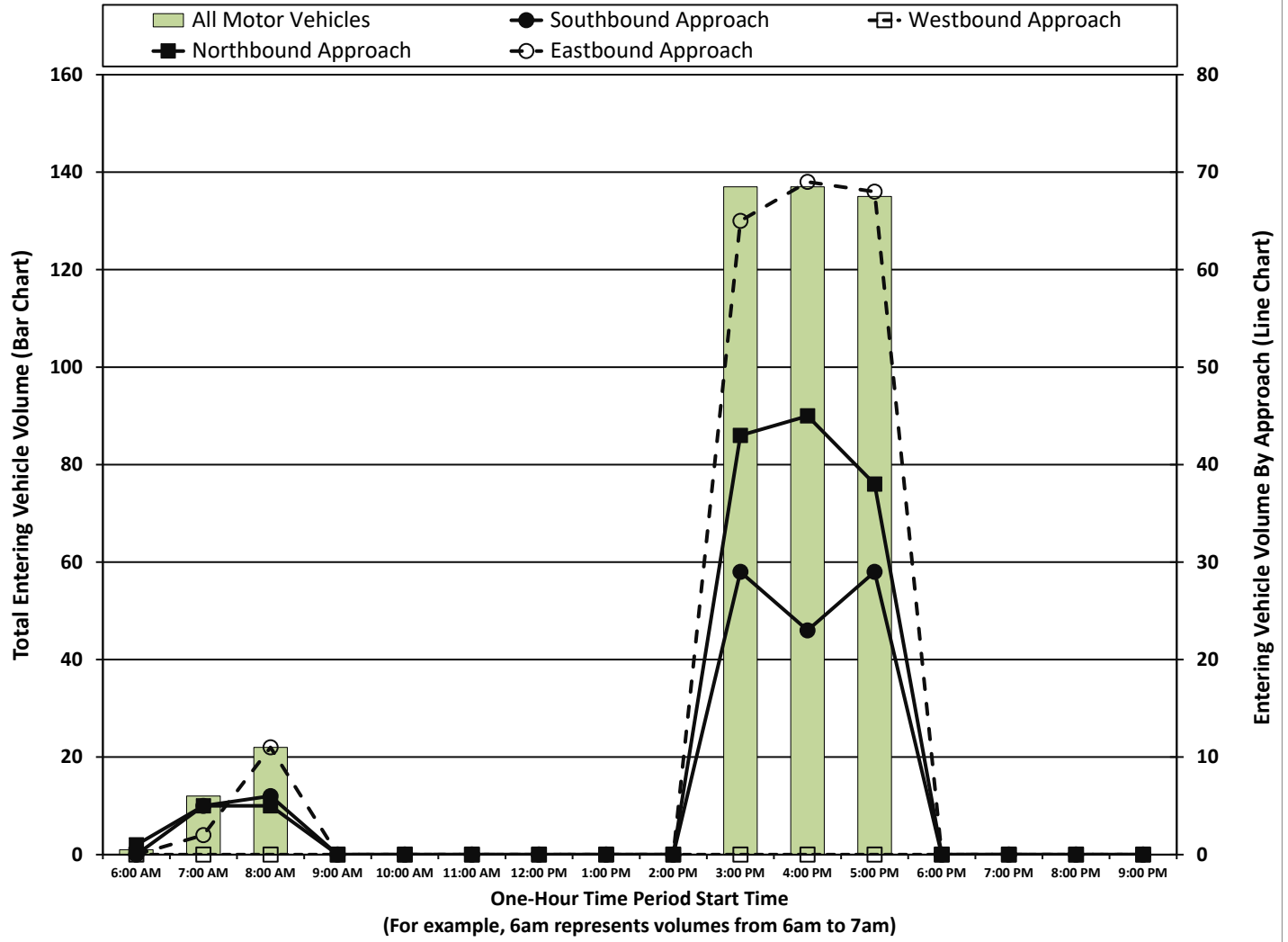
N 1st Street & 2 DWs



One-Hour Motor Vehicle Data

One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals	
	0					0					N 1st Street & 2 DWs					0						E/W	N/S
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
7:00 AM	5	0	0	0	5	0	0	0	0	0	0	0	5	0	5	0	0	0	2	0	2	2	10
8:00 AM	6	0	0	0	6	0	0	0	0	0	0	0	5	0	5	1	6	4	0	11	22	11	11
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
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
3:00 PM	29	0	0	0	29	0	0	0	0	0	0	0	42	1	43	1	35	29	0	65	137	65	72
4:00 PM	23	0	0	0	23	0	0	0	0	0	0	0	45	0	45	2	41	26	0	69	137	69	68
5:00 PM	28	0	0	1	29	0	0	0	0	0	0	0	36	2	38	1	45	22	0	68	135	68	67
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
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	91	0	0	1	92	0	0	0	0	0	0	0	134	3	137	5	127	83	0	215	444	215	229

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

N 1st Street & 2 DWs



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	0			0			N 1st Street & 2 DWs			0				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	1	1	2	0	2	3	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	0	0	0	0	0	0	1	0	1	1	1	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	1	0	1	0	0	0	1	1	2	4	0	4	7	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

15-Minute Adult & Children Count (Manual Entry)

N 1st Street & 2 DWs



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Start Time	N 1st Street & 2 DWs													
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	2	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	1	0	1	0	0	0	1	0	1	4	0	4	6	

Intersection Traffic Volume Report

15-Minute Bicycle Turning Movement Count (Manual Entry)

N 1st Street & 2 DWs



15-Minute Bicycle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Start Time	0					0					N 1st Street & 2 DWs					0						
6:00 AM					0					0					0					0	0	0
6:15 AM					0					0					0					0	0	0
6:30 AM					0					0					0					0	0	0
6:45 AM					0					0					0					0	0	0
7:00 AM					0					0					0					0	0	0
7:15 AM					0					0					0					0	0	0
7:30 AM					0					0					0					0	0	0
7:45 AM					0					0					0					0	0	0
8:00 AM					0					0					0					0	0	0
8:15 AM					0					0					0					0	0	0
8:30 AM					0					0					0					0	0	0
8:45 AM					0					0					0					0	0	0
9:00 AM					0					0					0					0	0	0
9:15 AM					0					0					0					0	0	0
9:30 AM					0					0					0					0	0	0
9:45 AM					0					0					0					0	0	0
10:00 AM					0					0					0					0	0	0
10:15 AM					0					0					0					0	0	0
10:30 AM					0					0					0					0	0	0
10:45 AM					0					0					0					0	0	0
11:00 AM					0					0					0					0	0	0
11:15 AM					0					0					0					0	0	0
11:30 AM					0					0					0					0	0	0
11:45 AM					0					0					0					0	0	0
12:00 PM					0					0					0					0	0	0
12:15 PM					0					0					0					0	0	0
12:30 PM					0					0					0					0	0	0
12:45 PM					0					0					0					0	0	0
1:00 PM					0					0					0					0	0	0
1:15 PM					0					0					0					0	0	0
1:30 PM					0					0					0					0	0	0
1:45 PM					0					0					0					0	0	0
2:00 PM					0					0					0					0	0	0
2:15 PM					0					0					0					0	0	0
2:30 PM					0					0					0					0	0	0
2:45 PM					0					0					0					0	0	0
3:00 PM					0					0					0					0	0	0
3:15 PM					0					0					0					0	0	0
3:30 PM					0					0					0					0	0	0
3:45 PM					0					0					0					0	0	0
4:00 PM					0					0					0					0	0	0
4:15 PM					0					0					0					0	0	0
4:30 PM					0					0					0					0	0	0
4:45 PM					0					0					0					0	0	0
5:00 PM					0					0					0					0	0	0
5:15 PM					0					0					0					0	0	0
5:30 PM					0					0					0					0	0	0
5:45 PM					0					0					0					0	0	0
6:00 PM					0					0					0					0	0	0
6:15 PM					0					0					0					0	0	0
6:30 PM					0					0					0					0	0	0
6:45 PM					0					0					0					0	0	0
7:00 PM					0					0					0					0	0	0
7:15 PM					0					0					0					0	0	0
7:30 PM					0					0					0					0	0	0
7:45 PM					0					0					0					0	0	0
8:00 PM					0					0					0					0	0	0
8:15 PM					0					0					0					0	0	0
8:30 PM					0					0					0					0	0	0
8:45 PM					0					0					0					0	0	0
9:00 PM					0					0					0					0	0	0
9:15 PM					0					0					0					0	0	0
9:30 PM					0					0					0					0	0	0
9:45 PM					0					0					0					0	0	0
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **E Johnson Street and N 1st Street**

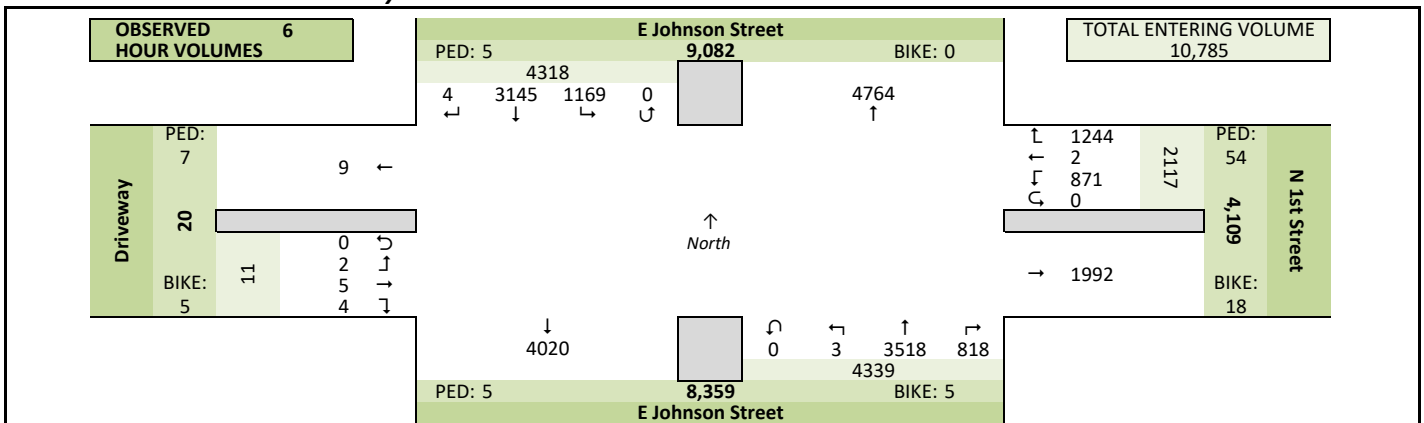
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	E Johnson Street		
East Leg	N 1st Street		
South Leg	E Johnson Street		
West Leg	Driveway		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

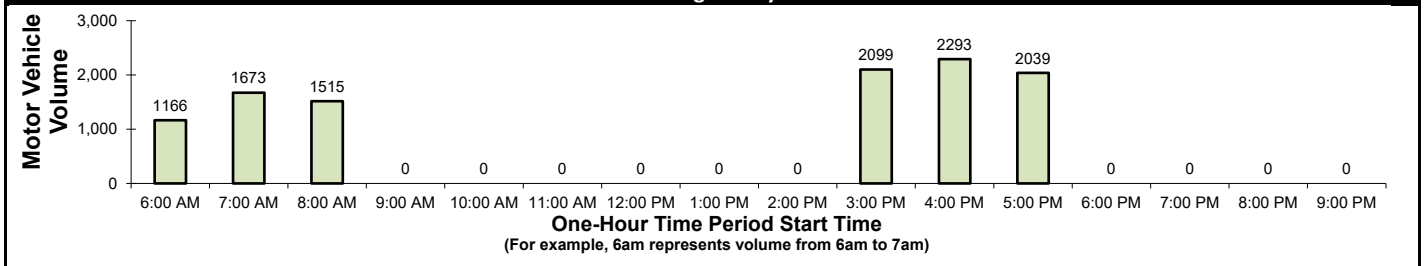
Count Information

Hrs Counted:	6:00 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021	Weather	
AM Peak Period	Thursday, March 18, 2021	Clear & Dry	
Midday Peak Period	Wednesday, March 17, 2021		
PM Peak Period	Wednesday, March 17, 2021	Overcast & Wet	
Calculated Peak Hours			
AM	7:00-8:00am	MD	PM 4:30-5:30pm
Peak Hours Selected for Analysis			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI	Manual Adj.	1.000
Observers	AM Peak Period	Video Count	
	Midday Peak Period		
	PM Peak Period	Video Count	
Comments	2019 DOT Seasonal Factors		

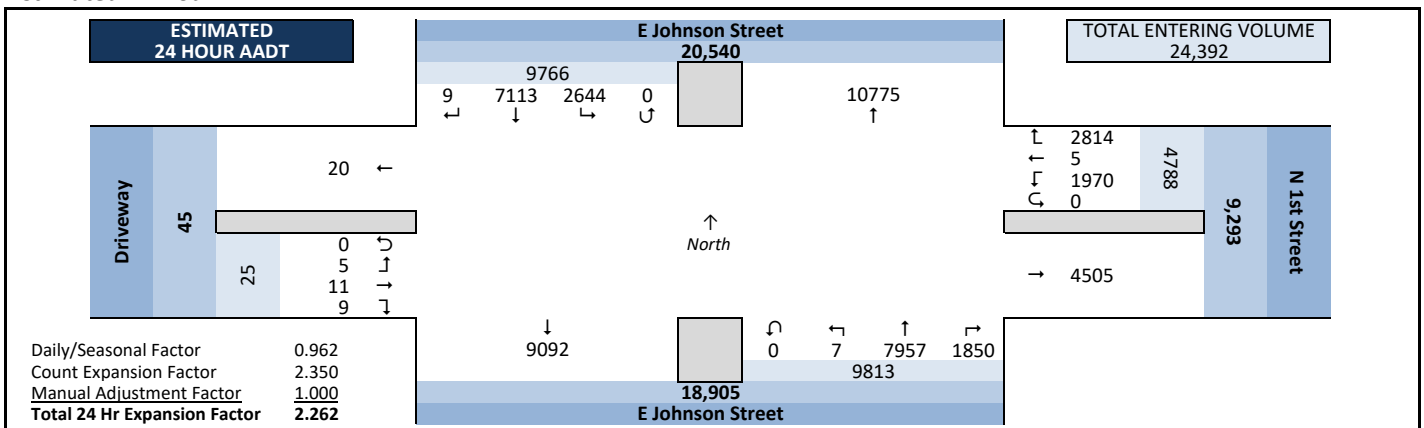
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



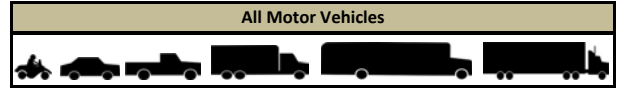
Estimated 24 Hour AADT



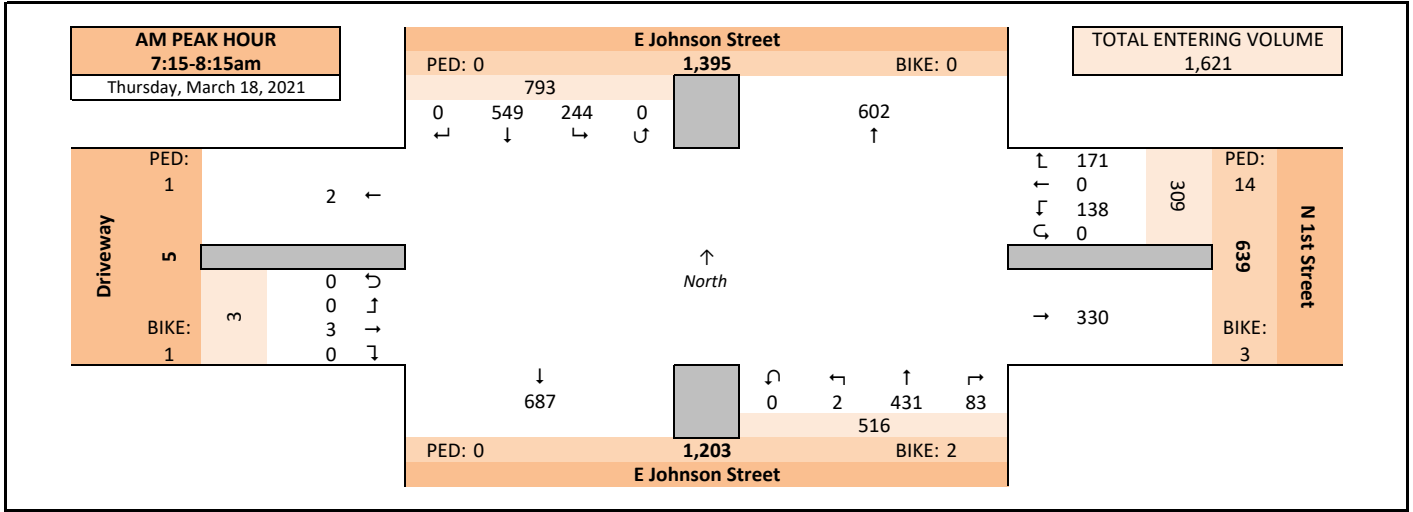
Intersection Traffic Volume Report

Peak Hour Volume Graphical Summary

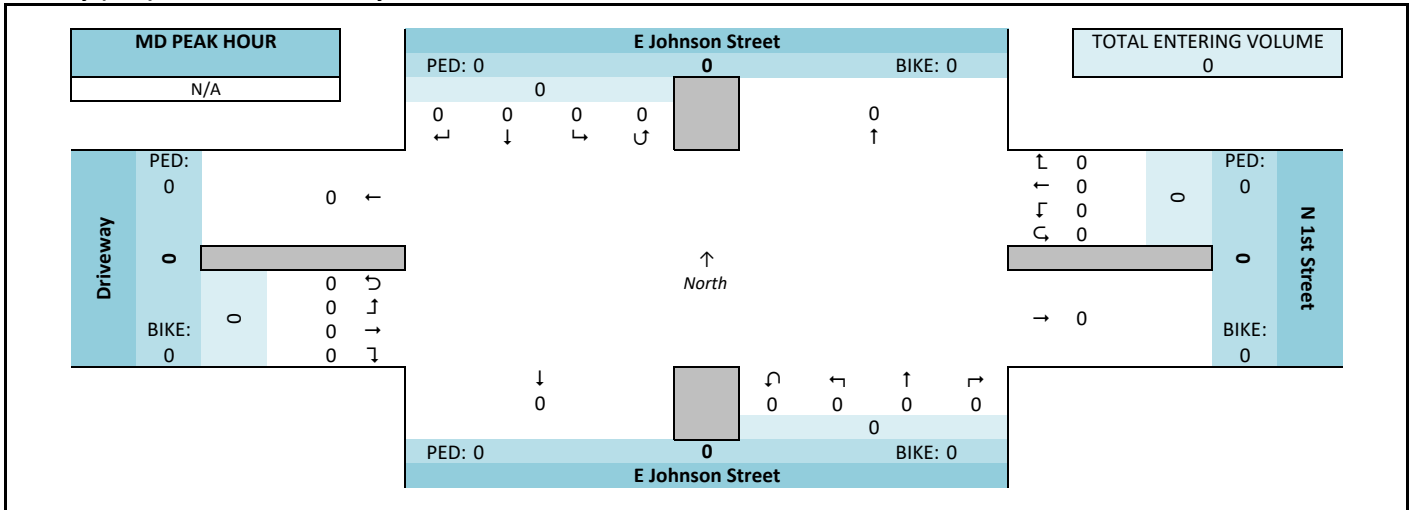
E Johnson Street and N 1st Street



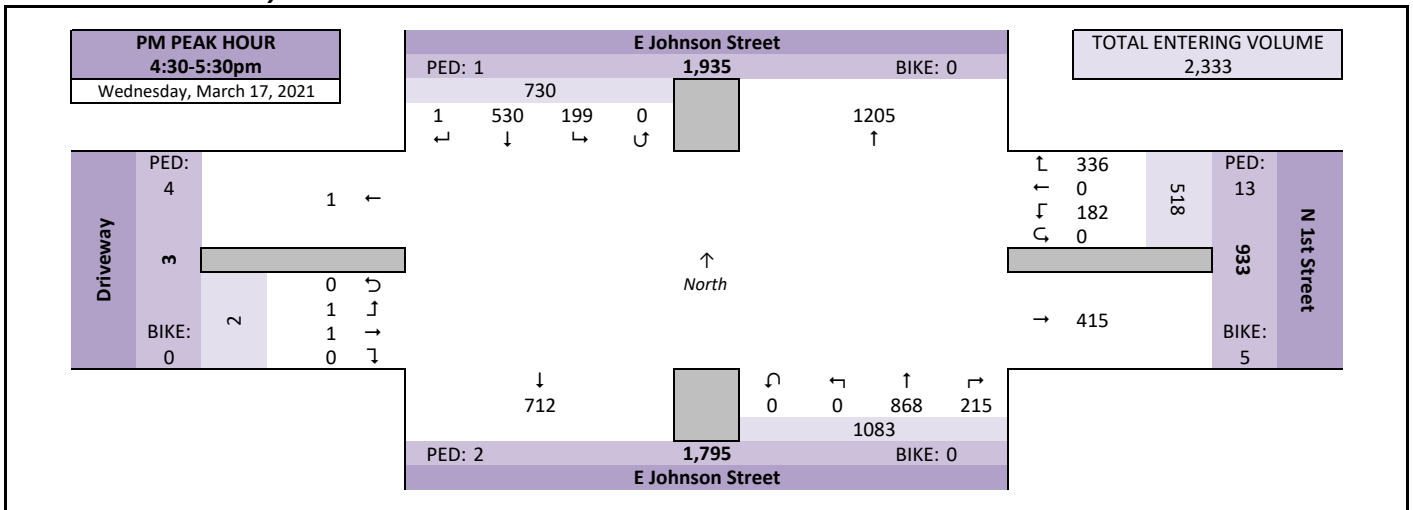
AM Peak Hour Summary



Middy (MD) Peak Hour Summary



PM Peak Hour Summary

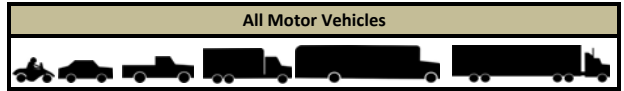


Intersection Traffic Volume Report

Peak Hour Volume Summary

E Johnson Street and N 1st Street

Count Basics	Page 3 of 13		
Start Date: Wednesday, March 17, 2021	Weekday	Schools in Session	
Total Number of Hours Counted: 6	Non-Holiday	No Special Events	



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		↓ From North					← From East					↑ From South					→ From West					
AM Peak Hour	Start Time	E Johnson Street					N 1st Street					E Johnson Street					Driveway					Totals
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
7:15 AM		0	150	58	0	208	48	0	41	0	89	14	92	1	0	107	0	0	0	0	0	404
7:30 AM		0	130	56	0	186	41	0	27	0	68	24	122	0	0	146	0	0	2	0	0	402
7:45 AM		0	156	82	0	238	48	0	34	0	82	33	127	1	0	161	0	0	0	0	0	481
8:00 AM		0	113	48	0	161	34	0	36	0	70	12	90	0	0	102	0	1	0	0	1	334
Peak Hour Volume		0	549	244	0	793	171	0	138	0	309	83	431	2	0	516	0	3	0	0	3	1621
Rounded Hourly Volume		0	550	245	0	795	170	0	140	0	310	85	430	0	0	515	0	5	0	0	5	1625
% Single Unit Trucks		0.0	4.2	5.3	0.0	4.5	7.6	0.0	6.5	0.0	7.1	3.6	4.6	0.0	0.0	4.5	0.0	100.0	0.0	0.0	0.0	5.2
% Heavy Trucks		0.0	0.2	0.4	0.0	0.3	0.0	0.0	0.7	0.0	0.3	2.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.3
% Trucks (Total)		0.0	4.4	5.7	0.0	4.8	7.6	0.0	7.2	0.0	7.4	6.0	4.6	0.0	0.0	4.8	0.0	100.0	0.0	0.0	100.0	5.5
Peak Hour Factor (PHF)		0.00	0.88	0.74	0.00	0.83	0.89	0.00	0.84	0.00	0.87	0.63	0.85	0.50	0.00	0.80	0.00	0.37	0.00	0.00	0.37	0.84

N/A		↓ From North					← From East					↑ From South					→ From West					
Midday (MD) Peak Hour	Start Time	E Johnson Street					N 1st Street					E Johnson Street					Driveway					Totals
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
12:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Volume		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rounded Hourly Volume		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single Unit Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Heavy Trucks		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Peak Hour Factor (PHF)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, March 17, 2021		↓ From North					← From East					↑ From South					→ From West					
PM Peak Hour	Start Time	E Johnson Street					N 1st Street					E Johnson Street					Driveway					Totals
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
4:30 PM		1	135	39	0	175	81	0	47	0	128	36	224	0	0	260	0	0	0	0	0	563
4:45 PM		0	143	57	0	200	92	0	40	0	132	57	212	0	0	269	0	0	1	0	1	602
5:00 PM		0	119	46	0	165	81	0	53	0	134	58	219	0	0	277	0	1	0	0	1	577
5:15 PM		0	133	57	0	190	82	0	42	0	124	64	213	0	0	277	0	0	0	0	0	591
Peak Hour Volume		1	530	199	0	730	336	0	182	0	518	215	868	0	0	1083	0	1	1	0	2	2333
Rounded Hourly Volume		0	530	200	0	730	335	0	180	0	515	215	870	0	0	1085	0	0	0	0	0	2330
% Single Unit Trucks		100.0	2.1	1.0	0.0	1.9	1.8	0.0	0.5	0.0	1.4	0.0	1.0	0.0	0.0	0.8	0.0	0.0	100.0	0.0	50.0	1.3
% Heavy Trucks		0.0	0.0	0.5	0.0	0.1	0.3	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
% Trucks (Total)		100.0	2.1	1.5	0.0	2.1	2.1	0.0	0.5	0.0	1.5	0.5	1.0	0.0	0.0	0.9	0.0	0.0	100.0	0.0	50.0	1.5
Peak Hour Factor (PHF)		0.25	0.93	0.87	0.00	0.91	0.91	0.00	0.86	0.00	0.97	0.84	0.97	0.00	0.00	0.98	0.00	0.25	0.25	0.00	0.50	0.97

Peak Hour Pedestrian and Bicyclist Volumes

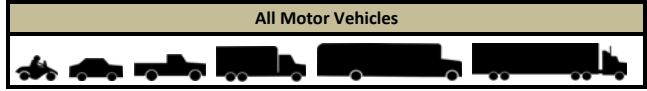
Pedestrians and Bicyclists		Crossing			Crossing			Crossing			Crossing			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
		E Johnson Street			N 1st Street			E Johnson Street			Driveway			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	5	0	5	0	1	1	0	0	0	6
7:30 AM		0	0	0	6	0	6	0	0	0	0	0	0	6
7:45 AM		0	0	0	3	2	5	0	0	0	0	0	0	5
8:00 AM		0	0	0	0	1	1	0	1	1	1	1	2	4
Total		0	0	0	14	3	17	0	2	2	1	1	2	21
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	1	2	3	0	0	0	0	0	0	3
4:45 PM		1	0	1	6	2	8	1	0	1	4	0	4	14
5:00 PM		0	0	0	5	1	6	0	0	0	0	0	0	6
5:15 PM		0	0	0	1	0	1	1	0	1	0	0	0	2
Total		1	0	1	13	5	18	2	0	2	4	0	4	25

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

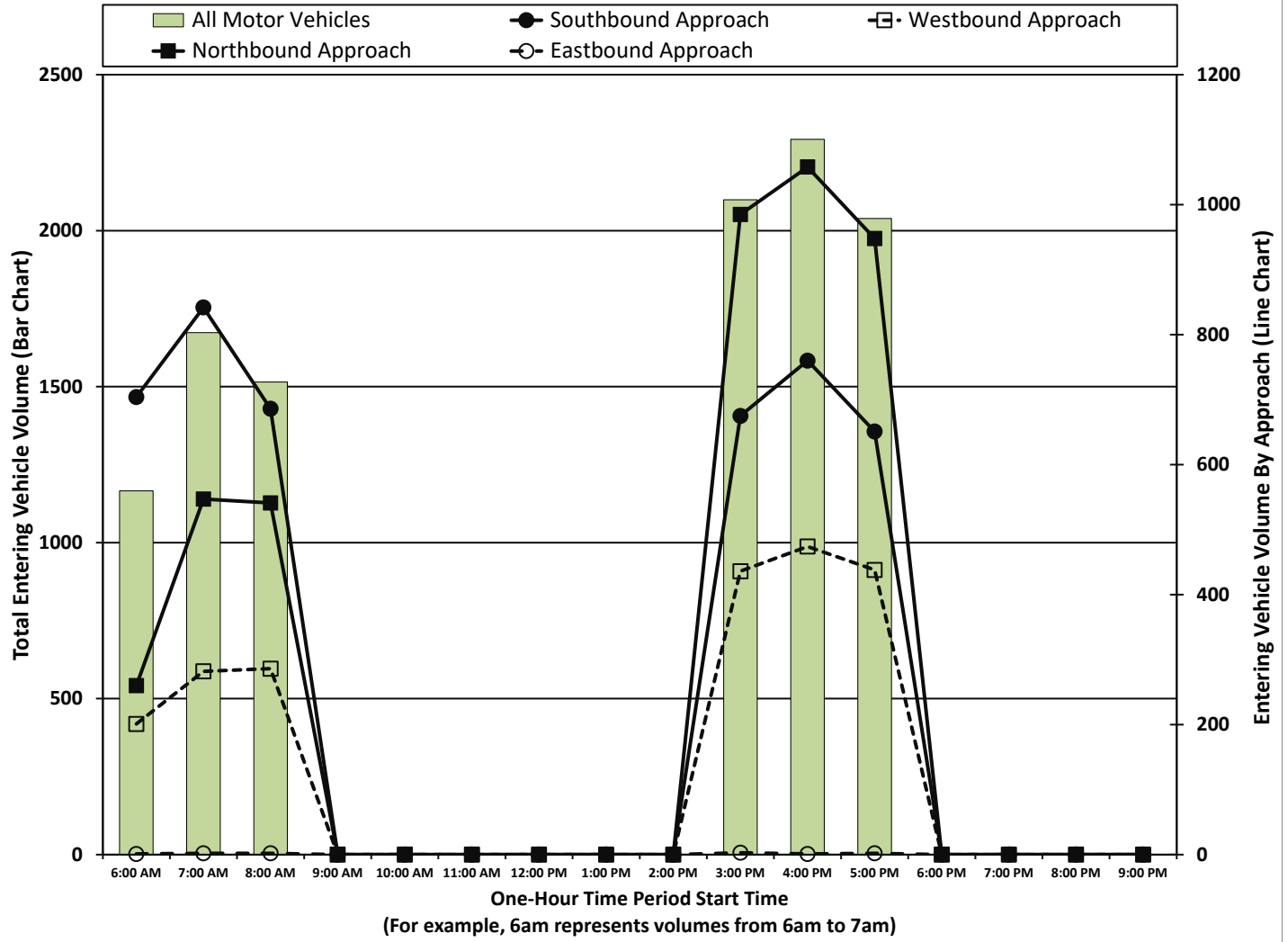
E Johnson Street and N 1st Street



One-Hour Motor Vehicle Data

One-Hour Time Period	From North E Johnson Street					From East N 1st Street					From South E Johnson Street					From West Driveway					Total Vehicle Volume	Directional Volume Totals			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S		
	Start Time																								
AM	6:00 AM	0	545	159	0	704	122	2	77	0	201	26	234	0	0	260	1	0	0	0	1	1166	202	964	
	7:00 AM	0	606	236	0	842	156	0	126	0	282	83	462	2	0	547	0	2	0	0	2	1673	284	1389	
	8:00 AM	1	497	188	0	686	129	0	157	0	286	114	427	0	0	541	1	1	0	0	2	1515	288	1227	
MD	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	
	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	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	
	3:00 PM	1	476	198	0	675	271	0	165	0	436	181	803	1	0	985	1	1	1	0	3	2099	439	1660	
	4:00 PM	1	553	206	0	760	299	0	175	0	474	190	868	0	0	1058	0	0	1	0	1	2293	475	1818	
	5:00 PM	1	468	182	0	651	267	0	171	0	438	224	724	0	0	948	1	1	0	0	2	2039	440	1599	
	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	
	7:00 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
	8:00 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
9:00 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	
Totals	4	3145	1169	0	4318	1244	2	871	0	2117	818	3518	3	0	4339	4	5	2	0	11	10785	2128	8657		

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Heavy Vehicle Data

E Johnson Street and N 1st Street



15-Minute Heavy Vehicle Data

Main data table with columns for 15-Minute Time Period, From North (E Johnson Street), From East (N 1st Street), From South (E Johnson Street), From West (Driveway), 15-Min Totals, and Hourly Sum. Rows include AM Peak Period, Midday Peak Period, and PM Peak Period.

Peak Hour Heavy Vehicle Volume Summary

Summary table with columns for Hourly Time Period, From North (E Johnson Street), From East (N 1st Street), From South (E Johnson Street), From West (Driveway), Total Hourly Volume. Rows include AM 7:15 AM, MD 12:00 PM, and PM 4:30 PM.

Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

E Johnson Street and N 1st Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Johnson Street			N 1st Street			E Johnson Street			Driveway				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	12
6:15 AM	0	0	0	3	0	3	1	0	1	0	0	0	4	15
6:30 AM	0	0	0	4	0	4	0	0	0	0	0	0	4	17
6:45 AM	0	0	0	3	1	4	0	0	0	0	0	0	4	19
7:00 AM	1	0	1	2	0	2	0	0	0	0	0	0	3	20
7:15 AM	0	0	0	5	0	5	0	1	1	0	0	0	6	21
7:30 AM	0	0	0	6	0	6	0	0	0	0	0	0	6	20
7:45 AM	0	0	0	3	2	5	0	0	0	0	0	0	5	16
8:00 AM	0	0	0	0	1	1	0	1	1	1	1	2	4	17
8:15 AM	1	0	1	2	1	3	1	0	1	0	0	0	5	
8:30 AM	0	0	0	0	2	2	0	0	0	0	0	0	2	
8:45 AM	0	0	0	5	0	5	0	0	0	0	1	1	6	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	8
3:15 PM	0	0	0	2	0	2	0	1	1	0	1	1	4	14
3:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	11
3:45 PM	0	0	0	1	1	2	0	0	0	0	0	0	2	13
4:00 PM	1	0	1	2	1	3	0	1	1	1	1	2	7	25
4:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	24
4:30 PM	0	0	0	1	2	3	0	0	0	0	0	0	3	25
4:45 PM	1	0	1	6	2	8	1	0	1	4	0	4	14	24
5:00 PM	0	0	0	5	1	6	0	0	0	0	0	0	6	17
5:15 PM	0	0	0	1	0	1	1	0	1	0	0	0	2	
5:30 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	
5:45 PM	1	0	1	1	1	2	1	1	2	1	1	2	7	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	5	0	5	54	18	72	5	5	10	7	5	12	99	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

15-Minute Adult & Children Count (Manual Entry)

E Johnson Street and N 1st Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Johnson Street			N 1st Street			E Johnson Street			Driveway				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	11
6:15 AM	0	0	0	3	0	3	1	0	1	0	0	0	4	14
6:30 AM	0	0	0	4	0	4	0	0	0	0	0	0	4	15
6:45 AM	0	0	0	3	0	3	0	0	0	0	0	0	3	17
7:00 AM	1	0	1	2	0	2	0	0	0	0	0	0	3	17
7:15 AM	0	0	0	5	0	5	0	0	0	0	0	0	5	15
7:30 AM	0	0	0	6	0	6	0	0	0	0	0	0	6	14
7:45 AM	0	0	0	3	0	3	0	0	0	0	0	0	3	8
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	10
8:15 AM	1	0	1	2	0	2	1	0	1	0	0	0	4	9
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	5	0	5	0	0	0	0	0	0	5	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:15 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	7
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	6
4:00 PM	1	0	1	2	0	2	0	0	0	1	0	1	4	17
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	18
4:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	20
4:45 PM	1	0	1	6	0	6	1	0	1	4	0	4	12	21
5:00 PM	0	0	0	5	0	5	0	0	0	0	0	0	5	13
5:15 PM	0	0	0	1	0	1	1	0	1	0	0	0	2	8
5:30 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	6
5:45 PM	1	0	1	1	0	1	1	0	1	1	0	1	4	4
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	5	0	5	54	0	54	5	0	5	7	0	7	71	

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **E Dayton Street and N 1st Street**

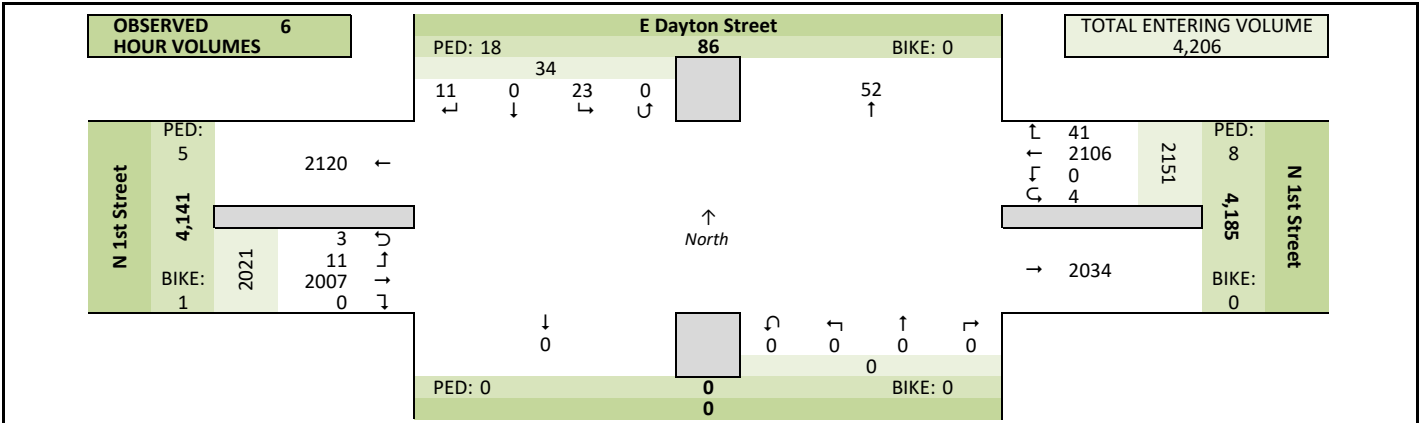
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	E Dayton Street		
East Leg	N 1st Street		
South Leg			
West Leg	N 1st Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementary school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
Other (describe)		None	None

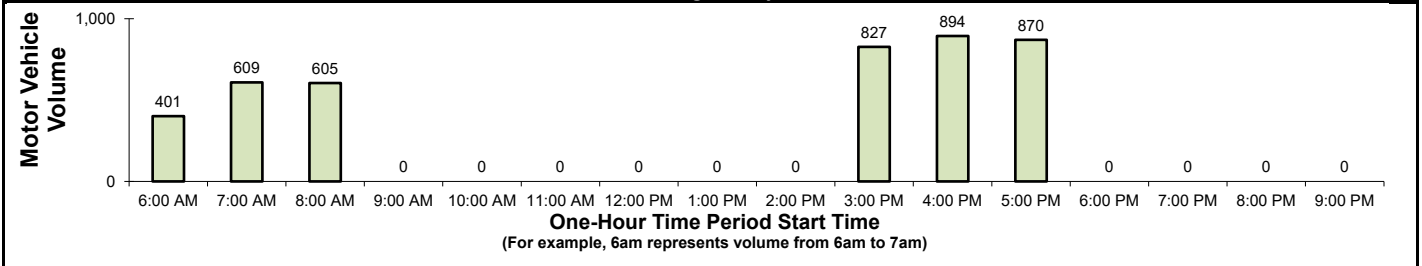
Count Information

Hrs Counted:	6:00 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021	Weather	
AM Peak Period	Thursday, March 18, 2021	Clear & Dry	
Midday Peak Period	Wednesday, March 17, 2021		
PM Peak Period	Wednesday, March 17, 2021	Overcast & Wet	
Calculated Peak Hours			
	AM 7:15-8:15am	MD	PM 4:30-5:30pm
Peak Hours Selected for Analysis			
	AM 7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI	Manual Adj.	1.000
Observers	AM Peak Period	Video Count	
	Midday Peak Period		
	PM Peak Period	Video Count	
Comments	2019 DOT Seasonal Factors		

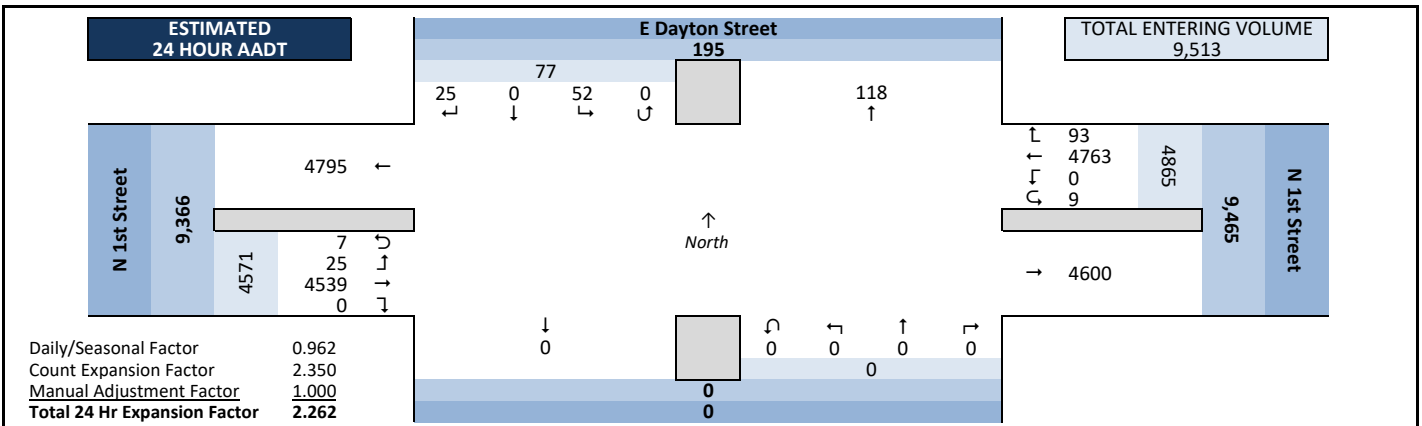
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



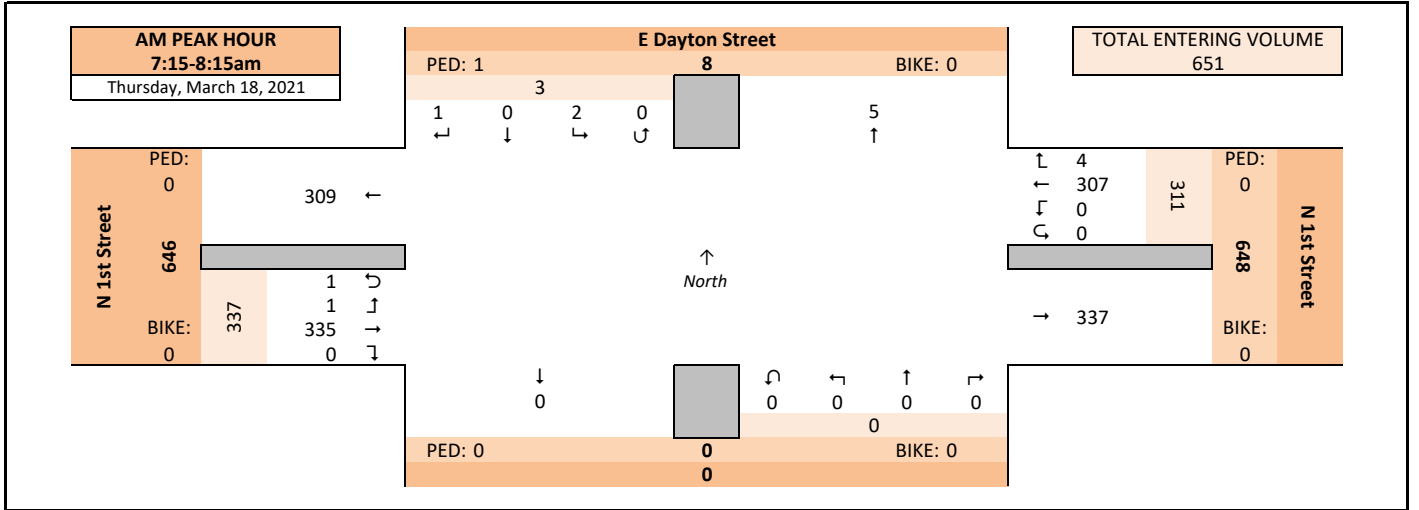
Intersection Traffic Volume Report

Peak Hour Volume Graphical Summary

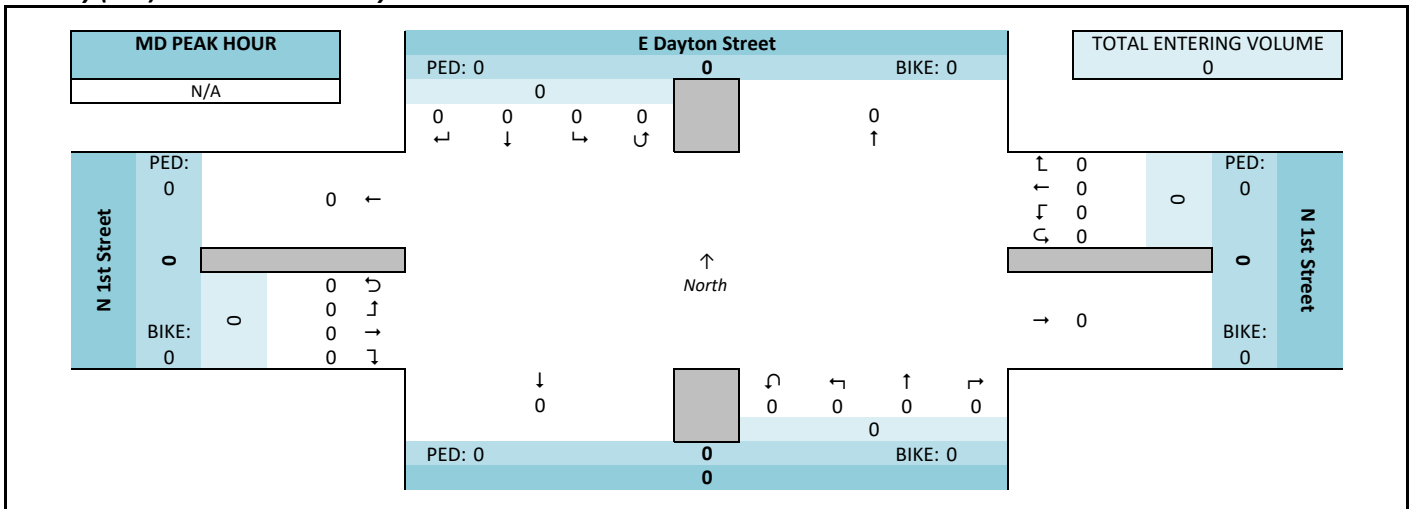
E Dayton Street and N 1st Street



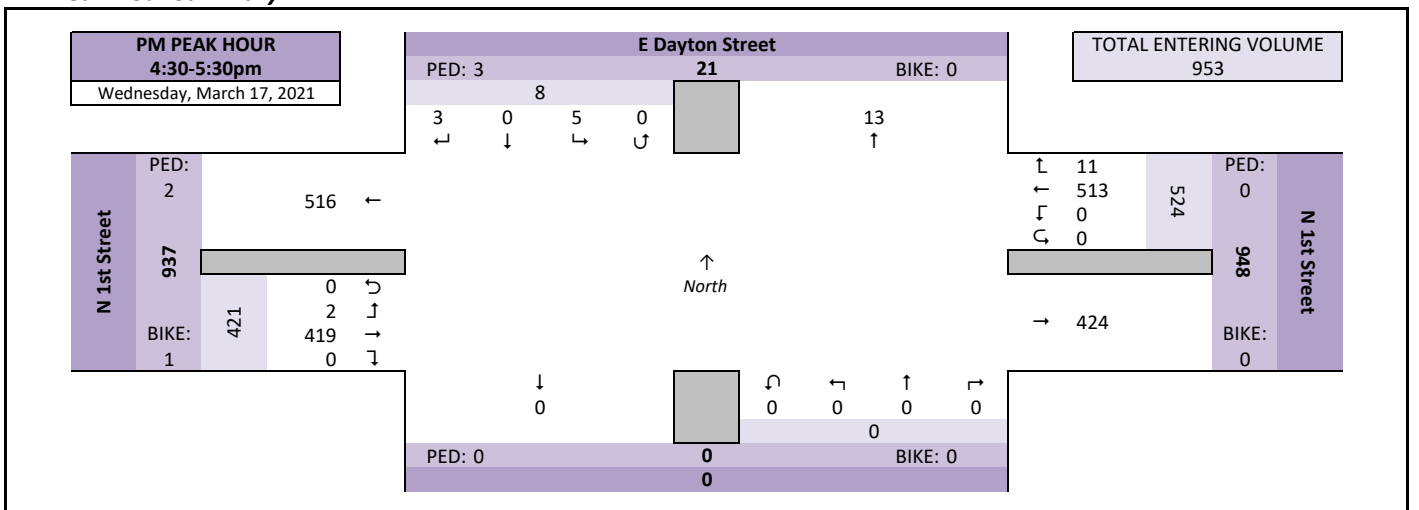
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

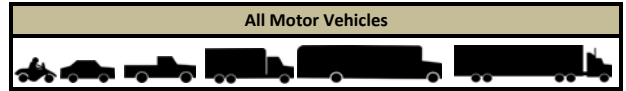


Intersection Traffic Volume Report

Count Basics	<i>Page 3 of 13</i>		
Start Date: Wednesday, March 17, 2021	Weekday	Schools in Session	
Total Number of Hours Counted: 6	Non-Holiday	No Special Events	

Peak Hour Volume Summary

E Dayton Street and N 1st Street



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		From North					From East					From South					From West					Totals	
		E Dayton Street					N 1st Street					0					N 1st Street						
AM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	7:15 AM	0	0	0	0	0	2	88	0	0	90	0	0	0	0	0	0	0	75	0	0	75	165
	7:30 AM	0	0	0	0	0	0	65	0	0	65	0	0	0	0	0	0	0	87	0	0	87	152
	7:45 AM	1	0	1	0	2	1	85	0	0	86	0	0	0	0	0	0	0	111	1	0	112	200
	8:00 AM	0	0	1	0	1	1	69	0	0	70	0	0	0	0	0	0	0	62	0	1	63	134
	Peak Hour Volume	1	0	2	0	3	4	307	0	0	311	0	0	0	0	0	0	0	335	1	1	337	651
	Rounded Hourly Volume	0	0	0	0	0	5	305	0	0	310	0	0	0	0	0	0	0	335	0	0	335	645
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0	6.8	6.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	0.6
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	7.7	7.2
	Peak Hour Factor (PHF)	0.25	0.00	0.50	0.00	0.37	0.50	0.87	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.25	0.25	0.75	0.81

N/A		From North					From East					From South					From West					Totals
		E Dayton Street					N 1st Street					0					N 1st Street					
MD Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, March 17, 2021		From North					From East					From South					From West					Totals	
		E Dayton Street					N 1st Street					0					N 1st Street						
PM Peak Hour	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
	4:30 PM	0	0	2	0	2	2	134	0	0	136	0	0	0	0	0	0	0	79	0	0	79	217
	4:45 PM	1	0	1	0	2	3	124	0	0	127	0	0	0	0	0	0	0	116	1	0	117	246
	5:00 PM	1	0	1	0	2	4	136	0	0	140	0	0	0	0	0	0	0	105	1	0	106	248
	5:15 PM	1	0	1	0	2	2	119	0	0	121	0	0	0	0	0	0	0	119	0	0	119	242
	Peak Hour Volume	3	0	5	0	8	11	513	0	0	524	0	0	0	0	0	0	0	419	2	0	421	953
	Rounded Hourly Volume	5	0	5	0	10	10	515	0	0	525	0	0	0	0	0	0	0	420	0	0	420	955
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.7	1.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	0.3
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	1.9
	Peak Hour Factor (PHF)	0.75	0.00	0.62	0.00	1.00	0.69	0.94	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.50	0.00	0.88	0.96

Peak Hour Pedestrian and Bicyclist Volumes

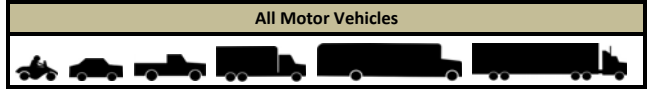
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		E Dayton Street			N 1st Street			0			N 1st Street			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	0	0	0	0	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	1	1	2	2
	5:00 PM	2	0	2	0	0	0	0	0	0	1	0	1	3
	5:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1
	Total	3	0	3	0	0	0	0	0	0	2	1	3	6

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

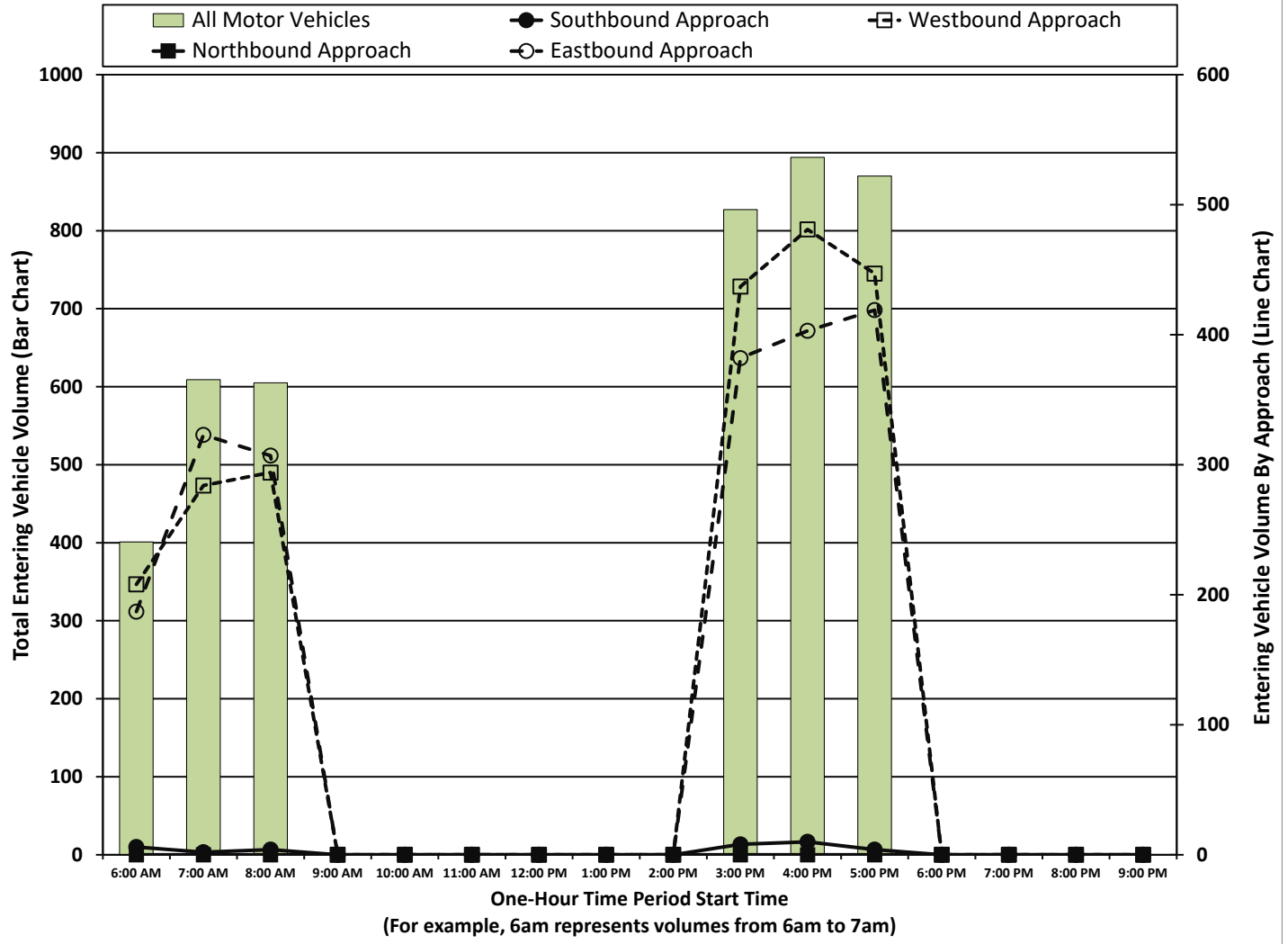
E Dayton Street and N 1st Street



One-Hour Motor Vehicle Data

One-Hour Time Period	From North E Dayton Street					From East N 1st Street					From South 0					From West N 1st Street					Total Vehicle Volume	Directional Volume Totals		
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S	
	Start Time																							
AM	6:00 AM	1	0	5	0	6	4	204	0	0	208	0	0	0	0	0	0	185	2	0	187	401	395	6
	7:00 AM	1	0	1	0	2	4	280	0	0	284	0	0	0	0	0	0	322	1	0	323	609	607	2
	8:00 AM	1	0	3	0	4	6	287	0	1	294	0	0	0	0	0	0	303	3	1	307	605	601	4
	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
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	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
	3:00 PM	3	0	5	0	8	7	428	0	2	437	0	0	0	0	0	0	380	2	0	382	827	819	8
	4:00 PM	3	0	7	0	10	11	470	0	0	481	0	0	0	0	0	0	400	2	1	403	894	884	10
	5:00 PM	2	0	2	0	4	9	437	0	1	447	0	0	0	0	0	0	417	1	1	419	870	866	4
	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
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals	11	0	23	0	34	41	2106	0	4	2151	0	0	0	0	0	0	2007	11	3	2021	4206	4172	34

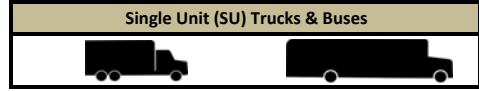
Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Single Unit (SU) Truck & Bus Data

E Dayton Street and N 1st Street



15-Minute Single Unit (SU) Truck & Bus Data

Main data table with columns for 15-Minute Time Period, From North (E Dayton Street), From East (N 1st Street), From South (0), From West (N 1st Street), 15-Min Totals, and Hourly Sum. Rows are categorized by AM Peak Period, Midday Peak Period, and PM Peak Period.

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Summary table with columns for Hourly Time Period, From North (E Dayton Street), From East (N 1st Street), From South (0), From West (N 1st Street), Total Hourly Volume. Rows include AM 7:15 AM, MD 12:00 PM, and PM 4:30 PM.

Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

E Dayton Street and N 1st Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Dayton Street			N 1st Street			0			N 1st Street				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:00 AM	1	0	1	0	0	0	0	0	0	1	0	1	2	3
7:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	4	0	4	1	0	1	0	0	0	0	0	0	5	15
3:15 PM	2	0	2	2	0	2	0	0	0	0	0	0	4	11
3:30 PM	1	0	1	1	0	1	0	0	0	1	0	1	3	8
3:45 PM	2	0	2	0	0	0	0	0	0	1	0	1	3	5
4:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	4
4:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	2	2	12
5:00 PM	2	0	2	0	0	0	0	0	0	1	0	1	3	10
5:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	3	0	3	3	0	3	0	0	0	0	0	0	6	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	0	18	8	0	8	0	0	0	5	1	6	32	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

15-Minute Adult & Children Count (Manual Entry)

E Dayton Street and N 1st Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Dayton Street			N 1st Street			0			N 1st Street				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:00 AM	1	1	2	0	0	0	0	0	0	1	1	2	2	3
7:15 AM	1	1	2	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12
3:00 PM	4	4	8	1	1	2	1	0	1	0	0	1	5	15
3:15 PM	2	2	4	2	2	4	2	0	2	0	0	2	4	11
3:30 PM	1	1	2	1	1	2	1	0	1	0	1	1	3	8
3:45 PM	2	2	4	0	0	0	0	0	0	1	1	2	3	5
4:00 PM	0	0	0	1	1	2	1	0	1	0	0	1	1	3
4:15 PM	1	1	2	0	0	0	0	0	0	0	0	0	1	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	2	1	11
5:00 PM	2	2	4	0	0	0	0	0	0	1	1	2	3	10
5:15 PM	1	1	2	0	0	0	0	0	0	0	0	0	1	7
5:30 PM	3	3	6	3	3	6	3	0	3	0	0	3	6	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	0	18	8	0	8	0	0	0	5	0	5	31	

Intersection Traffic Volume Report

15-Minute Bicycle Turning Movement Count (Manual Entry)

E Dayton Street and N 1st Street



15-Minute Bicycle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	E Dayton Street					N 1st Street					0					N 1st Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
6:00 AM					0					0					0					0	0	
6:15 AM					0					0					0					0	0	
6:30 AM					0					0					0					0	0	
6:45 AM					0					0					0					0	0	
7:00 AM					0					0					0					0	0	
7:15 AM					0					0					0					0	0	
7:30 AM					0					0					0					0	0	
7:45 AM					0					0					0					0	0	
8:00 AM					0					0					0					0	0	
8:15 AM					0					0					0					0	0	
8:30 AM					0					0					0					0	0	
8:45 AM					0					0					0					0	0	
9:00 AM					0					0					0					0	0	
9:15 AM					0					0					0					0	0	
9:30 AM					0					0					0					0	0	
9:45 AM					0					0					0					0	0	
10:00 AM					0					0					0					0	0	
10:15 AM					0					0					0					0	0	
10:30 AM					0					0					0					0	0	
10:45 AM					0					0					0					0	0	
11:00 AM					0					0					0					0	0	
11:15 AM					0					0					0					0	0	
11:30 AM					0					0					0					0	0	
11:45 AM					0					0					0					0	0	
12:00 PM					0					0					0					0	0	
12:15 PM					0					0					0					0	0	
12:30 PM					0					0					0					0	0	
12:45 PM					0					0					0					0	0	
1:00 PM					0					0					0					0	0	
1:15 PM					0					0					0					0	0	
1:30 PM					0					0					0					0	0	
1:45 PM					0					0					0					0	0	
2:00 PM					0					0					0					0	0	
2:15 PM					0					0					0					0	0	
2:30 PM					0					0					0					0	0	
2:45 PM					0					0					0					0	0	
3:00 PM					0					0					0					0	0	
3:15 PM					0					0					0					0	0	
3:30 PM					0					0					0					0	0	
3:45 PM					0					0					0					0	0	
4:00 PM					0					0					0					0	0	
4:15 PM					0					0					0					0	0	
4:30 PM					0					0					0					0	0	
4:45 PM					0					0					0					0	0	
5:00 PM					0					0					0					0	0	
5:15 PM					0					0					0					0	0	
5:30 PM					0					0					0					0	0	
5:45 PM					0					0					0					0	0	
6:00 PM					0					0					0					0	0	
6:15 PM					0					0					0					0	0	
6:30 PM					0					0					0					0	0	
6:45 PM					0					0					0					0	0	
7:00 PM					0					0					0					0	0	
7:15 PM					0					0					0					0	0	
7:30 PM					0					0					0					0	0	
7:45 PM					0					0					0					0	0	
8:00 PM					0					0					0					0	0	
8:15 PM					0					0					0					0	0	
8:30 PM					0					0					0					0	0	
8:45 PM					0					0					0					0	0	
9:00 PM					0					0					0					0	0	
9:15 PM					0					0					0					0	0	
9:30 PM					0					0					0					0	0	
9:45 PM					0					0					0					0	0	
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	E Dayton Street					N 1st Street					0					N 1st Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **N 1st Street and Mifflin Street**

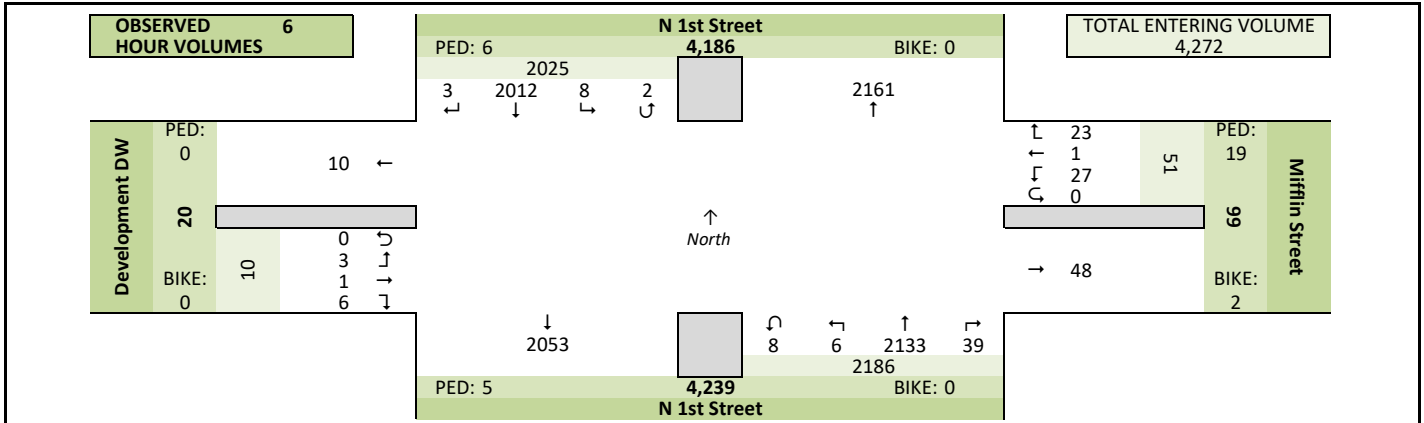
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	N 1st Street		
East Leg	Mifflin Street		
South Leg	N 1st Street		
West Leg	Development DW		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

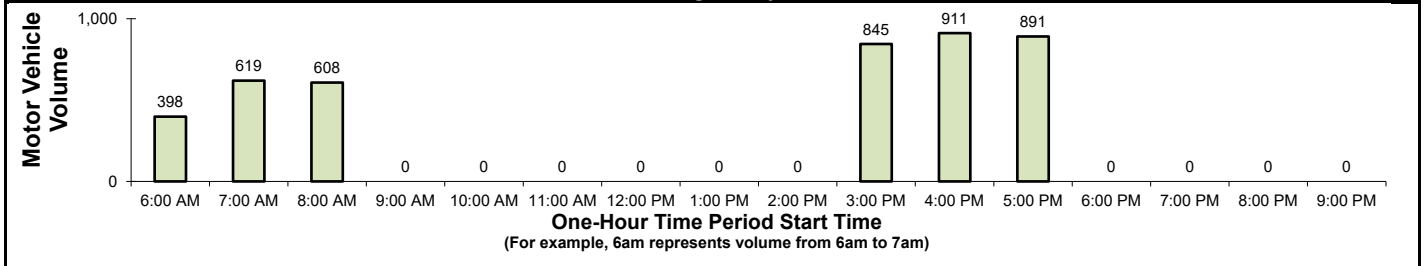
Count Information

Hrs Counted:	6:00 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021		Weather
AM Peak Period	Thursday, March 18, 2021		Clear & Dry
Midday Peak Period	Wednesday, March 17, 2021		
PM Peak Period	Wednesday, March 17, 2021		Overcast & Wet
Calculated Peak Hours			
	AM	7:15-8:15am	MD
			PM
			4:30-5:30pm
Peak Hours Selected for Analysis			
	AM	7:15-8:15am	MD
			PM
			4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI, Inc.		Manual Adj.
			1.000
Observers	AM Peak Period	Amy Scheuerlein - Video Counts	
	Midday Peak Period	None	
	PM Peak Period	Amy Scheuerlein - Video Counts	
Comments	2019 DOT Seasonal Factors		

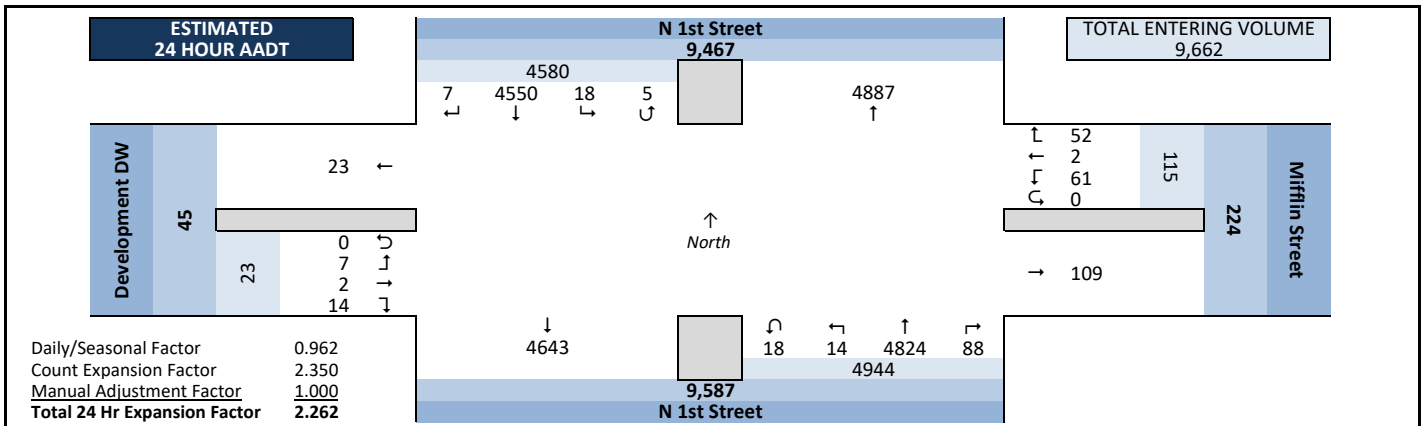
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



Intersection Traffic Volume Report

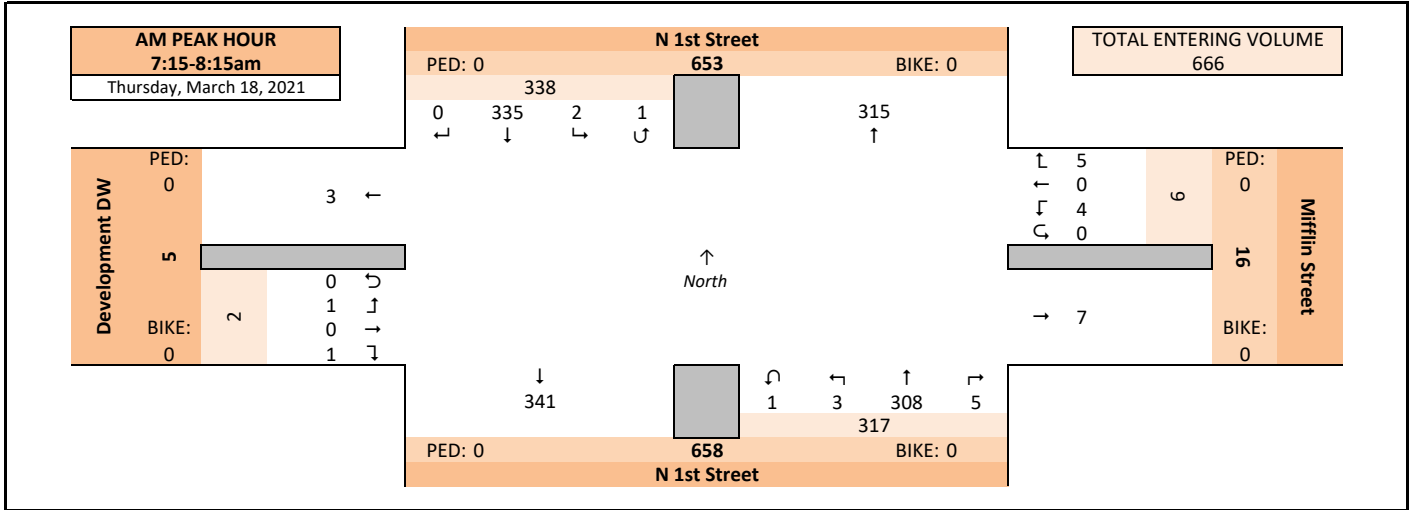
Count Basics		Page 2 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

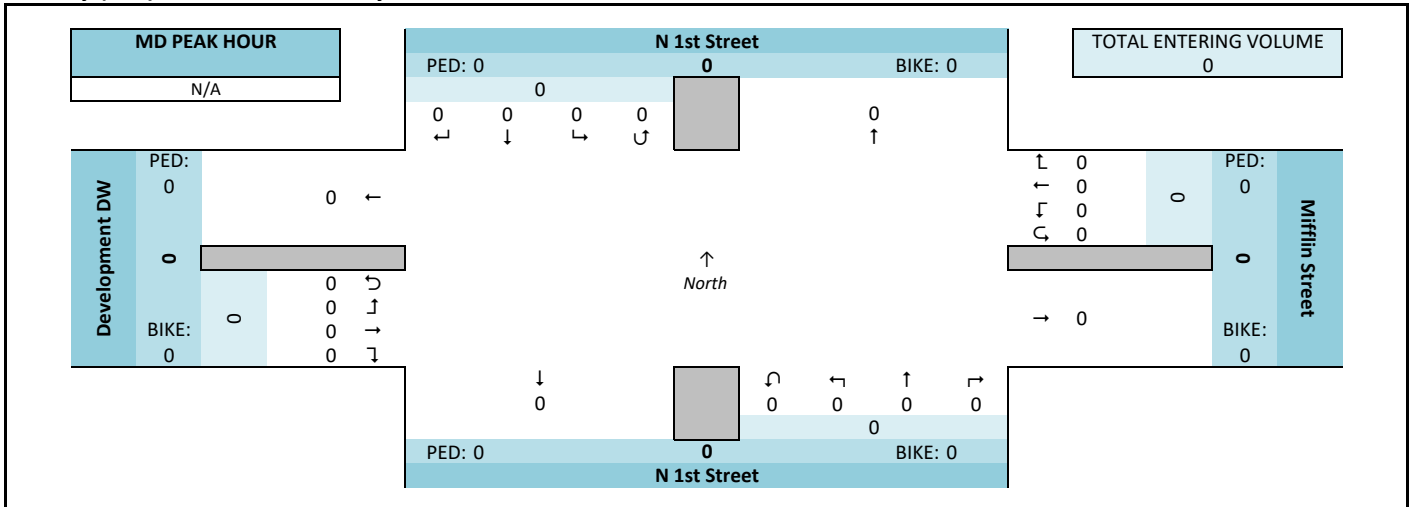
N 1st Street and Mifflin Street



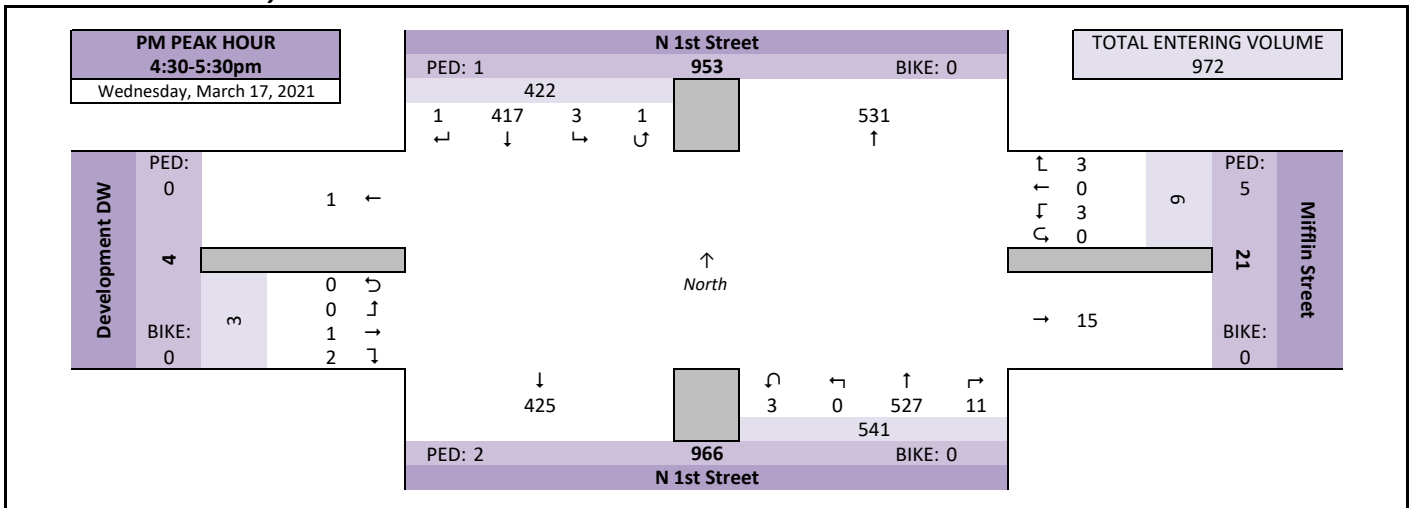
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

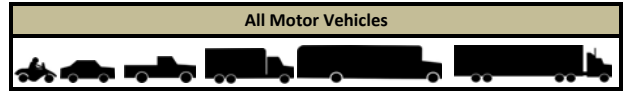


Intersection Traffic Volume Report

Count Basics		Page 3 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Peak Hour Volume Summary

N 1st Street and Mifflin Street



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		From North					From East					From South					From West					Totals
AM Peak Hour	Start Time	N 1st Street					Mifflin Street					N 1st Street					Development DW					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	7:15 AM	0	76	0	0	76	1	0	0	0	1	1	91	2	1	95	0	0	0	0	0	172
	7:30 AM	0	84	2	0	86	1	0	2	0	3	1	67	0	0	68	1	0	0	0	0	158
	7:45 AM	0	112	0	1	113	2	0	1	0	3	1	80	1	0	82	0	0	0	0	0	198
	8:00 AM	0	63	0	0	63	1	0	1	0	2	2	70	0	0	72	0	0	1	0	1	138
	Peak Hour Volume	0	335	2	1	338	5	0	4	0	9	5	308	3	1	317	1	0	1	0	2	666
	Rounded Hourly Volume	0	335	0	0	335	5	0	5	0	10	5	310	5	0	320	0	0	0	0	0	665
	% Single Unit Trucks	0.0	6.3	50.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	7.1	33.3	0.0	7.3	0.0	0.0	100.0	0.0	50.0	6.9
	% Heavy Trucks	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6
	% Trucks (Total)	0.0	7.2	50.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	7.5	33.3	0.0	7.6	0.0	0.0	100.0	0.0	50.0	7.5
	Peak Hour Factor (PHF)	0.00	0.75	0.25	0.25	0.75	0.62	0.00	0.50	0.00	0.75	0.62	0.85	0.37	0.25	0.83	0.25	0.00	0.25	0.00	0.50	0.84

N/A		From North					From East					From South					From West					Totals
Midday (MD) Peak Hour	Start Time	N 1st Street					Mifflin Street					N 1st Street					Development DW					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, March 17, 2021		From North					From East					From South					From West					Totals
PM Peak Hour	Start Time	N 1st Street					Mifflin Street					N 1st Street					Development DW					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	4:30 PM	1	78	0	0	79	1	0	0	0	1	1	139	0	0	140	0	0	0	0	0	220
	4:45 PM	0	116	0	0	116	2	0	1	0	3	4	124	0	1	129	2	0	0	0	2	250
	5:00 PM	0	104	1	1	106	0	0	1	0	1	4	139	0	1	144	0	0	0	0	0	251
	5:15 PM	0	119	2	0	121	0	0	1	0	1	2	125	0	1	128	0	1	0	0	1	251
	Peak Hour Volume	1	417	3	1	422	3	0	3	0	6	11	527	0	3	541	2	1	0	0	3	972
	Rounded Hourly Volume	0	415	5	0	420	5	0	5	0	10	10	525	0	5	540	0	0	0	0	0	970
	% Single Unit Trucks	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.4
	% Heavy Trucks	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
	% Trucks (Total)	0.0	1.9	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.9
	Peak Hour Factor (PHF)	0.25	0.88	0.37	0.25	0.87	0.37	0.00	0.75	0.00	0.50	0.69	0.95	0.00	0.75	0.94	0.25	0.25	0.00	0.00	0.37	0.97

Peak Hour Pedestrian and Bicyclist Volumes

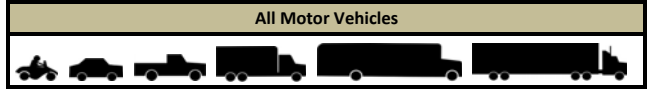
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
15-Minute Start Time		N 1st Street			Mifflin Street			N 1st Street			Development DW			
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total		0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total		0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1
	4:45 PM	1	0	1	2	0	2	1	0	1	0	0	0	4
	5:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	2
	5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	1
	Total		1	0	1	5	0	5	2	0	2	0	0	8

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

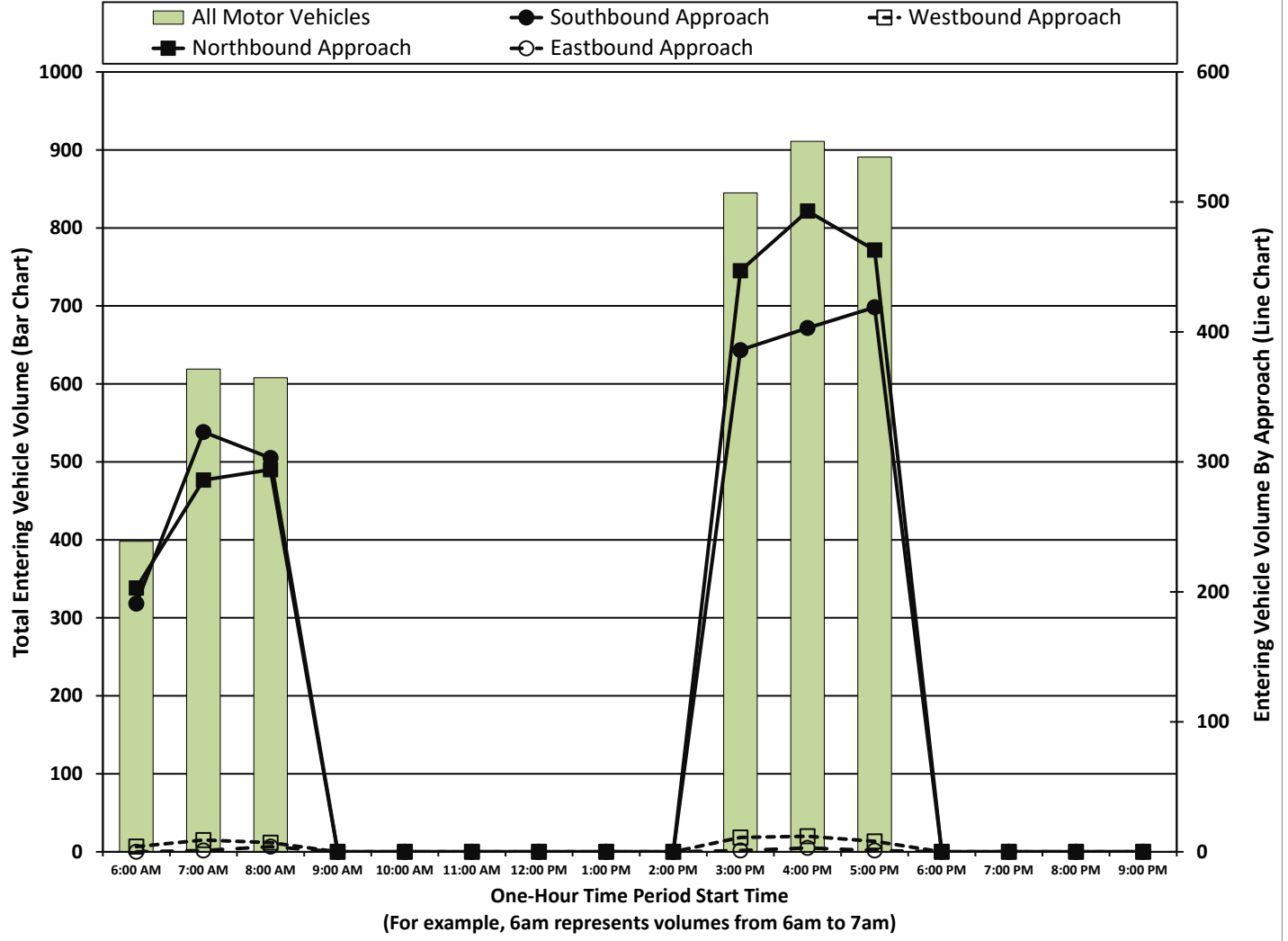
N 1st Street and Mifflin Street



One-Hour Motor Vehicle Data

One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals	
	N 1st Street					Mifflin Street					N 1st Street					Development DW						E/W	N/S
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM	0	190	1	0	191	1	0	3	0	4	0	202	1	0	203	0	0	0	0	0	398	4	394
7:00 AM	0	320	2	1	323	5	0	4	0	9	3	279	3	1	286	1	0	0	0	1	619	10	609
8:00 AM	0	303	0	0	303	3	0	4	0	7	4	288	1	1	294	1	0	3	0	4	608	11	597
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
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
3:00 PM	1	384	1	0	386	3	1	7	0	11	12	435	0	0	447	1	0	0	0	1	845	12	833
4:00 PM	2	400	1	0	403	7	0	5	0	12	10	481	1	1	493	3	0	0	0	3	911	15	896
5:00 PM	0	415	3	1	419	4	0	4	0	8	10	448	0	5	463	0	1	0	0	1	891	9	882
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
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	3	2012	8	2	2025	23	1	27	0	51	39	2133	6	8	2186	6	1	3	0	10	4272	61	4211

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

N 1st Street and Mifflin Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	N 1st Street			Mifflin Street			N 1st Street			Development DW				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	2	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	1	0	1	1	0	1	0	0	0	0	0	0	2	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	2	1	3	0	0	0	0	0	0	3	8
3:15 PM	0	0	0	1	0	1	3	0	3	0	0	0	4	7
3:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	11
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	11
4:00 PM	1	0	1	1	0	1	0	0	0	0	0	0	2	15
4:15 PM	2	0	2	5	1	6	0	0	0	0	0	0	8	15
4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	8
4:45 PM	1	0	1	2	0	2	1	0	1	0	0	0	4	7
5:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	4
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	6	0	6	19	2	21	5	0	5	0	0	0	32	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

15-Minute Adult & Children Count (Manual Entry)

N 1st Street and Mifflin Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	N 1st Street			Mifflin Street			N 1st Street			Development DW				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	2	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	1	0	1	1	0	1	0	0	0	0	0	0	2	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
3:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	7
3:15 PM	0	0	0	1	0	1	3	0	3	0	0	0	4	7
3:30 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	10
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4:00 PM	1	0	1	1	0	1	0	0	0	0	0	0	2	14
4:15 PM	2	0	2	5	0	5	0	0	0	0	0	0	7	14
4:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	8
4:45 PM	1	0	1	2	0	2	1	0	1	0	0	0	4	7
5:00 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	4
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	6	0	6	19	0	19	5	0	5	0	0	0	30	

Intersection Traffic Volume Report

Count Basics		Version 2013.J4.1		Page 1 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session		
Total Number of Hours Counted:	6	Non-Holiday	No Special Events		

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **E Washington Avenue and N 1st Street**

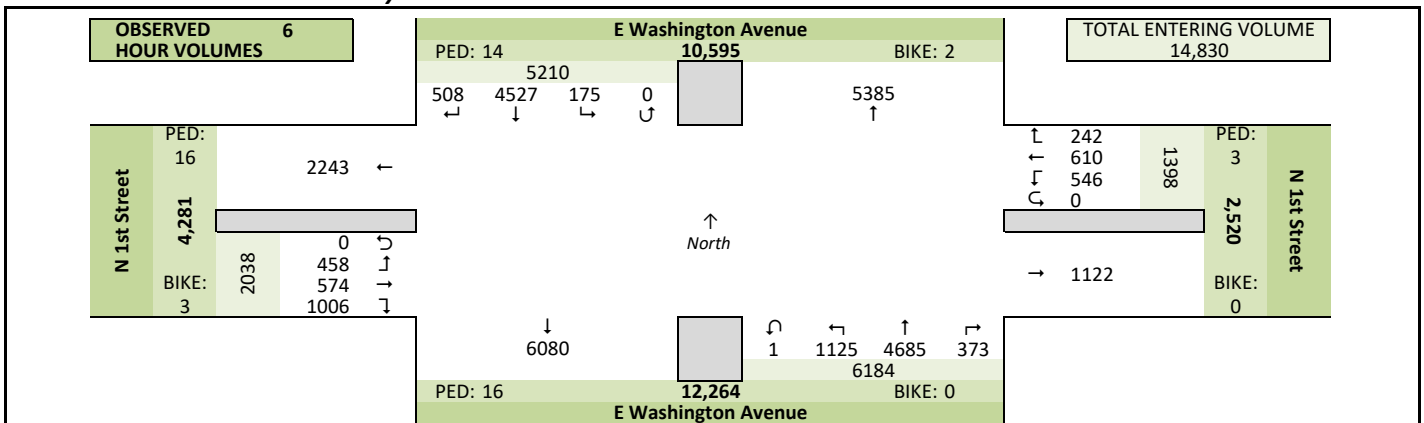
Site Information

Municipality	City of Madison		
County	Dane	WisDOT Region	SW-M
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	E Washington Avenue		
East Leg	N 1st Street		
South Leg	E Washington Avenue		
West Leg	N 1st Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

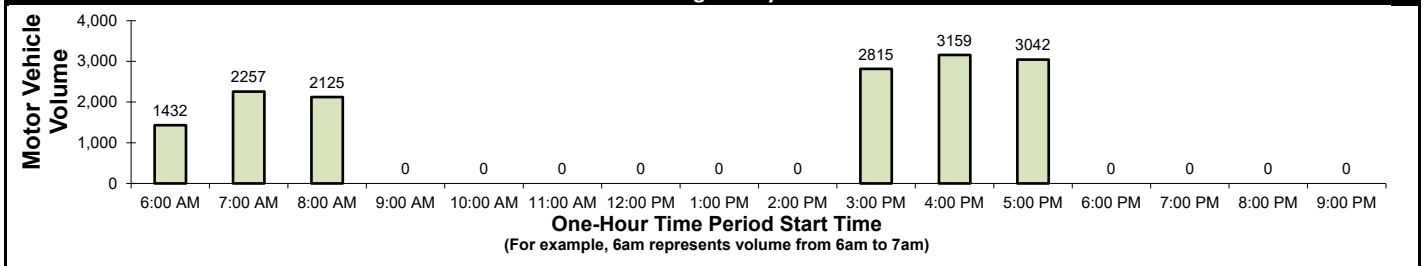
Count Information

Hrs Counted:	6:00 AM-9:00 AM and 3:00 PM-6:00 PM		
1st Day of Count	Wednesday, March 17, 2021	Weather	
AM Peak Period	Thursday, March 18, 2021	Clear & Dry	
Midday Peak Period	Wednesday, March 17, 2021		
PM Peak Period	Wednesday, March 17, 2021	Overcast & Wet	
Calculated Peak Hours			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Peak Hours Selected for Analysis			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.962	Count Expansion Factor	2.350
Company Name	TADI	Manual Adj.	1.000
Observers	AM Peak Period	Video Count	
	Midday Peak Period		
	PM Peak Period	Video Count	
Comments	2019 DOT Seasonal Factors		

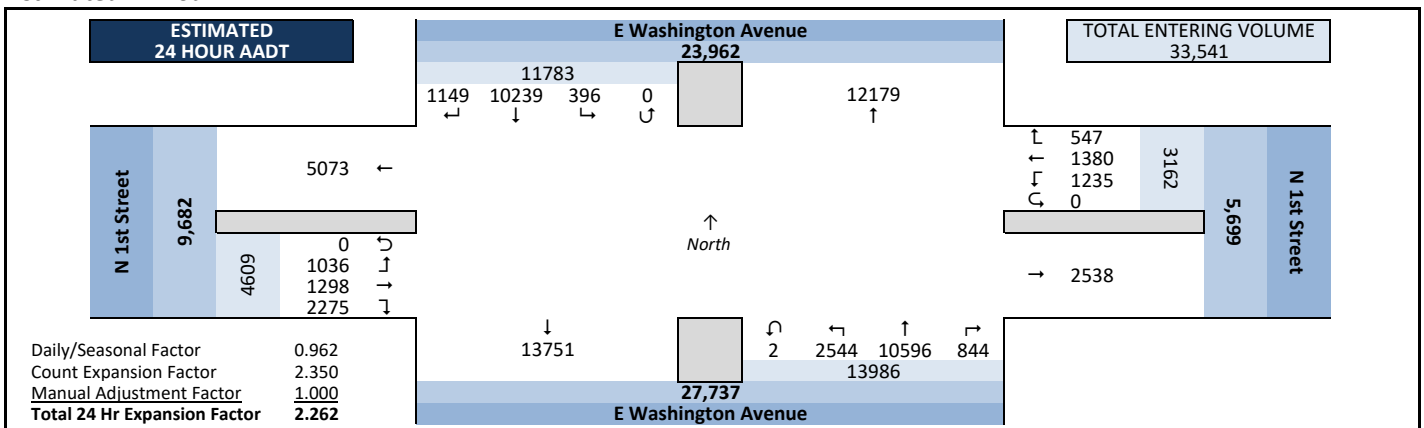
Observed 6 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT

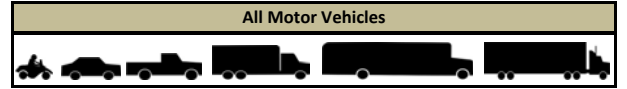


Intersection Traffic Volume Report

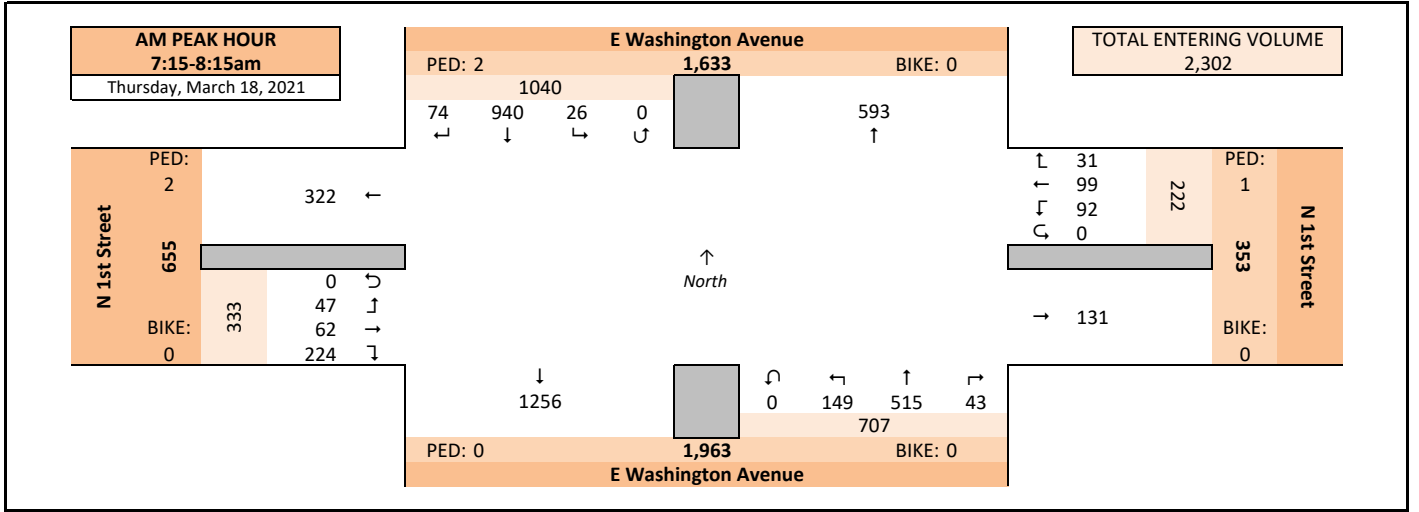
Count Basics		Page 2 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

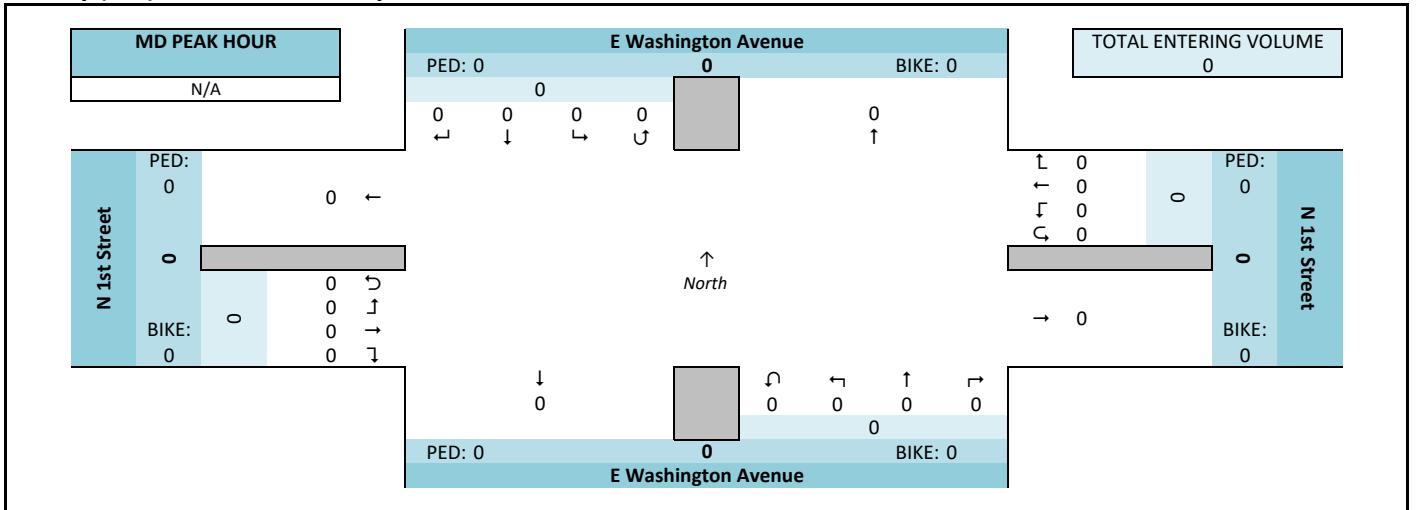
E Washington Avenue and N 1st Street



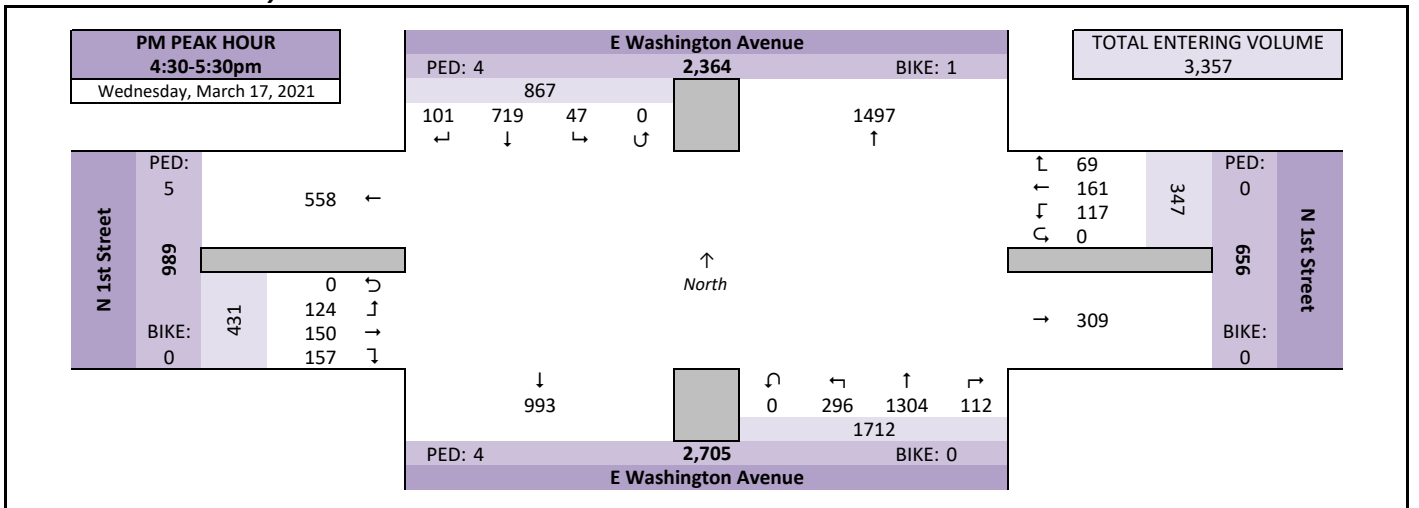
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



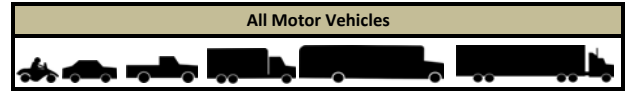
PM Peak Hour Summary



Intersection Traffic Volume Report

Peak Hour Volume Summary

E Washington Avenue and N 1st Street



Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, March 18, 2021		From North					From East					From South					From West					
		E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street					
AM Peak Hour	AM Peak Hour	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	Start Time																					
	7:15 AM	27	246	5	0	278	7	30	16	0	53	12	136	41	0	189	56	11	6	0	73	593
	7:30 AM	17	262	6	0	285	7	11	33	0	51	5	130	39	0	174	55	12	17	0	84	594
	7:45 AM	18	239	7	0	264	8	28	17	0	53	13	140	38	0	191	67	28	13	0	108	616
	8:00 AM	12	193	8	0	213	9	30	26	0	65	13	109	31	0	153	46	11	11	0	68	499
	Peak Hour Volume	74	940	26	0	1040	31	99	92	0	222	43	515	149	0	707	224	62	47	0	333	2302
	Rounded Hourly Volume	75	940	25	0	1040	30	100	90	0	220	45	515	150	0	710	225	60	45	0	330	2300
	% Single Unit Trucks	13.5	3.8	15.4	0.0	4.8	9.7	5.1	1.1	0.0	4.1	2.3	8.7	8.1	0.0	8.2	9.4	1.6	0.0	0.0	6.6	6.0
	% Heavy Trucks	0.0	0.1	3.8	0.0	0.2	0.0	1.0	0.0	0.0	0.5	0.0	0.8	0.0	0.0	0.6	0.4	0.0	4.3	0.0	0.9	0.4
% Trucks (Total)	13.5	3.9	19.2	0.0	5.0	9.7	6.1	1.1	0.0	4.5	2.3	9.5	8.1	0.0	8.8	9.8	1.6	4.3	0.0	7.5	6.5	
Peak Hour Factor (PHF)	0.69	0.90	0.81	0.00	0.91	0.86	0.82	0.70	0.00	0.85	0.83	0.92	0.91	0.00	0.93	0.84	0.55	0.69	0.00	0.77	0.93	

N/A		From North					From East					From South					From West					
		E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street					
Midday (MD) Peak Hour	MD Peak Hour	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	Start Time																					
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Wednesday, March 17, 2021		From North					From East					From South					From West					
		E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street					
PM Peak Hour	PM Peak Hour	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	Start Time																					
	4:30 PM	36	172	9	0	217	13	37	26	0	76	21	342	77	0	440	34	20	29	0	83	816
	4:45 PM	18	171	11	0	200	16	28	23	0	67	31	320	79	0	430	45	37	33	0	115	812
	5:00 PM	24	163	9	0	196	21	46	32	0	99	31	332	81	0	444	40	43	32	0	115	854
	5:15 PM	23	213	18	0	254	19	50	36	0	105	29	310	59	0	398	38	50	30	0	118	875
	Peak Hour Volume	101	719	47	0	867	69	161	117	0	347	112	1304	296	0	1712	157	150	124	0	431	3357
	Rounded Hourly Volume	100	720	45	0	865	70	160	115	0	345	110	1305	295	0	1710	155	150	125	0	430	3350
	% Single Unit Trucks	2.0	1.9	0.0	0.0	1.8	4.3	0.0	1.7	0.0	1.4	0.0	1.5	2.4	0.0	1.6	3.8	0.0	0.0	0.0	1.4	1.6
	% Heavy Trucks	2.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	1.3	0.0	0.0	0.0	0.5	0.2
% Trucks (Total)	4.0	1.9	0.0	0.0	2.1	4.3	0.0	1.7	0.0	1.4	0.0	1.8	2.4	0.0	1.8	5.1	0.0	0.0	0.0	1.9	1.8	
Peak Hour Factor (PHF)	0.70	0.84	0.65	0.00	0.85	0.82	0.80	0.81	0.00	0.83	0.90	0.95	0.91	0.00	0.96	0.87	0.75	0.94	0.00	0.91	0.96	

Peak Hour Pedestrian and Bicyclist Volumes

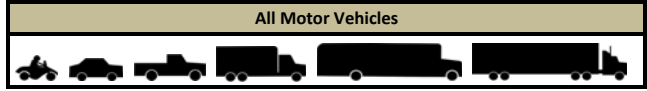
Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		E Washington Avenue			N 1st Street			E Washington Avenue			N 1st Street			
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	1
	8:00 AM	2	0	2	0	0	0	0	0	0	1	0	1	3
	Total	2	0	2	1	0	1	0	0	0	2	0	2	5
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	3	0	3	3	0	3	6
	4:45 PM	2	0	2	0	0	0	1	0	1	1	0	1	4
	5:00 PM	1	1	2	0	0	0	0	0	0	0	0	0	2
	5:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2
	Total	4	1	5	0	0	0	4	0	4	5	0	5	14

Intersection Traffic Volume Report

Count Basics		Page 4 of 13	
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

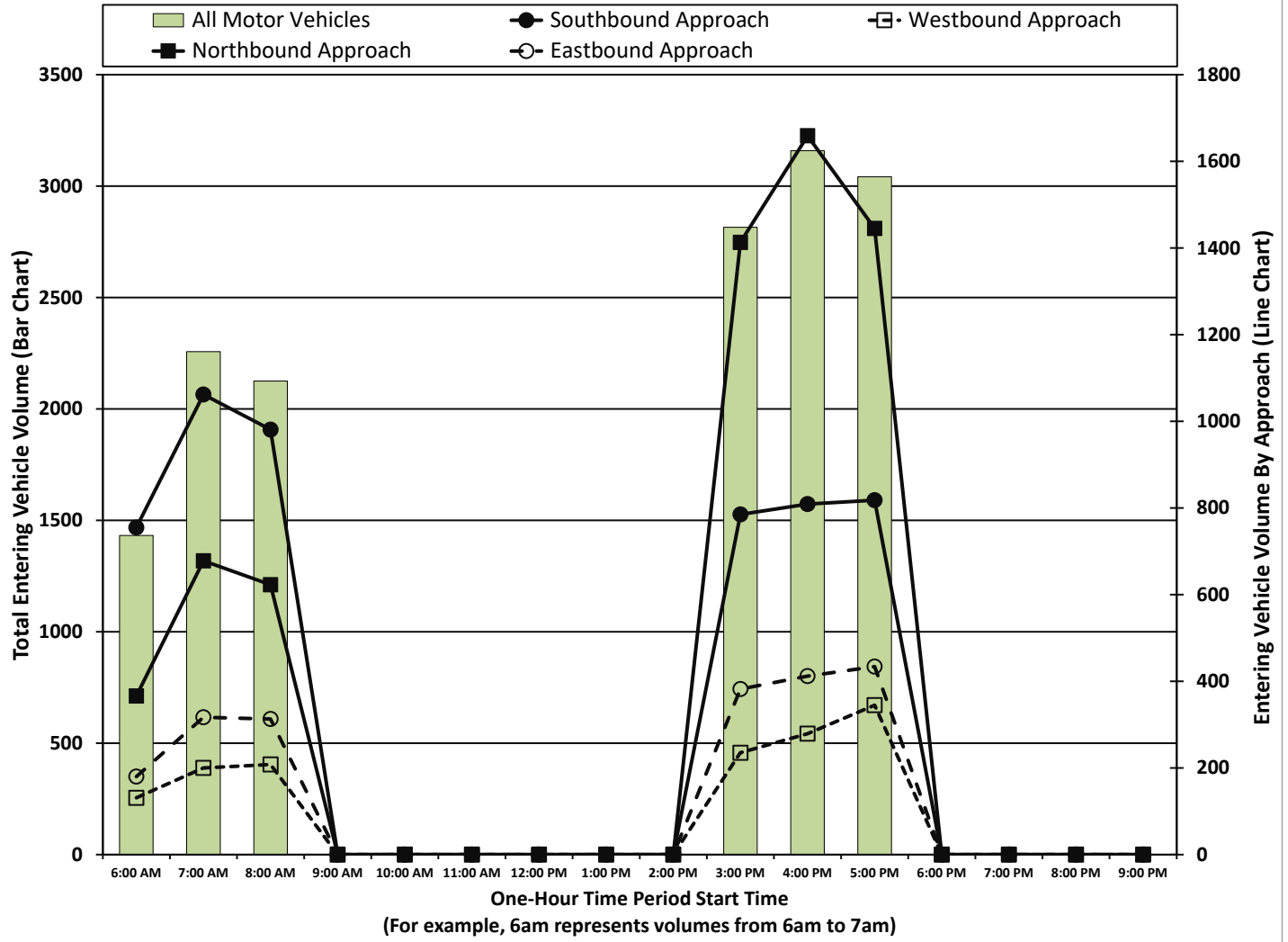
E Washington Avenue and N 1st Street



One-Hour Motor Vehicle Data

One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals	
	E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM	42	693	20	0	755	17	56	58	0	131	13	247	106	0	366	140	23	17	0	180	1432	311	1121
7:00 AM	77	959	26	0	1062	32	83	85	0	200	38	511	129	0	678	214	58	45	0	317	2257	517	1740
8:00 AM	89	864	28	0	981	24	82	102	0	208	33	465	125	0	623	165	88	60	0	313	2125	521	1604
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
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
3:00 PM	103	658	24	0	785	45	107	83	0	235	76	1089	248	0	1413	174	111	97	0	382	2815	617	2198
4:00 PM	104	676	29	0	809	53	125	101	0	279	106	1269	283	1	1659	164	120	128	0	412	3159	691	2468
5:00 PM	93	677	48	0	818	71	157	117	0	345	107	1104	234	0	1445	149	174	111	0	434	3042	779	2263
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
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	508	4527	175	0	5210	242	610	546	0	1398	373	4685	1125	1	6184	1006	574	458	0	2038	14830	3436	11394

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

E Washington Avenue and N 1st Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Washington Avenue			N 1st Street			E Washington Avenue			N 1st Street				
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	7
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:45 AM	3	0	3	2	0	2	0	0	0	1	0	1	6	7
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	8
8:00 AM	2	0	2	0	0	0	0	0	0	1	0	1	3	10
8:15 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	
8:30 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	
8:45 AM	1	0	1	0	0	0	1	0	1	1	0	1	3	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	15
3:30 PM	1	0	1	0	0	0	3	0	3	0	1	1	5	17
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	18
4:00 PM	0	0	0	0	0	0	4	0	4	3	0	3	7	21
4:15 PM	2	1	3	0	0	0	1	0	1	0	0	0	4	16
4:30 PM	0	0	0	0	0	0	3	0	3	3	0	3	6	14
4:45 PM	2	0	2	0	0	0	1	0	1	1	0	1	4	10
5:00 PM	1	1	2	0	0	0	0	0	0	0	0	0	2	6
5:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	
5:30 PM	0	0	0	0	0	0	0	0	0	1	1	2	2	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	14	2	16	3	0	3	16	0	16	16	3	19	54	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Wednesday, March 17, 2021	Weekday	Schools in Session
Total Number of Hours Counted:	6	Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

E Washington Avenue and N 1st Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	E Washington Avenue			N 1st Street			E Washington Avenue			N 1st Street				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	7
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
6:45 AM	3	0	3	2	0	2	0	0	0	1	0	1	6	7
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	8
8:00 AM	2	0	2	0	0	0	0	0	0	1	0	1	3	10
8:15 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	7
8:30 AM	0	0	0	0	0	0	1	1	1	1	1	1	2	5
8:45 AM	1	0	1	0	0	0	1	1	1	1	1	1	3	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	13
3:30 PM	1	0	1	0	0	0	3	0	3	0	0	0	4	15
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	17
4:00 PM	0	0	0	0	0	0	4	0	4	3	0	3	7	20
4:15 PM	2	0	2	0	0	0	1	0	1	0	0	0	3	14
4:30 PM	0	0	0	0	0	0	3	0	3	3	0	3	6	13
4:45 PM	2	0	2	0	0	0	1	0	1	1	1	1	4	8
5:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	4
5:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	0	14	3	0	3	16	0	16	16	0	16	49	

Intersection Traffic Volume Report

15-Minute Bicycle Turning Movement Count (Manual Entry)

E Washington Avenue and N 1st Street



15-Minute Bicycle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
6:00 AM					0					0					0					0	0	
6:15 AM					0					0					0					0	0	
6:30 AM					0					0					0					0	0	
6:45 AM					0					0					0					0	0	
7:00 AM					0					0					0					0	0	
7:15 AM					0					0					0					0	0	
7:30 AM					0					0					0					0	0	
7:45 AM					0					0					0					0	0	
8:00 AM					0					0					0					0	0	
8:15 AM					0					0					0					0	0	
8:30 AM					0					0					0					0	0	
8:45 AM					0					0					0					0	0	
9:00 AM					0					0					0					0	0	
9:15 AM					0					0					0					0	0	
9:30 AM					0					0					0					0	0	
9:45 AM					0					0					0					0	0	
10:00 AM					0					0					0					0	0	
10:15 AM					0					0					0					0	0	
10:30 AM					0					0					0					0	0	
10:45 AM					0					0					0					0	0	
11:00 AM					0					0					0					0	0	
11:15 AM					0					0					0					0	0	
11:30 AM					0					0					0					0	0	
11:45 AM					0					0					0					0	0	
12:00 PM					0					0					0					0	0	
12:15 PM					0					0					0					0	0	
12:30 PM					0					0					0					0	0	
12:45 PM					0					0					0					0	0	
1:00 PM					0					0					0					0	0	
1:15 PM					0					0					0					0	0	
1:30 PM					0					0					0					0	0	
1:45 PM					0					0					0					0	0	
2:00 PM					0					0					0					0	0	
2:15 PM					0					0					0					0	0	
2:30 PM					0					0					0					0	0	
2:45 PM					0					0					0					0	0	
3:00 PM					0					0					0					0	0	
3:15 PM					0					0					0					0	0	
3:30 PM					0					0					0					0	0	
3:45 PM					0					0					0					0	0	
4:00 PM					0					0					0					0	0	
4:15 PM					0					0					0					0	0	
4:30 PM					0					0					0					0	0	
4:45 PM					0					0					0					0	0	
5:00 PM					0					0					0					0	0	
5:15 PM					0					0					0					0	0	
5:30 PM					0					0					0					0	0	
5:45 PM					0					0					0					0	0	
6:00 PM					0					0					0					0	0	
6:15 PM					0					0					0					0	0	
6:30 PM					0					0					0					0	0	
6:45 PM					0					0					0					0	0	
7:00 PM					0					0					0					0	0	
7:15 PM					0					0					0					0	0	
7:30 PM					0					0					0					0	0	
7:45 PM					0					0					0					0	0	
8:00 PM					0					0					0					0	0	
8:15 PM					0					0					0					0	0	
8:30 PM					0					0					0					0	0	
8:45 PM					0					0					0					0	0	
9:00 PM					0					0					0					0	0	
9:15 PM					0					0					0					0	0	
9:30 PM					0					0					0					0	0	
9:45 PM					0					0					0					0	0	
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly Volume
	E Washington Avenue					N 1st Street					E Washington Avenue					N 1st Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wisconsin Department of Transportation

Hourly Traffic Volume Report

2018-Jul-30 to 2018-Aug-01

Coverage Count

50 Hour Count - Averages and Graphs Do Not Include All Days

Location	STH 113 E JOHNSON BTWN 1ST & 2ND STS MADISON		Segment ID	6518
Site #	131947		Seasonal Factor Group	2
Region	SW		Daily Factor Group	2
County	DANE		Axle Factor Group	5
Funct. Class	U Principal Arterial - Other		Growth Factor Group	1

Hour	Sun		Mon 2018-07-30		Tue 2018-07-31		Wed 2018-08-01		Thur		Fri		Sat		2018 WisDOT Hourly	2021 TADI TMC
	Pos Dir	Neg Dir	Pos Dir	Neg Dir	Pos Dir	Neg Dir	Pos Dir	Neg Dir	Pos Dir	Neg Dir	Pos Dir	Neg Dir	Pos Dir	Neg Dir			Total
00:00-00:59	-	-	-	-	116	116	232	153	162	315	-	-	-	-	274	1060
01:00-01:59	-	-	-	-	54	42	96	94	60	154	-	-	-	-	125	1460
02:00-02:59	-	-	-	-	60	38	98	53	30	83	-	-	-	-	91	1242
03:00-03:59	-	-	-	-	45	39	84	68	27	95	-	-	-	-	90	34%
04:00-04:59	-	-	-	-	107	111	218	93	105	198	-	-	-	-	208	1750
05:00-05:59	-	-	-	-	283	435	718	282	464	746	-	-	-	-	732	1928
06:00-06:59	-	-	-	-	430	986	1,416	438	984	1,422	-	-	-	-	1419	1928
07:00-07:59	-	-	-	-	870	1,827	2,697	837	1,780	2,617	-	-	-	-	2657	1642
08:00-08:59	-	-	-	-	805	1,261	2,066	734	1,343	2,077	-	-	-	-	2072	53%
09:00-09:59	-	-	175	187	659	799	1,458	686	835	1,521	-	-	-	1490	1700	
10:00-10:59	-	-	680	696	776	767	1,543	718	776	1,494	-	-	-	2207	1176	
11:00-11:59	-	-	810	806	852	822	1,674	-	-	-	-	-	-	2308	32%	
12:00-12:59	-	-	917	721	908	806	1,714	-	-	-	-	-	-	2831	47%	
13:00-13:59	-	-	865	711	881	699	1,580	-	-	-	-	-	-	2618	59%	
14:00-14:59	-	-	1,132	722	1,133	795	1,928	-	-	-	-	-	-	1700	avg (4-6)	
15:00-15:59	-	-	1,436	894	1,494	791	2,285	-	-	-	-	-	-	1750	53%	
16:00-16:59	-	-	1,734	1,065	1,833	1,029	2,862	-	-	-	-	-	-	2308		
17:00-17:59	-	-	1,590	1,039	1,636	970	2,606	-	-	-	-	-	-	2831		
18:00-18:59	-	-	978	678	1,063	681	1,744	-	-	-	-	-	-	2618		
19:00-19:59	-	-	579	428	780	564	1,344	-	-	-	-	-	-	1700		
20:00-20:59	-	-	527	426	589	440	1,029	-	-	-	-	-	-	1176		
21:00-21:59	-	-	440	276	500	362	862	-	-	-	-	-	-	991		
22:00-22:59	-	-	297	315	331	324	655	-	-	-	-	-	-	789		
23:00-23:59	-	-	293	226	340	305	645	-	-	-	-	-	-	634		
Daily Total	-	-	-	-	16,545	15,009	31,554	-	-	-	-	-	-	582		

AM Peak	Hour	Pos Dir	Neg Dir	Total	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00
Hour	-	-	-	-	870	1,827	2,697	837	1,780	2,617	-	-	-	-	-
MD Peak	-	-	-	-	1,133	822	1,928	-	-	-	-	-	-	-	-
Hour	-	-	-	-	14:00	11:00	14:00	-	-	-	-	-	-	-	-
PM Peak	-	-	-	-	1,734	1,065	2,799	-	-	-	-	-	-	-	-
Hour	-	-	-	-	16:00	16:00	16:00	-	-	-	-	-	-	-	-
Daily Peak	-	-	-	-	1,833	1,827	2,862	-	-	-	-	-	-	-	-
Hour	-	-	-	-	16:00	07:00	16:00	-	-	-	-	-	-	-	-
% of Total	-	-	-	-	11.1%	12.2%	9.1%	-	-	-	-	-	-	-	-
Daily Ave	-	-	-	-	689	625	1,315	-	-	-	-	-	-	-	-

Seasonal Fctr	Daily Fctr	Axle Factor	Pulse Fctr	Overall Fctr
0.931	0.931	0.931	0.935	0.935
0.957	0.957	0.926	0.926	0.926
0.500	0.500	0.500	0.500	0.500
2.000	2.000	2.000	2.000	2.000
0.891	0.891	0.866	0.866	0.866
0.000	0.000	0.000	0.000	0.000

Wisconsin Department of Transportation

Hourly Traffic Volume Report **2018-Aug-07 to 2018-Aug-09**

Coverage Count

50 Hour Count - Averages and Graphs Do Not Include All Days

Location	STH 113 NORTH OF EAST WASH MADISON	Segment ID	2675
Site #	131945	Seasonal Factor Group	2
Region	SW	Daily Factor Group	2
County	DANE	Axle Factor Group	5
Funct. Class	U Principal Arterial - Other	Growth Factor Group	1

Hour	Sun		Mon		Tues 2018-08-07		Wed 2018-08-08		Thur 2018-08-09		Fri		Sat		2018 WisDOT Hourly	2021 TADI TMC	
	Pos Dir	Neg Dir	Total	Pos Dir	Neg Dir	Total	Pos Dir	Neg Dir	Total	Pos Dir	Neg Dir	Total	Pos Dir	Neg Dir			Total
00:00-00:59	-	-	-	-	-	-	65	92	157	55	91	146	-	-	-	152	386
01:00-01:59	-	-	-	-	-	-	38	59	97	35	53	88	-	-	-	93	603
02:00-02:59	-	-	-	-	-	-	28	32	60	30	38	68	-	-	-	64	589
03:00-03:59	-	-	-	-	-	-	24	25	49	33	34	67	-	-	-	58	80%
04:00-04:59	-	-	-	-	-	-	54	76	130	47	62	109	-	-	-	120	102%
05:00-05:59	-	-	-	-	-	-	131	210	341	121	202	323	-	-	-	332	74%
06:00-06:59	-	-	-	-	-	-	311	378	689	315	384	699	-	-	-	694	
07:00-07:59	-	-	-	-	-	241	794	1,249	453	733	1,186	-	-	-	1218		
08:00-08:59	-	-	-	-	556	617	1,040	423	587	1,009	-	-	-	-	1025		
09:00-09:59	-	-	-	-	667	497	871	374	542	973	-	-	-	-	922		
10:00-10:59	-	-	-	-	820	598	900	435	481	932	-	-	-	-	916		
11:00-11:59	-	-	-	-	780	583	961	475	601	1,115	-	-	-	-	1038		
12:00-12:59	-	-	-	-	526	535	1,023	468	569	1,094	-	-	-	-	1059		
13:00-13:59	-	-	-	-	390	495	1,037	488	549	1,030	-	-	-	-	1034		
14:00-14:59	-	-	-	-	359	528	1,164	617	547	1,164	-	-	-	-	1274		
15:00-15:59	-	-	-	-	820	598	1,288	678	610	1,288	-	-	-	-	1277	56%	
16:00-16:59	-	-	-	-	780	583	1,466	842	624	1,466	-	-	-	-	1435	65%	
17:00-17:59	-	-	-	-	526	535	1,417	758	659	1,417	-	-	-	-	1366	62%	
18:00-18:59	-	-	-	-	390	495	1,143	575	568	1,143	-	-	-	-	1082		
19:00-19:59	-	-	-	-	359	408	798	365	418	783	-	-	-	-	791	avg (4-6)	
20:00-20:59	-	-	-	-	280	374	824	374	450	824	-	-	-	-	779	63%	
21:00-21:59	-	-	-	-	168	314	676	342	334	676	-	-	-	-	635		
22:00-22:59	-	-	-	-	99	199	527	251	276	527	-	-	-	-	447		
23:00-23:59	-	-	-	-	99	150	328	127	201	328	-	-	-	-	289		
Daily Total	-	-	-	-	-	-	8,698	9,522	18,220	-	-	-	-	-	-	-	

AM Peak	Hour	MD Peak	Hour	PM Peak	Hour	Daily Peak	Hour	% of Total	Daily Ave
-	-	-	-	-	-	-	-	-	-
-	07:00	-	07:00	-	14:00	-	16:00	8.3%	-
453	794	617	555	842	659	1,403	842	397	759
733	1,249	525	1,164	1,466	1,466	1,403	1,466	8.0%	1,186
07:00	07:00	12:00	11:00	16:00	16:00	16:00	16:00	8.0%	07:00
07:00	07:00	11:00	11:00	16:00	16:00	16:00	16:00	8.0%	11:00
0.935	0.935	0.935	0.935	0.935	0.935	0.935	0.935	0.935	0.935
0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Seasonal Fctr	Daily Fctr	Axle Factor	Pulse Fctr	Overall Fctr
0.935	0.935	0.935	0.935	0.935
0.963	0.963	0.963	0.963	0.963
0.500	0.500	0.500	0.500	0.500
2.000	2.000	2.000	2.000	2.000
0.000	0.000	0.000	0.000	0.000

DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION
Madison, Wisconsin

Office _____
Shop _____
Field _____

TRAFFIC SIGNAL SEQUENCE/TIMING DATA

INTERSECTION First Street & East Washington Avenue

NO. 19

THIS TIMING SET ON 11-3-2006

THIS TIMING CHANGED ON _____

INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EB WASHINGTON	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R
EB LT	←	← _y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
WB WASHINGTON	← R	← _y R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R
NB FIRST	R	R	R	R	R	R	R	R	← G	← _y G	G	G	G	G	Y	R
SB FIRST	R	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R
SB FIRST RIGHT-TURN	G	Y	R	R	R	R	R	R	R	R	R	R	G	G	G	G
WALK XING N-LEG OF FIRST	D w	D w	D _w	W	W	FD w	D w	D w	D w	D w	D w	D w	D w	D w	D w	D w
WALK XING S-LEG OF FIRST	D w	D w	D _w	W	FD w	FD w	D w	D w	D w	D w	D w	D w	D w	D w	D w	D w
WALK XING WASHINGTON ENTIRE E-LEG AND S-HALF OF W-LEG	D w	D w	D _w	D w	D w	D w	D w	D w	W=18" FDw=12"				D w	D w	D w	
WALK XING WASHINGTON NORTH HALF OF WEST LEG	D w	D w	D _w	D w	D w	D w	D w	D w	D w	D w	D w	W=9" FDw=9"		D w	D w	D w
TIME (sec)	V	3.0	eblt: 2.5 wblt 2.0	V	6	9	3.5	1.5	V	3.0	2.5	2	V	V	3.5	3.0

FLASHING OPERATION (emergency only): YELLOW - Washington Avenue RED - First Street

Remarks: Semi-actuated controller. First Street green, left-turn arrows, and WALK crossing E. Washington only appear if called via loop detectors or pedestrian push buttons. Pedestrian call for crossing north half of west-leg crosswalk places call for EBLT phase. EB and WB left-turn arrows are independent.

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

Configuration Controller Sequence

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

Hardware Alternate Sequence Enable: No

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

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

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

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

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

Phase Compatibility (MM)

1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

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

Administration (MM) 1-7-1

Enable Controller/Cabinet No
 Interlock CRC
 CRC (16 bit) AE07
 Enable Automatic Backup to Datakey Yes

Backup Prevent (MM) 1-1-3

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

Simultaneous Gap (MM) 1-1-4

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

Load Switch Assignments (MM) 1-3

Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together	
		Red	Yellow	Green	Dark		Red	Yellow		
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		

8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		
14	3	P				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

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

Enable TS2/MMU Type Cabinet: Yes
 Enable MMU Extended Status: Yes
 Enable SDLC Stop Time: Yes
 Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	Channel 2
1	5
1	6
1	11
1	13
2	5
2	6
2	9
2	11
3	8
3	12
3	14
4	8
4	10
4	12
4	13
4	14
5	9
5	13
6	9
6	11
6	13
8	10
8	12
8	13
8	14

9	11
10	12
10	13
10	14
11	13
12	13
12	14
13	14

Color Check Enable (MM) 1-4-3

Enable Color Check: No

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

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

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

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

Enable SDLC Diagnostic Test: No

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

1-5-1		NTCIP Backup Time (Sec):	0
DHCP		NTCIP UDP Port:	501
Enable:	No	Ethernet Priority:	1
Controller IP:	172.23.43.230	Port 2 Priority (Port C50S	4
Subnet Mask:	255.255.255.240	for 2070):	
Default		Port 3A Priority (Port C21S	2
Gateway IP:	172.23.43.225	for 2070):	
Server IP:	172.22.2.169	Port 3B Priority (Port C22S	3
		for 2070):	

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

Port	2 (C50S)	3A (C21S)	3B (C22S)
Comm Module	None	Auto	Auto
Protocol	TERMINAL	NTCIP	ECPIP
Enable	No	No	No
Data Rate (BPS)	9600	19.2K	1200
Data, Parity, Stop	8 N 1	8 N 1	8 N 1
Address	0	0	0
Telemetry Response Delay	0.0	0.0	0.9
Duplex - Half or Full	Half	Full	Full
Flow Control	Yes	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	14.0
RTS Turn Off Delay	n/a	n/a	2.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0
Expanded System Detector Address: 0

**System Detector
Assignment**

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

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 6

Wireless Access Code: 327723274

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

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

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

Display Options (MM) 1-7-2

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

Sign On (MM) 8-5

Sign On Message Line 1: First E. Washington
 Sign On Message Line 2: Signal 19

Software Modules (MM) 8-7

Application Version: 32.67.20
 OS (Boot) Version: 06.12.00

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

Logic #	Statement Control
1	E
2	E
3	E

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Logic Processor Page 2

Logic Statements (MM) 1-8-2

Logic #: 1 - ""

If:

	Peer T/F	Assignment	#	State
IF	-- F	VEH OVERLAP RED	1	IS On

Then:

Assignment	#	State
LP SET LOGIC FLAG	1	On

Logic #: 2 - ""

If:

	Peer T/F	Assignment	#	State
IF	-- F	LP LOGIC FLAG	1	IS On

Then:

Assignment	#	State
SIG SET OVLP GREEN	1	Off
SIG SET OLP RED 1	1	On

Logic #: 3 - ""

If:

	Peer T/F	Assignment	#	State
IF	-- F	VEH OVERLAP GREEN	1	IS On
AND	-- F	LP LOGIC FLAG	1	IS On

Then:

Assignment	#	State
LP DELAY FOR	2.0 Sec.	
LP SET LOGIC FLAG	1	Off

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Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Min Green	5	18	5	6	4	20	0	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	4	9	0	7	0	18	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	7	17	6	12	7	15	0	15	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.0	3.0	3.0	2.5	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	47	30	10	25	13	30	0	40	0	0	0	0	0	0	0	0
Max2	47	30	10	25	13	30	0	40	40	40	40	40	40	40	40	40
Max3	35	30	40	25	13	30	0	40	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.5	1.5	2.5	3.0	2.0	1.5	1.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
B	Normal	0.0	0.0	0.0	0.0

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
A	4	Yes	No	No	No		No	No	.
B	3	Yes	No	No	No		No	No	.
B	4	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	4	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	1	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	4	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	0	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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

Included	Pedestrian Overlaps
3	3
4	3

City of Madison



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

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

Overlap
A
B
C
D

Flash Thru Mon: Yes

Flash Time: 8

All Red: 0

Power Start Seq: 1

MUTCD Enabled: No

Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2

6

Overlap Exit
A
B
C
D

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

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Solutions that Move the World™

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Controller Options

Controller Options (MM) 2-6-1

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

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

Pre-Timed Mode (MM) 2-7

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

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

Phase Recall Options (MM) 2-8

Plan # 1

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

City of Madison



Solutions that Move the World™

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Coordination Options

Options (MM) 3-1

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

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

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

Split Demand (MM) 3-5

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

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

City of Madison



Solutions that Move the World™

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	80	Std (COS)	9	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	20	25	11	24	11	34	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Split Pattern

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

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	90	Std (COS)	17	Offsets In	Seconds
Offset Value	7s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	15	40	11	24	11	44	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	90	Std (COS)	10	Offsets In	Seconds
Offset Value	28s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

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

Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	16	45	12	17	18	43	0	29	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Split Pattern

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

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Seconds
Cycle	90	Std (COS)	82	Offsets In	Seconds
Offset Value	5s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	27	31	11	21	10	48	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

Coordinator Pattern # 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits In	Seconds
Cycle	100	Std (COS)	11	Offsets In	Seconds
Offset Value	57s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

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

Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N
Splits (Split Pat 5)	14	52	14	20	18	48	0	34	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Split Pattern

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

Coordinator Pattern # 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits In	Seconds
Cycle	100	Std (COS)	83	Offsets In	Seconds
Offset Value	7s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 6)	31	37	11	21	10	58	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

Coordinator Pattern # 7

Split Pattern	7	TS2 (Pat-Off)	2-1	Splits In	Seconds
Cycle	90	Std (COS)	12	Offsets In	Seconds
Offset Value	16s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

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

Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N
Splits (Split Pat 7)	25	29	11	25	11	43	0	32	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	86s	0s	0s

Misc. Data

Veh Perm 1 0 Veh Perm 2 0 Veh Perm 2 Disp 0
 Split Demand 0 Split Demand 0 Crossing Arterial 0
 Pat 1 Pat 2 Pat

Split Pattern

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

Coordinator Pattern # 8

Split Pattern	8	TS2 (Pat-Off)	2-2	Splits In	Seconds
Cycle	100	Std (COS)	13	Offsets In	Seconds
Offset Value	10s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 8)	34	28	11	27	10	52	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	94s	0s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

Coordinator Pattern # 10

Split Pattern	10	TS2 (Pat-Off)	3-1	Splits In	Seconds
Cycle	130	Std (COS)	14	Offsets In	Seconds
Offset Value	1s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

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

Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N
Splits (Split Pat 10)	53	39	13	25	12	80	0	38	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	130s	130s	0s	0s

Misc. Data

Veh Perm 1 0 Veh Perm 2 0 Veh Perm 2 Disp 0
 Split Demand 0 Split Demand 0 Crossing Arterial 0
 Pat 1 Pat 2 Pat

Split Pattern

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

Coordinator Pattern # 11

Split Pattern	11	TS2 (Pat-Off)	3-2	Splits In	Seconds
Cycle	80	Std (COS)	137	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Splits (Split Pat 11)	20	25	11	24	11	34	0	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

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Solutions that Move the World™

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

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	20	25	11	24	11	34	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall				X												
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	15	40	11	24	11	44	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	16	45	12	17	18	43	0	29	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	27	31	11	21	10	48	0	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	14	52	14	20	18	48	0	34	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	31	37	11	21	10	58	0	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

Split Pattern # 7

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	25	29	11	25	11	43	0	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	86s	0s	0s

Split Pattern # 8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	34	28	11	27	10	52	0	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	94s	0s	0s

Split Pattern # 10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N
Split (seconds)	53	39	13	25	12	80	0	38	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	130s	130s	0s	0s

Split Pattern # 11

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	E-L	W-T	N-L	S-T	W-L	E-T	N	N	N	N	N	N	N	N	N	N

Split (seconds)	20	25	11	24	11	34	0	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

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

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	1	Inhibit	1
Override Flash	No	Duration	20	CLR > GRN	No
Term Ovp Asap	No	PC Through Yel	No	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Red	Exit Options	CRD
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	12	5	25.5	25.5
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	25.5	25.5
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	15	0.0	40	25.5	25.5

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

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

Preempt Plan 4

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

Enable Yes Preempt Override Yes Interlock Enable No
 Det Lock Yes Delay 1 Inhibit 1
 Override Flash No Duration 20 CLR > GRN No
 Term Ovp No PC Through No Terminate No
 Asap Yel Phase
 Ped Dark No Track Clear No Dwell Flash Off
 Rsrv
 Linked Pmt 0 FL Exit Color Grn Exit Options CRD
 Exit Timing 0 Reservice 0 Fault Type Hard
 Plan

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	12	5	25.5	25.5
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	25.5	25.5

	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	15	0.0	40	25.5	25.5

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

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

Preempt Plan 5

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

Enable Yes Preempt Override Yes Interlock Enable No
 Det Lock Yes Delay 1 Inhibit 1
 Override Flash Yes Duration 20 CLR > GRN No
 Term Ovlp Asap No PC Through Yel No Terminate Phase No
 Ped Dark No Track Clear Rsrv No Dwell Flash Off
 Linked Pmt 0 FL Exit Color Grn Exit Options CRD
 Exit Timing Plan 0 Reservice 0 Fault Type Hard

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	25.5	25.5

	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	25.5	25.5
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	15	0.0	40	25.5	25.5

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

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

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

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

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

Mode: TSP

Free Default Pattern: 120

Headway Allowance: 0

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

TSP / SCP Split Pattern (MM) 4-4

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

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

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

**Time Base Action Plan
Action Plan (MM) 5-2**

Action Plan - 1 - "1"

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

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

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

Action Plan - 2 - "2"

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

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

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

Action Plan - 3 - "3"

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

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

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

Action Plan - 4 - "4"

Pattern 4 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret
 Pmt Cond Delay No

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

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

Action Plan - 5 - "5"

Pattern 5 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret
 Pmt Cond Delay No

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

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

Action Plan - 6 - "6"

Pattern 6 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag Plan 0
 Dimming Enable No Pmt Veh Priority Ret No
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

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

Action Plan - 7 - "7"

Pattern 7 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag Plan 0
 Dimming Enable No Pmt Veh Priority Ret No
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

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

Action Plan - 8 - "8"

Pattern 8 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag Plan 0
 Dimming Enable No Pmt Veh Priority Ret No
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

Action Plan - 9 - "9"

Pattern 9 Override Sys No
 Timing Plan 0 Sequence 1
 Veh Detector Plan 0 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag Plan 0
 Dimming Enable No Pmt Veh Priority Ret No
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

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

Action Plan - 10 - "10"

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

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

Action Plan - 11 - "11"

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

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

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

Action Plan - 98 - "98"

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

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

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

Action Plan - 99 - "99"

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

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

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

Action Plan - 100 - "100"

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

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

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

Event	Action Plan	Start Time
1	1	06:00
2	1	06:30
3	2	07:00
4	2	08:00
5	1	09:00
6	1	14:00
7	4	15:00
8	4	15:30
9	4	17:30
10	1	18:00
11	99	23:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	1	06:00
2	1	06:30
3	2	07:00
4	2	08:30
5	1	09:00
6	1	12:00
7	4	14:00
8	4	15:00
9	4	15:30
10	4	16:30
11	1	18:00
12	99	23:00

Day Plan #3 - "3"

Event	Action Plan	Start Time
1	1	07:00
2	99	23:00

Day Plan #4 - "4"

Event	Action Plan	Start Time

1	99	01:00
2	1	08:00
3	99	23:00

Day Plan #5 - "5"

Event	Action Plan	Start Time
1	100	02:30
2	1	07:00

Day Plan #6 - "6"

Event	Action Plan	Start Time
1	99	01:30
2	1	07:00
3	7	16:45

Day Plan #7 - "7"

Event	Action Plan	Start Time
1	99	01:00
2	1	07:00
3	2	11:00
4	1	15:00
5	5	17:30
6	1	20:15

Day Plan #8 - "8"

Event	Action Plan	Start Time
1	99	01:30
2	1	05:30
3	3	16:00
4	1	19:30
5	6	23:00

Day Plan #11 - "11"

Event	Action Plan	Start Time
1	99	01:30
2	1	05:30
3	3	06:45
4	5	07:15
5	3	08:15
6	4	15:00
7	6	16:15
8	4	17:15
9	1	17:45

Day Plan #12 - "12"

--	--	--

Event	Action Plan	Start Time
1	99	01:30
2	1	07:00
3	3	09:00
4	1	11:15
5	6	15:00
6	1	17:00

Day Plan #13 - "13"

Event	Action Plan	Start Time
1	99	05:30
2	1	06:00
3	3	06:45
4	5	07:15
5	3	08:15
6	1	08:45
7	4	15:00
8	6	16:15
9	4	17:15
10	1	17:45
11	99	23:00

Day Plan #14 - "14"

Event	Action Plan	Start Time
1	1	06:00
2	3	06:45
3	5	07:15
4	3	08:15
5	1	08:45
6	4	15:00
7	6	16:15
8	5	17:15
9	1	18:30
10	6	22:00

Day Plan #15 - "15"

Event	Action Plan	Start Time
1	6	00:00
2	4	01:30
3	1	02:00

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

Day Plan No.: 1

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

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

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

Schedule Number - 2

Day Plan No.: 2

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

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

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

Schedule Number - 3

Day Plan No.: 3

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

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

							X
--	--	--	--	--	--	--	---

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

Schedule Number - 4

Day Plan No.: 4

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

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

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

Schedule Number - 5

Day Plan No.: 5

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

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

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

Schedule Number - 6

Day Plan No.: 6

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

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

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

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

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

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
1	FIXED	11	26	2016	7

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

Detectors**Detectors - Pg 1****Veh Det Phase Assignment (MM) 6-1****Vehicle Detector Plan Number - 1**

Veh Detector	Called Phase	Type
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Vehicle Detector Plan Number - 2

Veh Detector	Called Phase	Type
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Vehicle Detector Plan Number - 3

Veh Detector	Called Phase	Type
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Vehicle Detector Plan Number - 4

Veh Detector	Called Phase	Type
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Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	
2	N-NTCIP	Yes	Inbound left turn
3	S-STANDARD	Yes	
4	S-STANDARD	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	S-STANDARD	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	S-STANDARD	Yes	
16	C-CALLING	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	S-STANDARD	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	

24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	
60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

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

2	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	6.0	Passage	5.0	0	No	0	None	No	No	No
8	0	No	Yes	10.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	Yes	10.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	10.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
37	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
43	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

51	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
--------------	-------	----------	-------------	------------	------------	----------------------------	---------------------------	-------------------	-----------------	---------	------------	------------	-----------------

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
--------------	-------	----------	-------------	------------	------------	----------------------------	---------------------------	-------------------	-----------------	---------	------------	------------	-----------------

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
--------------	-------	----------	-------------	------------	------------	----------------------------	---------------------------	-------------------	-----------------	---------	------------	------------	-----------------

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

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

13	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X

City of Madison



Solutions that Move the World™

East Washington - First St. - East Washington - First - Econolite Type - Cobalt

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

NTCIP Log ECPI Log Length Unit:
 Period: 60 Period: 0 Inches

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

Vehicle Detector Diagnostics (MM) 6-5**Veh Diagnostic Plan Number - 1**

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

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

Det	Counts	Act	Pres	Multiplier
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Ped Diagnostic Plan Number - 2

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

Ped Diagnostic Plan Number - 3

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

Ped Diagnostic Plan Number - 4

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

**DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION
Madison, Wisconsin**

Office _____
Shop _____
Field _____

TRAFFIC SIGNAL SEQUENCE/TIMING DATA

INTERSECTION: E Johnson Street & First Street THIS TIMING SET ON: 1/30/2020
 INTERSECTION NO.: 93 THIS TIMING CHANGED ON: _____

INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
WB Johnson	G	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R		
WBLT Johnson	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R		
EB Johnson	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R		
EB Right Turn Johnson	→R*	→R*	→R*	→R*	→R*	→R*	→R	→R	→R	→R	→R	→R	→R	→R	→R	→G	→Y	→R		
SB Driveway	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	R	R	R		
NB First	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←Y	←R		
NB First St. Right Turn	→G	→Y	→R	→R	→R	→R	→R	→R	→R	→R	→R	→R	→R	→R	→R	→G**	→G	→G		
Bike Crossing First	R	R	R	G*	Y*	R*	R	R	R	R	R	R	R	R	R	R	R	R		
Pedestrian Crossing First	DW	DW	DW	W = 7", FDw = 22"			DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW		
Pedestrian Crossing Johnson, West Leg	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDw	DW	DW	DW	DW	DW	DW		
Pedestrian Crossing Johnson, East Leg	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W = 7", FDw = 24" **								DW	DW
Time (sec):	V	3.5	4.0	10.0	3.0	3.5	V	V	3.5	3.0	22	8	V	3.0	2.0	V	3.0	2.0		

FLASHING OPERATION: YELLOW - JOHNSON RED - FIRST

Remarks: SIGNAL NOT PROGRAMMED TO FLASH DURING NORMAL OPERATIONS
 *EBRT NTOR blank out board comes up with WBLT phase, and stays on thru bike phase.
 **When pedestrian phase crossing the East Leg of Johnson St. is timing, NBRT remains a RED ARROW until pedestrian timing is completed.

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Configuration Controller Sequence

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

Hardware Alternate Sequence Enable: No

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

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B													

Sequence 1

Ring 1	| 1 |	2	. |	4	8	.	.	.	.	.	.	.	.	.	.	.
Ring 2	| 3 |	5	6 |	7	.	.	.	.	.	.	.	.	.	.	.	.
Ring 3	| . |	.	. |	9	10	.	.	.	.	.	.	.	.	.	.	.

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

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

Phase Compatibility (MM)

1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

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

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC No
 CRC (16 bit) 58CD
 Enable Automatic Backup to Datakey Yes

Backup Prevent (MM) 1-1-3

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

Simultaneous Gap (MM) 1-1-4

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

Load Switch Assignments (MM) 1-3

Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
		Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X	
2	2	V				-	Auto	X	X
3	0	.				-	Auto	X	
4	4	V				-	Auto	X	X
5	5	V				-	Auto	X	
6	3	O				-	Auto	X	X
7	0	.				-	Auto	X	

8	8	V				-	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	7	P				-	Auto			
12	8	P				-	Auto			
13	3	O				-	Auto	X		X
14	1	O				-	Auto	X		X
15	2	O				-	Auto	X		
16	4	O				+	Auto	X		X

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

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

Enable TS2/MMU Type Cabinet: Yes

Enable MMU Extended Status: Yes

Enable SDLC Stop Time: No

Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	Channel 2
1	12
1	13
1	14
2	5
2	9
2	13
2	16
4	10
4	11
4	12
5	9
5	13
8	11
8	12
8	14
8	15
8	16
9	13
9	16
10	11
10	12
11	12
11	15
11	16
12	13
12	14

13	14
13	16
14	15
14	16

Color Check Enable (MM) 1-4-3

Enable Color Check: No

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

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

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

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

Enable SDLC Diagnostic Test: No

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Configuration Communications 1 (SDLC)

Ethernet Port Configuration (MM) 1-5-1		NTCIP (MM) 1-5-5	
DHCP Enable:	No	NTCIP Backup Time (Sec):	61
Controller IP:	172.23.115.69	NTCIP UDP Port:	501
Subnet Mask:	255.255.255.240	Ethernet Priority:	1
Default Gateway IP:	172.23.115.65	Port 2 Priority (Port C50S for 2070):	4
Server IP:	172.22.2.169	Port 3A Priority (Port C21S for 2070):	2
		Port 3B Priority (Port C22S for 2070):	3

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

Port	2 (C50S)	3A (C21S)	3B (C22S)
Protocol	NTCIP	NTCIP	TERMINAL
Enable	Yes	Yes	No
Data Rate (BPS)	9600	19.2K	1200
Data, Parity, Stop	8 N 1	8 N 1	8 O 1
Address	1	1	0
Telemetry Response Delay	0.0	0.0	0.0
Duplex - Half or Full	Full	Full	Full
Flow Control	Yes	Yes	Yes
Group Address	0	0	0
Single Flag Enable	Yes	Yes	Yes
RTS to CTS Delay	n/a	n/a	3.0
RTS Turn Off Delay	n/a	n/a	2.0
Dropout Time	10	10	10
Early RTS	n/a	n/a	No
Telemetry Mode	n/a	n/a	FSK
ATCS Railroad	0	n/a	n/a
ATCS Railroad Line	0	n/a	n/a
ATCS Group	0	n/a	n/a
Wayside Device	0	n/a	n/a
ATC Device	0	n/a	n/a
Wayside Subnode	0	n/a	n/a
ATC Subnode	0	n/a	n/a

ECPIP (MM) 1-5-6

Controller Address: 0

Expanded System Detector Address: 0

**System Detector
Assignment**

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

Wireless Configuration (MM) 1-5-7

Wireless Channel Number: 1

Wireless Access Code:

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

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

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

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Backlight Enable:	Yes
LED Mode:	Auto
Display Mode:	Advanced
Screen Format:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Signal
 Sign On Message Line 2: First Johnson

Software Modules (MM) 8-7

Application Version: 32.66.10
 OS (Boot) Version: 06.07.00

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

Logic #	Statement Control
1	E
2	E
3	E

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Logic Processor Page 2**Logic Statements (MM) 1-8-2****Logic #: 1****If:**

	Peer T/F Assignment	#	State
IF	-- F CTR PHASE TIMING	4	IS On

Then:

Assignment	#	State
CTR OMIT PED PHASE	8	On

Logic #: 2**If:**

	Peer T/F Assignment	#	State
IF	-- F CTR PHASE TIMING	1	IS On
OR	-- F CTR PHASE TIMING	5	IS On

Then:

Assignment	#	State
SIG SET OLP YELLOW	4	On

Else:

Assignment	#	State
SIG SET OLP YELLOW	4	Off

Logic #: 3**If:**

	Peer T/F Assignment	#	State
IF	-- F CTR ON PHASE CHECK	5	IS On

Then:

Assignment	#	State
SIG SET OLP RED 4	4	On

Else:

Assignment	#	State
SIG SET OLP RED 4	4	Off

Logic #: 4

If:

	Peer	T/F	Assignment	#	State
IF	--	F	PED OL WALK	8	IS On
OR	--	F	PED OL PED CLEAR	8	IS On

Then:

Assignment	#	State
SIG SET OLP RED	2	On
SIG SET OLP YELLOW	2	Off
SIG SET OVLP GREEN	2	Off

Logic #: 5

If:

	Peer	T/F	Assignment	#	State
IF	--	F	CTR PHASE TIMING	1	IS On

Then:

Assignment	#	State
SIG SET OLP YELLOW	4	On

Else:

Assignment	#	State
SIG SET OLP YELLOW	4	Off

Logic #: 6

If:

	Peer	T/F	Assignment	#	State
IF	--	F	CTR ON PHASE CHECK	1	IS On

Then:

Assignment	#	State
SIG SET OLP RED	4	On

Else:

Assignment	#	State
SIG SET OLP RED	4	Off

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**Controller Timing Plan (MM) 2-1
Plan 1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	8	10	8	4	10	10	10	10	8	8	5	5	5	5	5	5
Bk Min Green	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	22	0	0	7	1	4	0	0	0	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	22	0	8	0	0	24	10	4	0	0	7	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.5	2.5	2.5	3.0	2.0	2.5	2.5	2.5	2.5	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	30	45	20	8	10	30	35	20	10	10	35	15	35	35	35	35
Max2	20	40	30	20	10	40	40	25	15	15	40	15	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	3.5	3.5	3.0	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	4.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	1.0	0.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	5.0	5.0	2.0	5.0	5.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	20	0	20	0	20	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	10	0	10	0	10	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	2.5	0.0	2.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
C	Normal	0.0	0.0	0.0	0.0
M	Other/Econolite	1.0	3.5	1.5	0.0

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
A	7	No	No	Yes	No		No	No	.
A	8	Yes	No	No	No		No	No	.
B	8	Yes	No	Yes	No		No	No	.
C	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	4	0	7	3.0	0.0	4
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	4	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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

Included	Pedestrian Overlaps
4	8
8	8

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First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Controller Start / Flash Data (MM) 2-5

Start Up

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

Overlap
A
B
C
D
E
F
G
H
M
N

Flash Thru Mon: Yes
 Flash Time: 8
 All Red: 0
 Power Start Seq: 1
 MUTCD Enabled: No
 Y->G: n/a

Automatic Flash

Entry

2
6

Exit
2
6

Overlap Exit
A
B
C
D
E
F
G
H
M
N

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

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First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Controller Options

Controller Options (MM) 2-6-1

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

Ped Clear Protect: On Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: Yes

Pre-Timed Mode (MM) 2-7

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

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

Phase Recall Options (MM) 2-8

Plan # 1

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

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

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

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

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

Split Demand (MM) 3-5

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

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

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Solutions that Move the World™

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Seconds
Cycle	80	Std (COS)	9	Offsets In	Seconds
Offset Value	70s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 1)	19	32	15	12	17	15	29	17	0	15	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	80s	76s	15s	0s

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

Split Pattern

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

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Seconds
Cycle	90	Std (COS)	10	Offsets In	Seconds
Offset Value	65s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 2)	25	33	15	12	17	19	29	20	0	15	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	80s	15s	0s

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

Split Pattern

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

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Seconds
Cycle	100	Std (COS)	11	Offsets In	Seconds
Offset Value	85s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

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

Splits (Split Pat 3)	30	35	15	12	17	21	29	23	0	10	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	82s	10s	0s

Misc. Data

Veh Perm 1 0 Veh Perm 2 0 Veh Perm 2 Disp 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern

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

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Seconds
Cycle	90	Std (COS)	0	Offsets In	Seconds
Offset Value	65s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase					
Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 4)	25	33	15	12	17	19	29	20	0	10	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	80s	10s	0s

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

Split Pattern

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

Coordinator Pattern # 5

Split Pattern	5	TS2 (Pat-Off)	1-2	Splits In	Seconds
Cycle	110	Std (COS)	0	Offsets In	Seconds
Offset Value	20s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase					
Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

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

Splits (Split Pat 5)	25	52	15	12	27	19	29	21	0	10	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	110s	90s	10s	0s

Misc. Data

Veh Perm 1 0 Veh Perm 2 0 Veh Perm 2 Disp 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern

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

Coordinator Pattern # 6

Split Pattern	6	TS2 (Pat-Off)	1-3	Splits In	Seconds
Cycle	100	Std (COS)	0	Offsets In	Seconds
Offset Value	70s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 6)	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Split Pattern

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

Coordinator Pattern # 10

Split Pattern	10	TS2 (Pat-Off)	3-1	Splits In	Seconds
Cycle	85	Std (COS)	0	Offsets In	Seconds
Offset Value	42s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

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

Splits (Split Pat 10)	25	38	0	22	0	63	0	30	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	115s	63s	0s	0s

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

Split Pattern

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

Coordinator Pattern # 13

Split Pattern	13	TS2 (Pat-Off)	4-1	Splits In	Seconds
Cycle	90	Std (COS)	0	Offsets In	Seconds
Offset Value	20s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 13)	22	33	15	12	17	16	35	23	0	10	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	90s	83s	10s	0s

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

Split Pattern

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

Coordinator Pattern # 15

Split Pattern	15	TS2 (Pat-Off)	4-3	Splits In	Seconds
Cycle	100	Std (COS)	0	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase	No	Action Plan	0		
Reservice					
Max Select	None	Force Off	None		

Split Preference Phases

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

Description																
Splits (Split Pat 15)	20	50	15	12	13	37	30	18	0	10	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100s	95s	10s	0s

Misc. Data

Veh Perm 1 0 Veh Perm 2 0 Veh Perm 2 Disp 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern

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

Coordinator Pattern # 21

Split Pattern	21	TS2 (Pat-Off)	6-3	Splits In	Seconds
Cycle	85	Std (COS)	0	Offsets In	Seconds
Offset Value	42s	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase					
Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Splits (Split Pat 21)	25	38	0	22	0	63	0	30	0	66	0	19	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	115s	63s	66s	0s

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

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

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Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

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

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	19	32	15	12	17	15	29	17	0	15	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	80s	76s	15s	0s

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	25	33	15	12	17	19	29	20	0	15	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	90s	80s	15s	0s

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	30	35	15	12	17	21	29	23	0	10	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	100s	82s	10s	0s

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	25	33	15	12	17	19	29	20	0	10	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time					X											
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	90s	80s	10s	0s

Split Pattern # 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	25	52	15	12	27	19	29	21	0	10	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time					X											
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	110s	90s	10s	0s

Split Pattern # 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0
Coord Phase																
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

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

Split Pattern # 7

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	10	65	0	25	0	75	0	25	0	84	0	16	0	0	0	0
Coord Phase		X				X				X						
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	125s	75s	84s	0s

Split Pattern # 8

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	12	63	0	25	0	75	0	25	0	84	0	16	0	0	0	0
Coord Phase		X				X				X						
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	125s	75s	84s	0s

Split Pattern # 10

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	25	38	0	22	0	63	0	30	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time	X															
Omit Phase													X	X	X	X

Ring	1	2	3	4
Split Sum	115s	63s	0s	0s

Split Pattern # 13

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	22	33	15	12	17	16	35	23	0	10	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																

Pedestrian Recall																	
Recall to Max. Time																	
Omit Phase									X	X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	90s	83s	10s	0s

Split Pattern # 15

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	20	50	15	12	13	37	30	18	0	10	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100s	95s	10s	0s

Split Pattern # 21

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Split (seconds)	25	38	0	22	0	63	0	30	0	66	0	19	0	0	0	0
Coord Phase		X				X				X						
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time	X															
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	115s	63s	66s	0s

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 1

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

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	1	Inhibit	1
Override Flash	Yes	Duration	30	CLR > GRN	No
Term Ovp	No	PC Through	No	Terminate	No
Asap		Yel		Phase	
Ped Dark	No	Track Clear	No	Dwell Flash	Off
Linked Pmt	0	Rsrv		Exit Options	Off
Exit Timing	0	FL Exit Color	Red	Fault Type	Hard
Plan		Reservice	0		

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	1	7	1	25.5	25.5
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	37	0	0	25.5	25.5
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	20	0.0	0	25.5	25.5

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

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

Preempt Plan 3

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

Enable Yes Preempt No Interlock No
 Override Enable
 Det Lock Yes Delay 1 Inhibit 1
 Override Flash No Duration 20 CLR > GRN No
 Term Ovlp No PC Through No Terminate No
 Asap No Yel Phase
 Ped Dark No Track Clear No Dwell Flash Off
 Rsrv
 Linked Pmt 0 FL Exit Color Grn Exit Options Off
 Exit Timing 0 Reservice 0 Fault Type Hard
 Plan

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	25.5	25.5
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	25.5	25.5

	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	15	2.0	35	25.5	25.5

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

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

Preempt Plan 4

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

Enable Yes Preempt No Interlock No
 Override
 Det Lock Yes Delay 1 Inhibit 0
 Override Flash No Duration 20 CLR > GRN No
 Term Ovlp No PC Through No Terminate No
 Asap Yel Phase
 Ped Dark No Track Clear No Dwell Flash Off
 Rsrv
 Linked Pmt 0 FL Exit Color Grn Exit Options Off
 Exit Timing 0 Reservice 0 Fault Type Hard
 Plan

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

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	5	25.5	25.5

	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	5	0	0	25.5	25.5
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	40	25.5	25.5

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

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

Preempt Plan 5

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

Enable Yes Preempt Override No Interlock Enable No
 Det Lock Yes Delay 1 Inhibit 0
 Override Flash No Duration 20 CLR > GRN No
 Term Ovlp No PC Through Yel No Terminate Phase No
 Ped Dark No Track Clear Rsrv No Dwell Flash Off
 Linked Pmt 0 FL Exit Color Grn Exit Options Off
 Exit Timing Plan 0 Reservice 0 Fault Type Hard

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

--	--	--	--	--	--

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	255	10	25.5	25.5
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	5	0	0	25.5	25.5
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	15	2.0	35	25.5	25.5

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Preempt TSP/SCP Plan and Split

TSP / SCP Plan (MM) 4-3

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

Mode: TSP

Free Default Pattern: 120

Headway Allowance: 100

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

TSP / SCP Split Pattern (MM) 4-4

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

**Time Base Action Plan
Action Plan (MM) 5-2**

Action Plan - 1

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

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

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

Action Plan - 2

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

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

Action Plan - 3

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

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

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

Action Plan - 4

Pattern 4 Override Sys No
 Timing Plan 1 Sequence 0
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret Ret
 Pmt Cond Delay No

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

Action Plan - 5

Pattern 5 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret Ret
 Pmt Cond Delay No

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

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

Action Plan - 6

Pattern 6 Override Sys No
 Timing Plan 1 Sequence 1
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag 0
 Dimming Enable No Pmt Veh Priority No
 Ret
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

Action Plan - 7

Pattern 7 Override Sys No
 Timing Plan 1 Sequence 0
 Veh Detector Plan 1 Det Log None
 Flash No Red Rest No
 Veh Det Diag Plan 0 Ped Det Diag 0
 Dimming Enable No Pmt Veh Priority No
 Ret
 Pmt Ped Priority Ret No Pmt Queue Delay No
 Pmt Cond Delay No

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

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

Action Plan - 8

Pattern 8 Override Sys Yes
 Timing Plan 0 Sequence 0
 Veh Detector Plan 0 Det Log None
 Flash Yes Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret Ret
 Pmt Cond Delay No

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

Action Plan - 9

Pattern 9 Override Sys No
 Timing Plan 0 Sequence 0
 Veh Detector Plan 0 Det Log None
 Flash No Red Rest No
 Veh Det Diag 0 Ped Det Diag 0
 Plan Plan
 Dimming Enable No Pmt Veh Priority No
 Ret Ret
 Pmt Ped Priority No Pmt Queue Delay No
 Ret Ret
 Pmt Cond Delay No

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

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

Action Plan - 10

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

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

Action Plan - 11

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

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

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

Action Plan - 99

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

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

Action Plan - 100

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

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

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

Day Plan #1

Event	Action Plan	Start Time
1	99	01:45
2	1	06:00
3	2	06:30
4	2	07:00
5	2	08:30
6	1	09:00
7	4	16:00
8	1	18:00
9	99	23:30
10	4	15:00
13	0	00:30

Day Plan #2

Event	Action Plan	Start Time
1	1	06:00
2	2	06:30
3	3	07:15
4	2	08:15
5	1	09:00
6	4	15:00
7	1	18:00

Day Plan #3

Event	Action Plan	Start Time
1	99	01:30
2	1	07:00
3	2	11:00
4	1	19:00

Day Plan #4

Event	Action Plan	Start Time
1	99	01:30
2	1	07:00
3	2	09:00
4	1	19:00

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

Day Plan No.: 1

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

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

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

Schedule Number - 2

Day Plan No.: 2

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

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

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

Schedule Number - 3

Day Plan No.: 3

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

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

							X
--	--	--	--	--	--	--	---

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

Schedule Number - 4

Day Plan No.: 4

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

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Time Base Exceptions

Exception Day Program (MM) 5-5

Excep Day	Float/Fixed	Mon/Mon	DOW/DOM	WOM/Year	Day Plan
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City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Detectors**Detectors - Pg 1****Veh Det Phase Assignment (MM) 6-1****Vehicle Detector Plan Number - 1**

Veh Detector	Called Phase	Type
1	2	N
2	2	N
5	5	N
6	8	N
7	8	N
8	1	N
9	8	N
10	8	N
12	1	N
13	1	N
14	2, 3	N
15	2, 3	N
16	2, 3	N
49	4	N
50	4	N

Vehicle Detector Plan Number - 2

Veh Detector	Called Phase	Type
--------------	--------------	------

Vehicle Detector Plan Number - 3

Veh Detector	Called Phase	Type
--------------	--------------	------

Vehicle Detector Plan Number - 4

Veh Detector	Called Phase	Type
--------------	--------------	------

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	N-NTCIP	Yes	
2	N-NTCIP	Yes	
3	N-NTCIP	Yes	
4	N-NTCIP	Yes	
5	N-NTCIP	Yes	
6	N-NTCIP	Yes	
7	N-NTCIP	Yes	
8	N-NTCIP	Yes	

9	N-NTCIP	Yes	
10	N-NTCIP	Yes	
11	N-NTCIP	Yes	
12	N-NTCIP	Yes	WBLT Stop Bar
13	N-NTCIP	Yes	WBLT mid
14	N-NTCIP	Yes	WB mid Right
15	N-NTCIP	Yes	WB Mid Center
16	N-NTCIP	Yes	WB mid left
17	N-NTCIP	Yes	
18	N-NTCIP	Yes	
19	N-NTCIP	Yes	
20	N-NTCIP	Yes	
21	N-NTCIP	Yes	
22	N-NTCIP	Yes	
23	N-NTCIP	Yes	
24	N-NTCIP	Yes	
25	N-NTCIP	Yes	
26	N-NTCIP	Yes	
27	N-NTCIP	Yes	
28	N-NTCIP	Yes	
29	N-NTCIP	Yes	
30	N-NTCIP	Yes	
31	N-NTCIP	Yes	
32	N-NTCIP	Yes	
33	N-NTCIP	Yes	
34	N-NTCIP	Yes	
35	N-NTCIP	Yes	
36	N-NTCIP	Yes	
37	N-NTCIP	Yes	
38	N-NTCIP	Yes	
39	N-NTCIP	Yes	
40	N-NTCIP	Yes	
41	N-NTCIP	Yes	
42	N-NTCIP	Yes	
43	N-NTCIP	Yes	
44	N-NTCIP	Yes	
45	N-NTCIP	Yes	
46	N-NTCIP	Yes	
47	N-NTCIP	Yes	
48	N-NTCIP	Yes	
49	N-NTCIP	Yes	Autoscope for Driveway
50	N-NTCIP	Yes	Autoscope for driveway
51	N-NTCIP	Yes	
52	N-NTCIP	Yes	
53	N-NTCIP	Yes	
54	N-NTCIP	Yes	
55	N-NTCIP	Yes	
56	N-NTCIP	Yes	
57	N-NTCIP	Yes	

58	N-NTCIP	Yes	
59	N-NTCIP	Yes	
60	N-NTCIP	Yes	
61	N-NTCIP	Yes	
62	N-NTCIP	Yes	
63	N-NTCIP	Yes	
64	N-NTCIP	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	2	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
3	0	No	No	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	No	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	1.0	Passage	0.0	0	No	0	Yellow	No	No	No
6	8	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
7	8	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
8	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	8	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
10	8	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
11	1	No	No	0.0	Passage	0.0	0	No	0	None	No	No	No
12	1	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
13	1	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
14	3	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
15	3	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
16	3	No	Yes	0.0	Passage	0.0	0	No	0	Yellow	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
20	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
28	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
32	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
33	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
34	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
35	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
36	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

37	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
38	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
39	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
40	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
41	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
42	0	No	Yes	0.0	Passage	0.0	0	No	6	None	No	No	No
43	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
44	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
45	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
46	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
47	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
48	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
49	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
50	4	No	Yes	5.0	Passage	0.0	0	No	0	None	No	No	No
51	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
52	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
53	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
54	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
55	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
56	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
57	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
58	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
59	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
60	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
61	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
62	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
63	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
64	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 3

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 4

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment (MM) 6-3

Mode: Econolite

Ped

Called Phase

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

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

City of Madison



Solutions that Move the World™

First - Johnson - First @ Johnson cobalt - Econolite Type - ASC/3

Detectors

Detectors - Pg 2

Log - Speed Detector Setup (MM) 6-4

NTCIP Log ECPI Log Length Unit:
 Period: 60 Period: 0 Inches

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

Vehicle Detector Diagnostics (MM) 6-5

Veh Diagnostic Plan Number - 1

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 2

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 3

Det	Counts	Act	Pres	Multiplier	Failed Time	Failed Call Delay

Veh Diagnostic Plan Number - 4

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

Pedestrian Detector Diagnostics (MM) 6-6**Ped Diagnostic Plan Number - 1**

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

Ped Diagnostic Plan Number - 2

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

Ped Diagnostic Plan Number - 3

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

Ped Diagnostic Plan Number - 4

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

Appendix B

Peak Hour Analysis Outputs



















Background Traffic

Full Build Traffic

Full Build Traffic – with Modifications

Lanes, Volumes, Timings
100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 	 	  		 	 
Traffic Volume (vph)	295	350	785	165	455	1000
Future Volume (vph)	295	350	785	165	455	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	1.00	0.99		0.97	0.99	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3273	2656	4940	1538	3335	3438
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3263	2621	4940	1487	3302	3438
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30		30	
Link Distance (ft)	310		700		500	
Travel Time (s)	8.5		15.9		11.4	
Confl. Peds. (#/hr)	1	1		14	14	
Confl. Bikes (#/hr)		1		3		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%
Adj. Flow (vph)	351	292	935	122	542	1190
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	292	935	122	542	1190
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24		24	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.7	28.5	40.0	55.3	17.2	64.8
Actuated g/C Ratio	0.15	0.32	0.44	0.61	0.19	0.72
v/c Ratio	0.70	0.35	0.43	0.13	0.85	0.48
Control Delay	48.4	28.9	18.2	6.0	49.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	28.9	18.2	6.0	49.2	6.4
LOS	D	C	B	A	D	A
Approach Delay	39.5		16.8			19.8
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 22.6
 Intersection LOS: C
 Intersection Capacity Utilization 52.4%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	351	292	935	122	542	1190
v/c Ratio	0.70	0.35	0.43	0.13	0.85	0.48
Control Delay	48.4	28.9	18.2	6.0	49.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	28.9	18.2	6.0	49.2	6.4
Queue Length 50th (ft)	91	67	133	22	153	135
Queue Length 95th (ft)	128	m91	154	38	#199	157
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	545	848	2197	942	654	2473
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	0.64	0.34	0.43	0.13	0.83	0.48

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.

HCM 6th Signalized Intersection Summary

100: E Johnson Street & First Street

04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	295	350	785	165	455	1000
Future Volume (veh/h)	295	350	785	165	455	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1796	1796	1826	1826	1826	1826
Adj Flow Rate, veh/h	351	292	935	122	542	1190
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	5	5	5	5
Cap, veh/h	451	853	2345	911	616	2555
Arrive On Green	0.14	0.14	0.47	0.47	0.18	0.74
Sat Flow, veh/h	3319	2679	5149	1490	3374	3561
Grp Volume(v), veh/h	351	292	935	122	542	1190
Grp Sat Flow(s),veh/h/ln	1659	1340	1662	1490	1687	1735
Q Serve(g_s), s	9.2	7.5	11.0	3.2	14.1	12.4
Cycle Q Clear(g_c), s	9.2	7.5	11.0	3.2	14.1	12.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	451	853	2345	911	616	2555
V/C Ratio(X)	0.78	0.34	0.40	0.13	0.88	0.47
Avail Cap(c_a), veh/h	553	936	2345	911	656	2555
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	37.6	23.5	15.5	7.6	35.8	4.8
Incr Delay (d2), s/veh	5.7	0.2	0.5	0.3	12.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	4.3	7.4	2.6	11.0	6.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.2	23.7	16.0	7.9	48.4	5.4
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	643		1057			1732
Approach Delay, s/veh	34.4		15.1			18.9
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.9	48.8			72.8	17.2
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	16.1	13.0			14.4	11.2
Green Ext Time (p_c), s	0.4	9.3			15.1	1.0
Intersection Summary						
HCM 6th Ctrl Delay			20.6			
HCM 6th LOS			C			

Lanes, Volumes, Timings
 200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↕	
Traffic Volume (vph)	1	630	645	10	1	1
Future Volume (vph)	1	630	645	10	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1759	4838	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1759	4838	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	8%	8%	7%	7%	1%	1%
Adj. Flow (vph)	1	778	796	12	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	779	808	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔ ↑↑↑			↔	
Traffic Vol, veh/h	1	630	645	10	1	1
Future Vol, veh/h	1	630	645	10	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	8	8	7	7	1	1
Mvmt Flow	1	778	796	12	1	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	809	0	-	0	1584 406
Stage 1	-	-	-	-	803 -
Stage 2	-	-	-	-	781 -
Critical Hdwy	5.42	-	-	-	6.065 7.115
Critical Hdwy Stg 1	-	-	-	-	6.615 -
Critical Hdwy Stg 2	-	-	-	-	5.415 -
Follow-up Hdwy	3.176	-	-	-	3.6595 3.9095
Pot Cap-1 Maneuver	792	-	-	-	221 *788
Stage 1	-	-	-	-	659 -
Stage 2	-	-	-	-	440 -
Platoon blocked, %	1	-	-	-	1 1
Mov Cap-1 Maneuver	791	-	-	-	220 *786
Mov Cap-2 Maneuver	-	-	-	-	220 -
Stage 1	-	-	-	-	657 -
Stage 2	-	-	-	-	440 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	791	-	-	-	344
HCM Lane V/C Ratio	0.002	-	-	-	0.007
HCM Control Delay (s)	9.6	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

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

Lanes, Volumes, Timings
300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↕↕		↙	↕↕			↕↕			↕↕			
Traffic Volume (vph)	10	620	1	1	645	10	1	1	1	10	1	10		
Future Volume (vph)	10	620	1	1	645	10	1	1	1	10	1	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
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		
Ped Bike Factor														
Frt					0.998					0.955				
Flt Protected	0.999		0.950						0.984		0.977			
Satd. Flow (prot)	0	3370	0	1671	3336	0	0	1768	0	0	1718	0		
Flt Permitted	0.999		0.950						0.984		0.977			
Satd. Flow (perm)	0	3370	0	1671	3336	0	0	1768	0	0	1718	0		
Link Speed (mph)					25					25				
Link Distance (ft)					330					190				
Travel Time (s)					9.0					5.2				
Confl. Peds. (#/hr)	1			1	1			1	1			1		
Confl. Bikes (#/hr)			1					1			1	1		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84		
Heavy Vehicles (%)	7%	7%	7%	8%	8%	8%	1%	1%	1%	1%	1%	1%		
Adj. Flow (vph)	12	738	1	1	768	12	1	1	1	12	1	12		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	751	0	1	780	0	0	3	0	0	25	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				
Link Offset(ft)					0					0				
Crosswalk Width(ft)					16					16				
Two way Left Turn Lane														
Headway 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		
Turning Speed (mph)	15		9		15		9		15		9			
Sign Control	Free				Free				Stop					

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.6%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
 300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔			↔			↔	
Traffic Vol, veh/h	10	620	1	1	645	10	1	1	1	10	1	10
Future Vol, veh/h	10	620	1	1	645	10	1	1	1	10	1	10
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	7	7	7	8	8	8	1	1	1	1	1	1
Mvmt Flow	12	738	1	1	768	12	1	1	1	12	1	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	781	0	0	740	0	0	1152	1547	372	1172	1541	392
Stage 1	-	-	-	-	-	-	764	764	-	777	777	-
Stage 2	-	-	-	-	-	-	388	783	-	395	764	-
Critical Hdwy	4.24	-	-	4.26	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.27	-	-	2.28	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	1131	-	-	824	-	-	*313	165	628	300	167	*822
Stage 1	-	-	-	-	-	-	*365	413	-	713	638	-
Stage 2	-	-	-	-	-	-	*775	634	-	604	413	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1130	-	-	823	-	-	*302	162	627	293	163	*821
Mov Cap-2 Maneuver	-	-	-	-	-	-	*302	162	-	293	163	-
Stage 1	-	-	-	-	-	-	*358	405	-	700	637	-
Stage 2	-	-	-	-	-	-	*761	632	-	590	405	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	18.5	14.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	1130	-	-	823	-	-	400
HCM Lane V/C Ratio	0.013	0.011	-	-	0.001	-	-	0.063
HCM Control Delay (s)	18.5	8.2	0.1	-	9.4	-	-	14.6
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	625	5	5	650	5	5
Future Volume (vph)	625	5	5	650	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.999					0.865
Flt Protected					0.950	
Satd. Flow (prot)	4843	0	0	3343	0	1627
Flt Permitted					0.950	
Satd. Flow (perm)	4843	0	0	3343	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	7%	7%	8%	8%	1%	1%
Adj. Flow (vph)	744	6	6	774	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	750	0	0	780	6	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	625	5	5	650	5	5
Future Vol, veh/h	625	5	5	650	5	5
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	8	8	1	1
Mvmt Flow	744	6	6	774	6	6

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	751	0	1148
Stage 1	-	-	-	-	748
Stage 2	-	-	-	-	400
Critical Hdwy	-	-	5.46	-	6.27
Critical Hdwy Stg 1	-	-	-	-	6.62
Critical Hdwy Stg 2	-	-	-	-	5.82
Follow-up Hdwy	-	-	3.18	-	3.66
Pot Cap-1 Maneuver	-	-	496	-	*681
Stage 1	-	-	-	-	*355
Stage 2	-	-	-	-	*744
Platoon blocked, %	-	-	-	-	1
Mov Cap-1 Maneuver	-	-	496	-	*665
Mov Cap-2 Maneuver	-	-	-	-	*665
Stage 1	-	-	-	-	*355
Stage 2	-	-	-	-	*728

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	496	-
HCM Lane V/C Ratio	0.011	-	-	0.012	-
HCM Control Delay (s)	11.9	-	-	12.3	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	0	-

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

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗↗	↖	↑	↗	↖↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (vph)	90	110	430	180	200	60	305	1040	90	50	1900	150
Future Volume (vph)	90	110	430	180	200	60	305	1040	90	50	1900	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1759	2632	1719	1810	1538	3213	4759	1482	1719	4940	1538
Flt Permitted	0.624			0.472			0.950			0.239		
Satd. Flow (perm)	1095	1759	2596	853	1810	1516	3211	4759	1449	432	4940	1516
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	2		1	1		2	2		1	1		2
Confl. Bikes (#/hr)			1			1			1			1
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
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	8%	8%	8%	5%	5%	5%	9%	9%	9%	5%	5%	5%
Adj. Flow (vph)	97	118	324	194	215	40	328	1118	60	54	2043	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	118	324	194	215	40	328	1118	60	54	2043	100
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

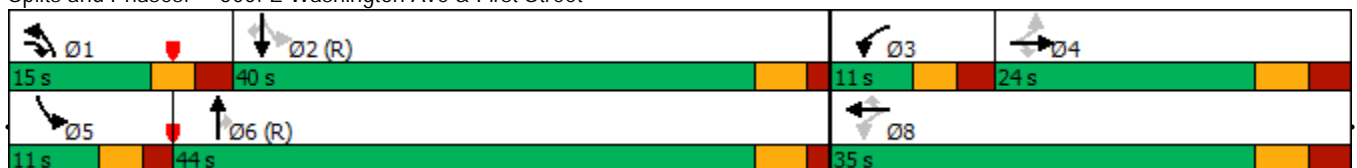


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	24.0	24.0	15.0	11.0	35.0	35.0	15.0	44.0	44.0	11.0	40.0	40.0
Total Split (%)	26.7%	26.7%	16.7%	12.2%	38.9%	38.9%	16.7%	48.9%	48.9%	12.2%	44.4%	44.4%
Maximum Green (s)	17.5	17.5	9.5	5.5	28.5	28.5	9.5	39.0	39.0	6.0	35.0	35.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.4	12.4	25.8	24.4	23.4	23.4	12.4	45.9	45.9	43.5	37.2	37.2
Actuated g/C Ratio	0.14	0.14	0.29	0.27	0.26	0.26	0.14	0.51	0.51	0.48	0.41	0.41
v/c Ratio	0.64	0.49	0.43	0.68	0.46	0.10	0.74	0.46	0.08	0.18	1.00	0.16
Control Delay	46.9	35.1	28.7	39.8	30.4	24.1	50.0	16.3	14.6	10.4	48.3	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	35.1	28.7	39.8	30.4	24.1	50.0	16.3	14.6	10.4	48.3	18.5
LOS	D	D	C	D	C	C	D	B	B	B	D	B
Approach Delay		33.4			33.9			23.6			46.0	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 7 (8%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 36.2 Intersection LOS: D
 Intersection Capacity Utilization 80.5% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Background AM Peak

Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	97	118	324	194	215	40	328	1118	60	54	2043	100
v/c Ratio	0.64	0.49	0.43	0.68	0.46	0.10	0.74	0.46	0.08	0.18	1.00	0.16
Control Delay	46.9	35.1	28.7	39.8	30.4	24.1	50.0	16.3	14.6	10.4	48.3	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	35.1	28.7	39.8	30.4	24.1	50.0	16.3	14.6	10.4	48.3	18.5
Queue Length 50th (ft)	58	70	102	90	102	17	91	152	18	11	~473	36
Queue Length 95th (ft)	m81	m96	m132	140	156	39	#181	208	43	30	#569	71
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	212	342	749	284	573	480	441	2426	738	300	2042	626
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.35	0.43	0.68	0.38	0.08	0.74	0.46	0.08	0.18	1.00	0.16

Intersection Summary

- ~ 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.

HCM 6th Signalized Intersection Summary
500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	110	430	180	200	60	305	1040	90	50	1900	150
Future Volume (veh/h)	90	110	430	180	200	60	305	1040	90	50	1900	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1826	1826	1826	1767	1767	1767	1826	1826	1826
Adj Flow Rate, veh/h	97	118	324	194	215	40	328	1118	60	54	2043	100
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
Percent Heavy Veh, %	8	8	8	5	5	5	9	9	9	5	5	5
Cap, veh/h	231	252	649	261	481	402	345	2509	768	312	2203	668
Arrive On Green	0.14	0.14	0.14	0.06	0.26	0.26	0.11	0.52	0.52	0.03	0.44	0.44
Sat Flow, veh/h	1068	1781	2610	1739	1826	1524	3264	4823	1477	1739	4985	1512
Grp Volume(v), veh/h	97	118	324	194	215	40	328	1118	60	54	2043	100
Grp Sat Flow(s),veh/h/ln	1068	1781	1305	1739	1826	1524	1632	1608	1477	1739	1662	1512
Q Serve(g_s), s	7.7	5.5	9.6	5.5	8.8	1.8	9.0	13.0	1.8	1.5	34.9	3.6
Cycle Q Clear(g_c), s	7.7	5.5	9.6	5.5	8.8	1.8	9.0	13.0	1.8	1.5	34.9	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	252	649	261	481	402	345	2509	768	312	2203	668
V/C Ratio(X)	0.42	0.47	0.50	0.74	0.45	0.10	0.95	0.45	0.08	0.17	0.93	0.15
Avail Cap(c_a), veh/h	288	346	788	261	578	483	345	2509	768	370	2203	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	35.5	29.1	34.0	27.7	25.1	40.0	13.5	10.8	13.0	23.7	15.0
Incr Delay (d2), s/veh	0.9	1.0	0.4	11.0	0.7	0.1	35.6	0.6	0.2	0.3	8.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	4.4	5.4	4.4	7.1	1.2	9.0	7.9	1.1	1.0	20.4	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	36.5	29.6	45.1	28.3	25.2	75.7	14.1	11.0	13.3	32.1	15.5
LnGrp LOS	D	D	C	D	C	C	E	B	B	B	C	B
Approach Vol, veh/h		539			449			1506			2197	
Approach Delay, s/veh		32.5			35.3			27.4			30.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	44.8	11.0	19.2	8.0	51.8		30.2				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	9.5	35.0	5.5	17.5	6.0	39.0		28.5				
Max Q Clear Time (g_c+I1), s	11.0	36.9	7.5	11.6	3.5	15.0		10.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	5.8		1.3				

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Volume (vph)	0	5	0	1435	2505	5
Future Volume (vph)	0	5	0	1435	2505	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt	0.865				0.850	
Flt Protected						
Satd. Flow (prot)	0	1627	0	4759	4940	1538
Flt Permitted						
Satd. Flow (perm)	0	1627	0	4759	4940	1538
Link Speed (mph)	25		35		35	
Link Distance (ft)	283		320		500	
Travel Time (s)	7.7		6.2		9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)	1				1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	9%	9%	5%	5%
Adj. Flow (vph)	0	5	0	1543	2694	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	5	0	1543	2694	5
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		24		24	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop		Free		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.7%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	5	0	1435	2505	5
Future Vol, veh/h	0	5	0	1435	2505	5
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	9	9	5	5
Mvmt Flow	0	5	0	1543	2694	5













Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 1349	-	0 - 0
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	- 7.12	-	- - -
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	- 3.91	-	- - -
Pot Cap-1 Maneuver	0 122	0	- - -
Stage 1	0 -	0	- - -
Stage 2	0 -	0	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	- 122	-	- - -
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	NB	SB
HCM Control Delay, s	35.9	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 122	-	-
HCM Lane V/C Ratio	- 0.044	-	-
HCM Control Delay (s)	- 35.9	-	-
HCM Lane LOS	- E	-	-
HCM 95th %tile Q(veh)	- 0.1	-	-

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	300	555	1330	330	310	810
Future Volume (vph)	300	555	1330	330	310	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	0.99	0.99		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	2787	5136	1599	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3412	2749	5136	1545	3416	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30		30	
Link Distance (ft)	310		700		500	
Travel Time (s)	8.5		15.9		11.4	
Confl. Peds. (#/hr)	2	1		13	13	
Confl. Bikes (#/hr)		1		5		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Adj. Flow (vph)	309	401	1371	211	320	835
Shared Lane Traffic (%)						
Lane Group Flow (vph)	309	401	1371	211	320	835
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24		24	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.0	24.5	44.0	58.5	14.0	65.5
Actuated g/C Ratio	0.14	0.27	0.49	0.65	0.16	0.73
v/c Ratio	0.62	0.53	0.55	0.21	0.60	0.32
Control Delay	50.4	31.8	17.8	5.7	39.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	31.8	17.8	5.7	39.9	4.9
LOS	D	C	B	A	D	A
Approach Delay	39.9		16.2			14.6
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 20.6
 Intersection LOS: C
 Intersection Capacity Utilization 58.9%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	309	401	1371	211	320	835
v/c Ratio	0.62	0.53	0.55	0.21	0.60	0.32
Control Delay	50.4	31.8	17.8	5.7	39.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	31.8	17.8	5.7	39.9	4.9
Queue Length 50th (ft)	91	98	194	36	87	75
Queue Length 95th (ft)	130	132	264	68	124	107
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	572	861	2512	1047	667	2576
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.47	0.55	0.20	0.48	0.32
Intersection Summary						

HCM 6th Signalized Intersection Summary
 100: E Johnson Street & First Street

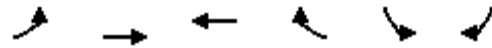
04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	300	555	1330	330	310	810
Future Volume (veh/h)	300	555	1330	330	310	810
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1885	1885	1870	1870
Adj Flow Rate, veh/h	309	401	1371	211	320	835
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	1	1	2	2
Cap, veh/h	525	757	2663	1040	413	2560
Arrive On Green	0.15	0.15	0.52	0.52	0.12	0.72
Sat Flow, veh/h	3456	2790	5316	1540	3456	3647
Grp Volume(v), veh/h	309	401	1371	211	320	835
Grp Sat Flow(s),veh/h/ln	1728	1395	1716	1540	1728	1777
Q Serve(g_s), s	7.5	11.0	15.8	4.7	8.1	7.7
Cycle Q Clear(g_c), s	7.5	11.0	15.8	4.7	8.1	7.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	525	757	2663	1040	413	2560
V/C Ratio(X)	0.59	0.53	0.51	0.20	0.77	0.33
Avail Cap(c_a), veh/h	576	798	2663	1040	672	2560
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	35.5	27.9	14.3	5.7	38.4	4.6
Incr Delay (d2), s/veh	1.3	0.6	0.7	0.4	3.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	6.7	9.9	4.3	6.4	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	28.5	15.0	6.1	41.6	4.9
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	710		1582			1155
Approach Delay, s/veh	32.1		13.8			15.1
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.3	53.1			71.3	18.7
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	10.1	17.8			9.7	13.0
Green Ext Time (p_c), s	0.7	12.7			9.0	0.7
Intersection Summary						
HCM 6th Ctrl Delay			18.0			
HCM 6th LOS			B			

Lanes, Volumes, Timings
200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↕	
Traffic Volume (vph)	1	640	845	15	10	10
Future Volume (vph)	1	640	845	15	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.997		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1863	5070	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1863	5070	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	3			3	1	2
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	1	667	880	16	10	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	668	896	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	45.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
200: First Street & Dayton Street

04/26/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔ ↑↑↑			↔	
Traffic Vol, veh/h	1	640	845	15	10	10
Future Vol, veh/h	1	640	845	15	10	10
Conflicting Peds, #/hr	3	0	0	3	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	1	667	880	16	10	10
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	899	0	-	0	1561	453
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	670	-
Critical Hdwy	5.33	-	-	-	6.065	7.115
Critical Hdwy Stg 1	-	-	-	-	6.615	-
Critical Hdwy Stg 2	-	-	-	-	5.415	-
Follow-up Hdwy	3.119	-	-	-	3.6595	3.9095
Pot Cap-1 Maneuver	*911	-	-	-	*302	*727
Stage 1	-	-	-	-	*776	-
Stage 2	-	-	-	-	*495	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*909	-	-	-	*299	*724
Mov Cap-2 Maneuver	-	-	-	-	*299	-
Stage 1	-	-	-	-	*772	-
Stage 2	-	-	-	-	*494	-
Approach	EB	WB	SB			
HCM Control Delay, s	0	0	14			
HCM LOS						B
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	*909	-	-	-	423	
HCM Lane V/C Ratio	0.001	-	-	-	0.049	
HCM Control Delay (s)	9	0	-	-	14	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	
Notes						
-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Lanes, Volumes, Timings
 300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↕↕		↔	↕↕			↕↕			↕↕			
Traffic Volume (vph)	10	640	1	1	850	15	1	1	1	10	1	10		
Future Volume (vph)	10	640	1	1	850	15	1	1	1	10	1	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
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		
Ped Bike Factor														
Frt					0.997					0.955				
Flt Protected	0.999		0.950						0.984		0.977			
Satd. Flow (prot)	0	3536	0	1770	3529	0	0	1768	0	0	1720	0		
Flt Permitted	0.999		0.950						0.984		0.977			
Satd. Flow (perm)	0	3536	0	1770	3529	0	0	1768	0	0	1720	0		
Link Speed (mph)					25					25				
Link Distance (ft)					330					190				
Travel Time (s)					9.0					5.2				
Confl. Peds. (#/hr)	1			2	2			1	1			5		
Confl. Bikes (#/hr)			1					1			1	1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%		
Adj. Flow (vph)	10	660	1	1	876	15	1	1	1	10	1	10		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	671	0	1	891	0	0	3	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		
Link Offset(ft)	0				0				0					
Crosswalk Width(ft)	16				16				16					
Two way Left Turn Lane														
Headway 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		
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	36.3%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔			↔			↔	
Traffic Vol, veh/h	10	640	1	1	850	15	1	1	1	10	1	10
Future Vol, veh/h	10	640	1	1	850	15	1	1	1	10	1	10
Conflicting Peds, #/hr	1	0	2	2	0	1	1	0	5	5	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	10	660	1	1	876	15	1	1	1	10	1	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	892	0	0	663	0	0	1125	1577	338	1243	1570	448
Stage 1	-	-	-	-	-	-	683	683	-	887	887	-
Stage 2	-	-	-	-	-	-	442	894	-	356	683	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	*1066	-	-	922	-	-	*531	*199	661	*397	*203	*714
Stage 1	-	-	-	-	-	-	*408	*450	-	*674	*590	-
Stage 2	-	-	-	-	-	-	*674	*590	-	*637	*450	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	*1065	-	-	920	-	-	*513	*196	657	*388	*199	*713
Mov Cap-2 Maneuver	-	-	-	-	-	-	*513	*196	-	*388	*199	-
Stage 1	-	-	-	-	-	-	*401	*442	-	*663	*589	-
Stage 2	-	-	-	-	-	-	*661	*589	-	*622	*442	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	15.4	13
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	350	*1065	-	-	920	-	-	469
HCM Lane V/C Ratio	0.009	0.01	-	-	0.001	-	-	0.046
HCM Control Delay (s)	15.4	8.4	0.1	-	8.9	-	-	13
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	625	25	45	835	30	45
Future Volume (vph)	625	25	45	835	30	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.865
Flt Protected				0.997	0.950	
Satd. Flow (prot)	5055	0	0	3529	0	1627
Flt Permitted				0.997	0.950	
Satd. Flow (perm)	5055	0	0	3529	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)		2	2		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	644	26	46	861	31	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	670	0	0	907	31	46
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization Err%	ICU Level of Service H					
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	625	25	45	835	30	45
Future Vol, veh/h	625	25	45	835	30	45
Conflicting Peds, #/hr	0	2	2	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	644	26	46	861	31	46

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	672	0	1183 338
Stage 1	-	-	-	-	659 -
Stage 2	-	-	-	-	524 -
Critical Hdwy	-	-	5.34	-	6.27 7.12
Critical Hdwy Stg 1	-	-	-	-	6.62 -
Critical Hdwy Stg 2	-	-	-	-	5.82 -
Follow-up Hdwy	-	-	3.12	-	3.66 3.91
Pot Cap-1 Maneuver	-	-	562	-	*678 564
Stage 1	-	-	-	-	*402 -
Stage 2	-	-	-	-	*679 -
Platoon blocked, %	-	-	-	-	1
Mov Cap-1 Maneuver	-	-	561	-	*570 562
Mov Cap-2 Maneuver	-	-	-	-	*570 -
Stage 1	-	-	-	-	*401 -
Stage 2	-	-	-	-	*572 -

























Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	562	-	-	561	-
HCM Lane V/C Ratio	0.083	-	-	0.083	-
HCM Control Delay (s)	12	-	-	12	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	-

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

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	235	240	185	255	115	465	2125	180	75	1175	160
Future Volume (vph)	195	235	240	185	255	115	465	2125	180	75	1175	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	0.99		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	1787	1881	1599	3433	5085	1583	1770	5085	1583
Flt Permitted	0.595			0.276			0.950			0.131		
Satd. Flow (perm)	1103	1863	2743	518	1881	1572	3426	5085	1549	244	5085	1555
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	4		4	4		4	5		1	1		5
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	203	245	175	193	266	74	484	2214	116	78	1224	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	245	175	193	266	74	484	2214	116	78	1224	103
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



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	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	21.0	21.0	27.0	11.0	32.0	32.0	27.0	48.0	48.0	10.0	31.0	31.0
Total Split (%)	23.3%	23.3%	30.0%	12.2%	35.6%	35.6%	30.0%	53.3%	53.3%	11.1%	34.4%	34.4%
Maximum Green (s)	14.5	14.5	21.5	5.5	25.5	25.5	21.5	43.0	43.0	5.0	26.0	26.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	32.4	26.5	25.5	25.5	16.9	45.0	45.0	35.6	30.6	30.6
Actuated g/C Ratio	0.16	0.16	0.36	0.29	0.28	0.28	0.19	0.50	0.50	0.40	0.34	0.34
v/c Ratio	1.15	0.82	0.18	0.84	0.50	0.17	0.75	0.87	0.15	0.43	0.71	0.20
Control Delay	148.3	57.5	22.4	58.7	30.8	25.6	41.9	25.6	13.7	20.7	29.3	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.3	57.5	22.4	58.7	30.8	25.6	41.9	25.6	13.7	20.7	29.3	23.6
LOS	F	E	C	E	C	C	D	C	B	C	C	C
Approach Delay		77.2			40.2			27.9			28.4	
Approach LOS		E			D			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 5 (6%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 35.0 Intersection LOS: C
 Intersection Capacity Utilization 88.6% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Background PM Peak

Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	203	245	175	193	266	74	484	2214	116	78	1224	103
v/c Ratio	1.15	0.82	0.18	0.84	0.50	0.17	0.75	0.87	0.15	0.43	0.71	0.20
Control Delay	148.3	57.5	22.4	58.7	30.8	25.6	41.9	25.6	13.7	20.7	29.3	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.3	57.5	22.4	58.7	30.8	25.6	41.9	25.6	13.7	20.7	29.3	23.6
Queue Length 50th (ft)	~140	144	46	86	126	32	135	409	36	18	219	41
Queue Length 95th (ft)	#279	#265	73	#197	201	66	176	#489	67	42	292	86
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	177	300	1138	230	532	445	820	2542	774	181	1726	527
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.82	0.15	0.84	0.50	0.17	0.59	0.87	0.15	0.43	0.71	0.20

Intersection Summary

~ 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.

HCM 6th Signalized Intersection Summary
 500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗↖	↖	↑	↗	↖↗	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	195	235	240	185	255	115	465	2125	180	75	1175	160
Future Volume (veh/h)	195	235	240	185	255	115	465	2125	180	75	1175	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	245	175	193	266	74	484	2214	116	78	1224	103
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	2	2	2
Cap, veh/h	247	301	901	223	534	445	571	2506	766	171	1851	559
Arrive On Green	0.16	0.16	0.16	0.06	0.28	0.28	0.17	0.49	0.49	0.04	0.36	0.36
Sat Flow, veh/h	1036	1870	2732	1795	1885	1571	3456	5106	1561	1781	5106	1541
Grp Volume(v), veh/h	203	245	175	193	266	74	484	2214	116	78	1224	103
Grp Sat Flow(s),veh/h/ln	1036	1870	1366	1795	1885	1571	1728	1702	1561	1781	1702	1541
Q Serve(g_s), s	14.5	11.4	4.1	5.5	10.6	3.2	12.2	35.1	3.7	2.5	18.1	4.1
Cycle Q Clear(g_c), s	14.5	11.4	4.1	5.5	10.6	3.2	12.2	35.1	3.7	2.5	18.1	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	301	901	223	534	445	571	2506	766	171	1851	559
V/C Ratio(X)	0.82	0.81	0.19	0.86	0.50	0.17	0.85	0.88	0.15	0.46	0.66	0.18
Avail Cap(c_a), veh/h	247	301	901	223	534	445	826	2506	766	195	1851	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	36.4	21.8	33.8	26.9	24.3	36.5	20.6	12.6	21.7	24.1	19.6
Incr Delay (d2), s/veh	19.1	15.1	0.1	27.7	0.7	0.2	4.0	5.0	0.4	1.9	1.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.8	10.6	2.4	5.9	8.4	2.2	9.1	19.8	2.4	1.9	11.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	51.5	21.9	61.5	27.6	24.4	40.4	25.6	13.0	23.5	25.9	20.3
LnGrp LOS	E	D	C	E	C	C	D	C	B	C	C	C
Approach Vol, veh/h		623			533			2814			1405	
Approach Delay, s/veh		45.4			39.4			27.6			25.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	20.4	37.6	11.0	21.0	8.8	49.2		32.0				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	21.5	26.0	5.5	14.5	5.0	43.0		25.5				
Max Q Clear Time (g_c+I1), s	14.2	20.1	7.5	16.5	4.5	37.1		12.6				
Green Ext Time (p_c), s	0.6	3.9	0.0	0.0	0.0	4.8		1.5				

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Volume (vph)	0	20	0	2770	1585	15
Future Volume (vph)	0	20	0	2770	1585	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1627	0	5085	5085	1583
Flt Permitted						
Satd. Flow (perm)	0	1627	0	5085	5085	1583
Link Speed (mph)	25			35	35	
Link Distance (ft)	283			320	500	
Travel Time (s)	7.7			6.2	9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Adj. Flow (vph)	0	21	0	2885	1651	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	21	0	2885	1651	16
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	63.8%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	20	0	2770	1585	15
Future Vol, veh/h	0	20	0	2770	1585	15
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	0	21	0	2885	1651	16













Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	828	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.12	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.91	-
Pot Cap-1 Maneuver	0	271	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	270	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 270	-	-
HCM Lane V/C Ratio	- 0.077	-	-
HCM Control Delay (s)	- 19.4	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.2	-	-

Lanes, Volumes, Timings
100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	310	360	785	170	455	1000
Future Volume (vph)	310	360	785	170	455	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	1.00	0.99		0.97	0.99	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3273	2656	4940	1538	3335	3438
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3263	2621	4940	1487	3302	3438
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	310		700			500
Travel Time (s)	8.5		15.9			11.4
Confl. Peds. (#/hr)	1	1		14	14	
Confl. Bikes (#/hr)		1		3		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%
Adj. Flow (vph)	369	300	935	125	542	1190
Shared Lane Traffic (%)						
Lane Group Flow (vph)	369	300	935	125	542	1190
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.9	28.6	39.9	55.3	17.2	64.6
Actuated g/C Ratio	0.15	0.32	0.44	0.61	0.19	0.72
v/c Ratio	0.73	0.36	0.43	0.14	0.85	0.48
Control Delay	48.4	28.6	18.3	6.0	49.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	28.6	18.3	6.0	49.4	6.4
LOS	D	C	B	A	D	A
Approach Delay	39.5		16.8			19.9
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 22.8
 Intersection LOS: C
 Intersection Capacity Utilization 52.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	369	300	935	125	542	1190
v/c Ratio	0.73	0.36	0.43	0.14	0.85	0.48
Control Delay	48.4	28.6	18.3	6.0	49.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	28.6	18.3	6.0	49.4	6.4
Queue Length 50th (ft)	95	68	133	23	154	136
Queue Length 95th (ft)	m134	m92	154	39	#199	157
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	545	853	2189	940	652	2466
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	0.68	0.35	0.43	0.13	0.83	0.48

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.

HCM 6th Signalized Intersection Summary

100: E Johnson Street & First Street

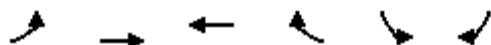
04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	310	360	785	170	455	1000
Future Volume (veh/h)	310	360	785	170	455	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1796	1796	1826	1826	1826	1826
Adj Flow Rate, veh/h	369	300	935	125	542	1190
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	5	5	5	5
Cap, veh/h	466	866	2322	911	616	2539
Arrive On Green	0.14	0.14	0.47	0.47	0.18	0.73
Sat Flow, veh/h	3319	2679	5149	1490	3374	3561
Grp Volume(v), veh/h	369	300	935	125	542	1190
Grp Sat Flow(s),veh/h/ln	1659	1340	1662	1490	1687	1735
Q Serve(g_s), s	9.7	7.7	11.1	3.2	14.1	12.6
Cycle Q Clear(g_c), s	9.7	7.7	11.1	3.2	14.1	12.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	466	866	2322	911	616	2539
V/C Ratio(X)	0.79	0.35	0.40	0.14	0.88	0.47
Avail Cap(c_a), veh/h	553	936	2322	911	656	2539
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	37.4	23.2	15.8	7.6	35.8	4.9
Incr Delay (d2), s/veh	6.5	0.2	0.5	0.3	12.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	4.4	7.4	2.7	11.0	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.0	23.5	16.3	7.9	48.4	5.6
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	669		1060			1732
Approach Delay, s/veh	34.8		15.3			19.0
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.9	48.4			72.4	17.6
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	16.1	13.1			14.6	11.7
Green Ext Time (p_c), s	0.4	9.3			15.1	1.0
Intersection Summary						
HCM 6th Ctrl Delay			20.9			
HCM 6th LOS			C			

Lanes, Volumes, Timings
200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↕	
Traffic Volume (vph)	1	635	670	10	1	1
Future Volume (vph)	1	635	670	10	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1759	4838	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1759	4838	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	8%	8%	7%	7%	1%	1%
Adj. Flow (vph)	1	784	827	12	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	785	839	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕ ↑↑↑			↕	
Traffic Vol, veh/h	1	635	670	10	1	1
Future Vol, veh/h	1	635	670	10	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	8	8	7	7	1	1
Mvmt Flow	1	784	827	12	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	840	0	0 1621 422
Stage 1	-	-	- 834 -
Stage 2	-	-	- 787 -
Critical Hdwy	5.42	-	- 6.065 7.115
Critical Hdwy Stg 1	-	-	- 6.615 -
Critical Hdwy Stg 2	-	-	- 5.415 -
Follow-up Hdwy	3.176	-	- 3.6595 3.9095
Pot Cap-1 Maneuver	880	-	- 238 *757
Stage 1	-	-	- 761 -
Stage 2	-	-	- 437 -
Platoon blocked, %	1	-	- 1 1
Mov Cap-1 Maneuver	879	-	- 237 *756
Mov Cap-2 Maneuver	-	-	- 237 -
Stage 1	-	-	- 758 -
Stage 2	-	-	- 437 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	361
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	9.1	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

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

Lanes, Volumes, Timings
 300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↕↕		↖	↕↕			↕			↕			
Traffic Volume (vph)	10	625	1	15	640	10	30	1	20	10	1	10		
Future Volume (vph)	10	625	1	15	640	10	30	1	20	10	1	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
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		
Ped Bike Factor														
Frt					0.998					0.947				
Flt Protected	0.999				0.950			0.971				0.977		
Satd. Flow (prot)	0	3370	0	1671	3336	0	0	1730	0	0	1718	0		
Flt Permitted	0.999				0.950			0.971				0.977		
Satd. Flow (perm)	0	3370	0	1671	3336	0	0	1730	0	0	1718	0		
Link Speed (mph)					25					25				
Link Distance (ft)					330					190				
Travel Time (s)					9.0					5.2				
Confl. Peds. (#/hr)	1			1	1			1	1			1		
Confl. Bikes (#/hr)			1					1			1	1		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84		
Heavy Vehicles (%)	7%	7%	7%	8%	8%	8%	1%	1%	1%	1%	1%	1%		
Adj. Flow (vph)	12	744	1	18	762	12	36	1	24	12	1	12		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	757	0	18	774	0	0	61	0	0	25	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				
Link Offset(ft)					0					0				
Crosswalk Width(ft)					16					16				
Two way Left Turn Lane														
Headway 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		
Turning Speed (mph)	15		9		15		9		15		9			
Sign Control	Free				Free				Stop					

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.5%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔			↔			↔	
Traffic Vol, veh/h	10	625	1	15	640	10	30	1	20	10	1	10
Future Vol, veh/h	10	625	1	15	640	10	30	1	20	10	1	10
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	7	7	7	8	8	8	1	1	1	1	1	1
Mvmt Flow	12	744	1	18	762	12	36	1	24	12	1	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	775	0	0	746	0	0	1189	1581	375	1203	1575	389
Stage 1	-	-	-	-	-	-	770	770	-	805	805	-
Stage 2	-	-	-	-	-	-	419	811	-	398	770	-
Critical Hdwy	4.24	-	-	4.26	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.27	-	-	2.28	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	1139	-	-	820	-	-	*289	155	625	280	157	*822
Stage 1	-	-	-	-	-	-	*362	411	-	679	616	-
Stage 2	-	-	-	-	-	-	*775	611	-	602	411	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1138	-	-	819	-	-	*274	149	624	259	150	*821
Mov Cap-2 Maneuver	-	-	-	-	-	-	*274	149	-	259	150	-
Stage 1	-	-	-	-	-	-	*355	403	-	666	601	-
Stage 2	-	-	-	-	-	-	*745	597	-	566	403	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			17.7			15.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	1138	-	-	819	-	-	365
HCM Lane V/C Ratio	0.176	0.01	-	-	0.022	-	-	0.068
HCM Control Delay (s)	17.7	8.2	0.1	-	9.5	-	-	15.6
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.2

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	645	10	0	665	0	15
Future Volume (vph)	645	10	0	665	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	4838	0	0	3343	0	1627
Flt Permitted						
Satd. Flow (perm)	4838	0	0	3343	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	7%	7%	8%	8%	1%	1%
Adj. Flow (vph)	768	12	0	792	0	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	780	0	0	792	0	18
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
400: East DW & First Street

04/26/2021

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	645	10	0	665	0	15
Future Vol, veh/h	645	10	0	665	0	15
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	8	8	1	1
Mvmt Flow	768	12	0	792	0	18

























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	392
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.91
Pot Cap-1 Maneuver	-	-	0	-	521
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	520
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	520	-	-	-
HCM Lane V/C Ratio	0.034	-	-	-
HCM Control Delay (s)	12.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	115	435	180	200	60	315	1040	90	50	1905	150
Future Volume (vph)	110	115	435	180	200	60	315	1040	90	50	1905	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1759	2632	1719	1810	1538	3213	4759	1482	1719	4940	1538
Flt Permitted	0.624			0.482			0.950			0.236		
Satd. Flow (perm)	1095	1759	2596	872	1810	1516	3211	4759	1449	427	4940	1516
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	2		1	1		2	2		1	1		2
Confl. Bikes (#/hr)			1			1			1			1
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
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	8%	8%	8%	5%	5%	5%	9%	9%	9%	5%	5%	5%
Adj. Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

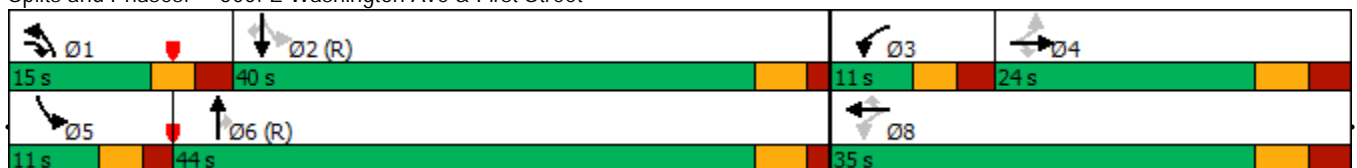


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	24.0	24.0	15.0	11.0	35.0	35.0	15.0	44.0	44.0	11.0	40.0	40.0
Total Split (%)	26.7%	26.7%	16.7%	12.2%	38.9%	38.9%	16.7%	48.9%	48.9%	12.2%	44.4%	44.4%
Maximum Green (s)	17.5	17.5	9.5	5.5	28.5	28.5	9.5	39.0	39.0	6.0	35.0	35.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.6	13.6	26.7	25.6	24.6	24.6	12.1	44.9	44.9	42.3	36.3	36.3
Actuated g/C Ratio	0.15	0.15	0.30	0.28	0.27	0.27	0.13	0.50	0.50	0.47	0.40	0.40
v/c Ratio	0.72	0.47	0.42	0.65	0.43	0.10	0.78	0.47	0.08	0.19	1.03	0.16
Control Delay	51.5	34.5	28.1	36.7	29.1	23.3	53.6	16.9	15.0	10.9	56.3	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	34.5	28.1	36.7	29.1	23.3	53.6	16.9	15.0	10.9	56.3	18.8
LOS	D	C	C	D	C	C	D	B	B	B	E	B
Approach Delay		34.3			31.9			25.1			53.4	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 7 (8%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 40.0 Intersection LOS: D
 Intersection Capacity Utilization 82.0% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Build AM Peak

Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
v/c Ratio	0.72	0.47	0.42	0.65	0.43	0.10	0.78	0.47	0.08	0.19	1.03	0.16
Control Delay	51.5	34.5	28.1	36.7	29.1	23.3	53.6	16.9	15.0	10.9	56.3	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	34.5	28.1	36.7	29.1	23.3	53.6	16.9	15.0	10.9	56.3	18.8
Queue Length 50th (ft)	71	73	102	88	99	17	96	157	19	12	~476	36
Queue Length 95th (ft)	m99	m102	m132	140	156	39	#190	208	43	30	#571	71
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	212	342	776	299	573	480	432	2374	722	290	1990	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.36	0.42	0.65	0.38	0.08	0.78	0.47	0.08	0.19	1.03	0.16

Intersection Summary

- ~ 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.

HCM 6th Signalized Intersection Summary
 500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗↘	↘	↑	↗	↗↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	110	115	435	180	200	60	315	1040	90	50	1905	150
Future Volume (veh/h)	110	115	435	180	200	60	315	1040	90	50	1905	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1826	1826	1826	1767	1767	1767	1826	1826	1826
Adj Flow Rate, veh/h	118	124	327	194	215	40	339	1118	60	54	2048	100
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
Percent Heavy Veh, %	8	8	8	5	5	5	9	9	9	5	5	5
Cap, veh/h	233	255	654	258	484	404	345	2501	766	311	2195	666
Arrive On Green	0.14	0.14	0.14	0.06	0.27	0.27	0.11	0.52	0.52	0.03	0.44	0.44
Sat Flow, veh/h	1068	1781	2610	1739	1826	1524	3264	4823	1477	1739	4985	1512
Grp Volume(v), veh/h	118	124	327	194	215	40	339	1118	60	54	2048	100
Grp Sat Flow(s),veh/h/ln	1068	1781	1305	1739	1826	1524	1632	1608	1477	1739	1662	1512
Q Serve(g_s), s	9.6	5.8	9.7	5.5	8.8	1.8	9.3	13.1	1.8	1.5	35.1	3.6
Cycle Q Clear(g_c), s	9.6	5.8	9.7	5.5	8.8	1.8	9.3	13.1	1.8	1.5	35.1	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	255	654	258	484	404	345	2501	766	311	2195	666
V/C Ratio(X)	0.51	0.49	0.50	0.75	0.44	0.10	0.98	0.45	0.08	0.17	0.93	0.15
Avail Cap(c_a), veh/h	288	346	788	258	578	483	345	2501	766	369	2195	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	35.5	29.1	34.0	27.5	25.0	40.2	13.6	10.9	13.1	23.9	15.1
Incr Delay (d2), s/veh	1.3	1.1	0.4	11.6	0.6	0.1	43.9	0.6	0.2	0.3	8.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	4.6	5.5	4.4	7.0	1.2	9.7	7.9	1.1	1.0	20.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	36.6	29.5	45.6	28.2	25.1	84.1	14.2	11.1	13.4	32.7	15.6
LnGrp LOS	D	D	C	D	C	C	F	B	B	B	C	B
Approach Vol, veh/h		569			449			1517			2202	
Approach Delay, s/veh		32.9			35.4			29.7			31.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	44.6	11.0	19.4	8.0	51.7		30.4				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	9.5	35.0	5.5	17.5	6.0	39.0		28.5				
Max Q Clear Time (g_c+I1), s	11.3	37.1	7.5	11.7	3.5	15.1		10.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	5.8		1.3				

Intersection Summary

HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↘
Traffic Volume (vph)	0	15	0	1445	2510	10
Future Volume (vph)	0	15	0	1445	2510	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt	0.865		0.850			
Flt Protected						
Satd. Flow (prot)	0	1627	0	4759	4940	1538
Flt Permitted						
Satd. Flow (perm)	0	1627	0	4759	4940	1538
Link Speed (mph)	25			35	35	
Link Distance (ft)	283			320	500	
Travel Time (s)	7.7			6.2	9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	9%	9%	5%	5%
Adj. Flow (vph)	0	16	0	1554	2699	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	1554	2699	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.8%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	15	0	1445	2510	10
Future Vol, veh/h	0	15	0	1445	2510	10
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	9	9	5	5
Mvmt Flow	0	16	0	1554	2699	11



















Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	1352	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.12	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.91	-	-	-
Pot Cap-1 Maneuver	0	121	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	121	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	39.3	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 121	-	-
HCM Lane V/C Ratio	- 0.133	-	-
HCM Control Delay (s)	- 39.3	-	-
HCM Lane LOS	- E	-	-
HCM 95th %tile Q(veh)	- 0.4	-	-

Lanes, Volumes, Timings
100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 	 	  		 	 
Traffic Volume (vph)	300	555	1330	340	315	810
Future Volume (vph)	300	555	1330	340	315	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	0.99	0.99		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	2787	5136	1599	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3412	2749	5136	1545	3416	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	310		700			500
Travel Time (s)	8.5		15.9			11.4
Confl. Peds. (#/hr)	2	1		13	13	
Confl. Bikes (#/hr)		1		5		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Adj. Flow (vph)	309	401	1371	217	325	835
Shared Lane Traffic (%)						
Lane Group Flow (vph)	309	401	1371	217	325	835
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.0	24.6	43.9	58.4	14.1	65.5
Actuated g/C Ratio	0.14	0.27	0.49	0.65	0.16	0.73
v/c Ratio	0.62	0.53	0.55	0.21	0.61	0.32
Control Delay	50.3	32.2	17.9	5.8	40.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	32.2	17.9	5.8	40.0	4.9
LOS	D	C	B	A	D	A
Approach Delay	40.1		16.2			14.7
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 20.6
 Intersection LOS: C
 Intersection Capacity Utilization 59.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	309	401	1371	217	325	835
v/c Ratio	0.62	0.53	0.55	0.21	0.61	0.32
Control Delay	50.3	32.2	17.9	5.8	40.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	32.2	17.9	5.8	40.0	4.9
Queue Length 50th (ft)	90	99	194	37	89	75
Queue Length 95th (ft)	130	134	264	70	127	107
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	572	861	2507	1046	667	2576
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.47	0.55	0.21	0.49	0.32

Intersection Summary

HCM 6th Signalized Intersection Summary
 100: E Johnson Street & First Street

04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	300	555	1330	340	315	810
Future Volume (veh/h)	300	555	1330	340	315	810
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1885	1885	1870	1870
Adj Flow Rate, veh/h	309	401	1371	217	325	835
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	1	1	2	2
Cap, veh/h	525	761	2656	1037	418	2560
Arrive On Green	0.15	0.15	0.52	0.52	0.12	0.72
Sat Flow, veh/h	3456	2790	5316	1540	3456	3647
Grp Volume(v), veh/h	309	401	1371	217	325	835
Grp Sat Flow(s),veh/h/ln	1728	1395	1716	1540	1728	1777
Q Serve(g_s), s	7.5	11.0	15.8	4.9	8.2	7.7
Cycle Q Clear(g_c), s	7.5	11.0	15.8	4.9	8.2	7.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	525	761	2656	1037	418	2560
V/C Ratio(X)	0.59	0.53	0.52	0.21	0.78	0.33
Avail Cap(c_a), veh/h	576	803	2656	1037	672	2560
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	35.6	27.8	14.4	5.8	38.4	4.6
Incr Delay (d2), s/veh	1.3	0.6	0.7	0.5	3.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	6.6	9.9	4.4	6.5	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	28.4	15.1	6.2	41.5	4.9
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	710		1588			1160
Approach Delay, s/veh	32.1		13.9			15.2
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.4	52.9			71.3	18.7
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	10.2	17.8			9.7	13.0
Green Ext Time (p_c), s	0.7	12.7			9.0	0.7
Intersection Summary						
HCM 6th Ctrl Delay			18.1			
HCM 6th LOS			B			

Lanes, Volumes, Timings
200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↕	
Traffic Volume (vph)	1	655	845	15	10	10
Future Volume (vph)	1	655	845	15	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.997		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1863	5070	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1863	5070	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	3			3	1	2
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	1	682	880	16	10	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	683	896	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.9%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕ ↕ ↕	↕ ↕ ↕		↕	
Traffic Vol, veh/h	1	655	845	15	10	10
Future Vol, veh/h	1	655	845	15	10	10
Conflicting Peds, #/hr	3	0	0	3	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	1	682	880	16	10	10

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	899	0	0 1576 453
Stage 1	-	-	- 891 -
Stage 2	-	-	- 685 -
Critical Hdwy	5.33	-	- 6.065 7.115
Critical Hdwy Stg 1	-	-	- 6.615 -
Critical Hdwy Stg 2	-	-	- 5.415 -
Follow-up Hdwy	3.119	-	- 3.6595 3.9095
Pot Cap-1 Maneuver	*911	-	- *296 *727
Stage 1	-	-	- *776 -
Stage 2	-	-	- *487 -
Platoon blocked, %	1	-	- 1 1
Mov Cap-1 Maneuver	*909	-	- *293 *724
Mov Cap-2 Maneuver	-	-	- *293 -
Stage 1	-	-	- *772 -
Stage 2	-	-	- *486 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	* 909	-	-	-	417
HCM Lane V/C Ratio	0.001	-	-	-	0.05
HCM Control Delay (s)	9	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

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

Lanes, Volumes, Timings
300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕			↕	
Traffic Volume (vph)	10	650	5	35	820	15	30	1	20	10	1	10
Future Volume (vph)	10	650	5	35	820	15	30	1	20	10	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Ped Bike Factor												
Frt		0.999			0.997			0.947			0.936	
Flt Protected		0.999		0.950				0.972			0.977	
Satd. Flow (prot)	0	3532	0	1770	3529	0	0	1732	0	0	1720	0
Flt Permitted		0.999		0.950				0.972			0.977	
Satd. Flow (perm)	0	3532	0	1770	3529	0	0	1732	0	0	1720	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		330			190			400			350	
Travel Time (s)		9.0			5.2			10.9			9.5	
Confl. Peds. (#/hr)	1		2	2		1	1		5	5		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	10	670	5	36	845	15	31	1	21	10	1	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	685	0	36	860	0	0	53	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												
Headway 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
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	41.4%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔			↔			↔	
Traffic Vol, veh/h	10	650	5	35	820	15	30	1	20	10	1	10
Future Vol, veh/h	10	650	5	35	820	15	30	1	20	10	1	10
Conflicting Peds, #/hr	1	0	2	2	0	1	1	0	5	5	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	10	670	5	36	845	15	31	1	21	10	1	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	861	0	0	677	0	0	1191	1628	345	1287	1623	432
Stage 1	-	-	-	-	-	-	695	695	-	926	926	-
Stage 2	-	-	-	-	-	-	496	933	-	361	697	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	*1119	-	-	911	-	-	*382	165	654	*305	*167	*750
Stage 1	-	-	-	-	-	-	*401	444	-	*707	*620	-
Stage 2	-	-	-	-	-	-	*707	616	-	*633	*443	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	*1118	-	-	909	-	-	*359	156	650	*280	*157	*749
Mov Cap-2 Maneuver	-	-	-	-	-	-	*359	156	-	*280	*157	-
Stage 1	-	-	-	-	-	-	*395	437	-	*697	*594	-
Stage 2	-	-	-	-	-	-	*668	590	-	*600	*436	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.4			14.7			15.1		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	422	* 1118	-	-	909	-	-	379
HCM Lane V/C Ratio	0.125	0.009	-	-	0.04	-	-	0.057
HCM Control Delay (s)	14.7	8.2	0.1	-	9.1	-	-	15.1
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.2

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	645	35	0	870	0	15
Future Volume (vph)	645	35	0	870	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992			0.865		
Flt Protected						
Satd. Flow (prot)	5045	0	0	3539	0	1627
Flt Permitted						
Satd. Flow (perm)	5045	0	0	3539	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)	2		2	1		1
Confl. Bikes (#/hr)	1					1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	665	36	0	897	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	701	0	0	897	0	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.4%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
400: East DW & First Street

04/26/2021

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	645	35	0	870	0	15
Future Vol, veh/h	645	35	0	870	0	15
Conflicting Peds, #/hr	0	2	2	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	665	36	0	897	0	15

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	354
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.91
Pot Cap-1 Maneuver	-	0	-	0	551
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	549	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-
HCM Control Delay (s)	11.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	235	230	190	250	115	475	2125	180	75	1185	145
Future Volume (vph)	195	235	230	190	250	115	475	2125	180	75	1185	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	0.99		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	1787	1881	1599	3433	5085	1583	1770	5085	1583
Flt Permitted	0.599			0.276			0.950			0.132		
Satd. Flow (perm)	1110	1863	2743	518	1881	1572	3427	5085	1549	246	5085	1555
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	4		4	4		4	5		1	1		5
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



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	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	21.0	21.0	27.0	11.0	32.0	32.0	27.0	48.0	48.0	10.0	31.0	31.0
Total Split (%)	23.3%	23.3%	30.0%	12.2%	35.6%	35.6%	30.0%	53.3%	53.3%	11.1%	34.4%	34.4%
Maximum Green (s)	14.5	14.5	21.5	5.5	25.5	25.5	21.5	43.0	43.0	5.0	26.0	26.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	32.7	26.5	25.5	25.5	17.2	45.0	45.0	35.3	30.3	30.3
Actuated g/C Ratio	0.16	0.16	0.36	0.29	0.28	0.28	0.19	0.50	0.50	0.39	0.34	0.34
v/c Ratio	1.14	0.82	0.17	0.86	0.49	0.17	0.76	0.87	0.15	0.43	0.72	0.18
Control Delay	145.8	57.4	22.1	62.0	30.6	25.6	42.0	25.6	13.7	20.7	29.8	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	57.4	22.1	62.0	30.6	25.6	42.0	25.6	13.7	20.7	29.8	23.6
LOS	F	E	C	E	C	C	D	C	B	C	C	C
Approach Delay		76.9			41.6			27.9			28.9	
Approach LOS		E			D			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 5 (6%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 35.1
 Intersection LOS: D
 Intersection Capacity Utilization 88.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Build PM Peak

Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
v/c Ratio	1.14	0.82	0.17	0.86	0.49	0.17	0.76	0.87	0.15	0.43	0.72	0.18
Control Delay	145.8	57.4	22.1	62.0	30.6	25.6	42.0	25.6	13.7	20.7	29.8	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	57.4	22.1	62.0	30.6	25.6	42.0	25.6	13.7	20.7	29.8	23.6
Queue Length 50th (ft)	~140	144	44	89	123	32	138	409	36	18	223	37
Queue Length 95th (ft)	#279	#266	71	#205	197	66	180	#489	67	42	295	80
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	178	300	1138	230	532	445	820	2542	774	181	1713	523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.82	0.15	0.86	0.49	0.17	0.60	0.87	0.15	0.43	0.72	0.18

Intersection Summary

~ 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.

HCM 6th Signalized Intersection Summary
 500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗↖	↖	↑	↗	↗↖	↑↑↑	↗	↖	↑↑↑	↗
Traffic Volume (veh/h)	195	235	230	190	250	115	475	2125	180	75	1185	145
Future Volume (veh/h)	195	235	230	190	250	115	475	2125	180	75	1185	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	245	168	198	260	74	495	2214	116	78	1234	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	2	2	2
Cap, veh/h	248	301	910	224	534	445	582	2506	766	172	1835	554
Arrive On Green	0.16	0.16	0.16	0.06	0.28	0.28	0.17	0.49	0.49	0.04	0.36	0.36
Sat Flow, veh/h	1041	1870	2732	1795	1885	1571	3456	5106	1561	1781	5106	1541
Grp Volume(v), veh/h	203	245	168	198	260	74	495	2214	116	78	1234	94
Grp Sat Flow(s),veh/h/ln	1041	1870	1366	1795	1885	1571	1728	1702	1561	1781	1702	1541
Q Serve(g_s), s	14.5	11.4	4.0	5.5	10.3	3.2	12.5	35.1	3.7	2.5	18.4	3.7
Cycle Q Clear(g_c), s	14.5	11.4	4.0	5.5	10.3	3.2	12.5	35.1	3.7	2.5	18.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	301	910	224	534	445	582	2506	766	172	1835	554
V/C Ratio(X)	0.82	0.81	0.18	0.89	0.49	0.17	0.85	0.88	0.15	0.45	0.67	0.17
Avail Cap(c_a), veh/h	248	301	910	224	534	445	826	2506	766	195	1835	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	36.4	21.6	34.1	26.8	24.3	36.3	20.6	12.6	21.7	24.4	19.7
Incr Delay (d2), s/veh	18.7	15.1	0.1	31.6	0.7	0.2	4.4	5.0	0.4	1.9	2.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.8	10.6	2.3	6.6	8.2	2.2	9.3	19.8	2.4	1.9	11.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	51.5	21.6	65.7	27.5	24.4	40.7	25.6	13.0	23.6	26.3	20.3
LnGrp LOS	E	D	C	E	C	C	D	C	B	C	C	C
Approach Vol, veh/h		616			532			2825			1406	
Approach Delay, s/veh		45.4			41.3			27.7			25.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	37.3	11.0	21.0	8.8	49.2		32.0				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	21.5	26.0	5.5	14.5	5.0	43.0		25.5				
Max Q Clear Time (g_c+I1), s	14.5	20.4	7.5	16.5	4.5	37.1		12.3				
Green Ext Time (p_c), s	0.6	3.7	0.0	0.0	0.0	4.8		1.5				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↘
Traffic Volume (vph)	0	15	0	2780	1575	30
Future Volume (vph)	0	15	0	2780	1575	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1627	0	5085	5085	1583
Flt Permitted						
Satd. Flow (perm)	0	1627	0	5085	5085	1583
Link Speed (mph)	25			35	35	
Link Distance (ft)	283			320	500	
Travel Time (s)	7.7			6.2	9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Adj. Flow (vph)	0	16	0	2896	1641	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	2896	1641	31
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	64.0%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	15	0	2780	1575	30
Future Vol, veh/h	0	15	0	2780	1575	30
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	0	16	0	2896	1641	31



















Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	823	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.12	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.91	-
Pot Cap-1 Maneuver	0	274	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	273	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	273	-	-
HCM Lane V/C Ratio	-	0.057	-	-
HCM Control Delay (s)	-	19	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 	 	  		 	 
Traffic Volume (vph)	310	360	785	170	455	1000
Future Volume (vph)	310	360	785	170	455	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	1.00	0.99		0.97	0.99	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3273	2656	4940	1538	3335	3438
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3263	2621	4940	1487	3302	3438
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30			30
Link Distance (ft)	310		700			500
Travel Time (s)	8.5		15.9			11.4
Confl. Peds. (#/hr)	1	1		14	14	
Confl. Bikes (#/hr)		1		3		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	7%	7%	5%	5%	5%	5%
Adj. Flow (vph)	369	300	935	125	542	1190
Shared Lane Traffic (%)						
Lane Group Flow (vph)	369	300	935	125	542	1190
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.9	28.6	39.9	55.3	17.2	64.6
Actuated g/C Ratio	0.15	0.32	0.44	0.61	0.19	0.72
v/c Ratio	0.73	0.36	0.43	0.14	0.85	0.48
Control Delay	48.2	28.4	18.3	6.0	49.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	28.4	18.3	6.0	49.4	6.4
LOS	D	C	B	A	D	A
Approach Delay	39.3		16.8			19.9
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 22.7
 Intersection LOS: C
 Intersection Capacity Utilization 52.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	369	300	935	125	542	1190
v/c Ratio	0.73	0.36	0.43	0.14	0.85	0.48
Control Delay	48.2	28.4	18.3	6.0	49.4	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	28.4	18.3	6.0	49.4	6.4
Queue Length 50th (ft)	96	69	133	23	154	136
Queue Length 95th (ft)	135	m93	154	39	#199	157
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	545	853	2189	940	652	2466
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	0.68	0.35	0.43	0.13	0.83	0.48

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.

HCM 6th Signalized Intersection Summary

100: E Johnson Street & First Street

04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶↶	↶↶	↶↶↶	↶	↶↶	↶↶
Traffic Volume (veh/h)	310	360	785	170	455	1000
Future Volume (veh/h)	310	360	785	170	455	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1796	1796	1826	1826	1826	1826
Adj Flow Rate, veh/h	369	300	935	125	542	1190
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	5	5	5	5
Cap, veh/h	466	866	2322	911	616	2539
Arrive On Green	0.14	0.14	0.47	0.47	0.18	0.73
Sat Flow, veh/h	3319	2679	5149	1490	3374	3561
Grp Volume(v), veh/h	369	300	935	125	542	1190
Grp Sat Flow(s),veh/h/ln	1659	1340	1662	1490	1687	1735
Q Serve(g_s), s	9.7	7.7	11.1	3.2	14.1	12.6
Cycle Q Clear(g_c), s	9.7	7.7	11.1	3.2	14.1	12.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	466	866	2322	911	616	2539
V/C Ratio(X)	0.79	0.35	0.40	0.14	0.88	0.47
Avail Cap(c_a), veh/h	553	936	2322	911	656	2539
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	37.4	23.2	15.8	7.6	35.8	4.9
Incr Delay (d2), s/veh	6.5	0.2	0.5	0.3	12.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	4.4	7.4	2.7	11.0	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.0	23.5	16.3	7.9	48.4	5.6
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	669		1060			1732
Approach Delay, s/veh	34.8		15.3			19.0
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.9	48.4			72.4	17.6
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	16.1	13.1			14.6	11.7
Green Ext Time (p_c), s	0.4	9.3			15.1	1.0
Intersection Summary						
HCM 6th Ctrl Delay			20.9			
HCM 6th LOS			C			

Lanes, Volumes, Timings
200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↘	
Traffic Volume (vph)	1	635	670	10	1	1
Future Volume (vph)	1	635	670	10	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.998		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1759	4838	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1759	4838	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	8%	8%	7%	7%	1%	1%
Adj. Flow (vph)	1	784	827	12	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	785	839	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕ ↑↑↑			↕	
Traffic Vol, veh/h	1	635	670	10	1	1
Future Vol, veh/h	1	635	670	10	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	8	8	7	7	1	1
Mvmt Flow	1	784	827	12	1	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	840	0	-	0	1621 422
Stage 1	-	-	-	-	834 -
Stage 2	-	-	-	-	787 -
Critical Hdwy	5.42	-	-	-	6.065 7.115
Critical Hdwy Stg 1	-	-	-	-	6.615 -
Critical Hdwy Stg 2	-	-	-	-	5.415 -
Follow-up Hdwy	3.176	-	-	-	3.6595 3.9095
Pot Cap-1 Maneuver	880	-	-	-	238 *757
Stage 1	-	-	-	-	761 -
Stage 2	-	-	-	-	437 -
Platoon blocked, %	1	-	-	-	1 1
Mov Cap-1 Maneuver	879	-	-	-	237 *756
Mov Cap-2 Maneuver	-	-	-	-	237 -
Stage 1	-	-	-	-	758 -
Stage 2	-	-	-	-	437 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	879	-	-	-	361
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	9.1	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

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

Lanes, Volumes, Timings
300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↕↕		↙	↕↕			↕			↕			
Traffic Volume (vph)	10	625	1	15	640	10	30	1	20	10	1	10		
Future Volume (vph)	10	625	1	15	640	10	30	1	20	10	1	10		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
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		
Ped Bike Factor														
Frt					0.998					0.947				
Flt Protected	0.999		0.950						0.971		0.977			
Satd. Flow (prot)	0	3370	0	1671	3336	0	0	1730	0	0	1718	0		
Flt Permitted	0.999		0.950						0.971		0.977			
Satd. Flow (perm)	0	3370	0	1671	3336	0	0	1730	0	0	1718	0		
Link Speed (mph)					25					25				
Link Distance (ft)					330					190				
Travel Time (s)					9.0					5.2				
Confl. Peds. (#/hr)	1			1	1			1	1			1		
Confl. Bikes (#/hr)			1					1			1	1		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84		
Heavy Vehicles (%)	7%	7%	7%	8%	8%	8%	1%	1%	1%	1%	1%	1%		
Adj. Flow (vph)	12	744	1	18	762	12	36	1	24	12	1	12		
Shared Lane Traffic (%)														
Lane Group Flow (vph)	0	757	0	18	774	0	0	61	0	0	25	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				
Link Offset(ft)					0					0				
Crosswalk Width(ft)					16					16				
Two way Left Turn Lane														
Headway 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		
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	35.5%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔	↔↔			↔			↔	
Traffic Vol, veh/h	10	625	1	15	640	10	30	1	20	10	1	10
Future Vol, veh/h	10	625	1	15	640	10	30	1	20	10	1	10
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	7	7	7	8	8	8	1	1	1	1	1	1
Mvmt Flow	12	744	1	18	762	12	36	1	24	12	1	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	775	0	0	746	0	0	1189	1581	375	1203	1575	389
Stage 1	-	-	-	-	-	-	770	770	-	805	805	-
Stage 2	-	-	-	-	-	-	419	811	-	398	770	-
Critical Hdwy	4.24	-	-	4.26	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.27	-	-	2.28	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	1139	-	-	820	-	-	*289	155	625	280	157	*822
Stage 1	-	-	-	-	-	-	*362	411	-	679	616	-
Stage 2	-	-	-	-	-	-	*775	611	-	602	411	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	1138	-	-	819	-	-	*274	149	624	259	150	*821
Mov Cap-2 Maneuver	-	-	-	-	-	-	*274	149	-	259	150	-
Stage 1	-	-	-	-	-	-	*355	403	-	666	601	-
Stage 2	-	-	-	-	-	-	*745	597	-	566	403	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			17.7			15.6		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	344	1138	-	-	819	-	-	365
HCM Lane V/C Ratio	0.176	0.01	-	-	0.022	-	-	0.068
HCM Control Delay (s)	17.7	8.2	0.1	-	9.5	-	-	15.6
HCM Lane LOS	C	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.1	-	-	0.2

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	645	10	0	665	0	15
Future Volume (vph)	645	10	0	665	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	4838	0	0	3343	0	1627
Flt Permitted						
Satd. Flow (perm)	4838	0	0	3343	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	7%	7%	8%	8%	1%	1%
Adj. Flow (vph)	768	12	0	792	0	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	780	0	0	792	0	18
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.7%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
400: East DW & First Street

04/26/2021

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	645	10	0	665	0	15
Future Vol, veh/h	645	10	0	665	0	15
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	8	8	1	1
Mvmt Flow	768	12	0	792	0	18

























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	392
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.91
Pot Cap-1 Maneuver	-	0	-	0	521
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	520
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	520	-	-	-
HCM Lane V/C Ratio	0.034	-	-	-
HCM Control Delay (s)	12.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	115	435	180	200	60	315	1040	90	50	1905	150
Future Volume (vph)	110	115	435	180	200	60	315	1040	90	50	1905	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1671	1759	2632	1719	1810	1538	3213	4759	1482	1719	4940	1538
Flt Permitted	0.624			0.482			0.950			0.236		
Satd. Flow (perm)	1095	1759	2596	872	1810	1516	3211	4759	1449	427	4940	1516
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	2		1	1		2	2		1	1		2
Confl. Bikes (#/hr)			1			1			1			1
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
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	8%	8%	8%	5%	5%	5%	9%	9%	9%	5%	5%	5%
Adj. Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021

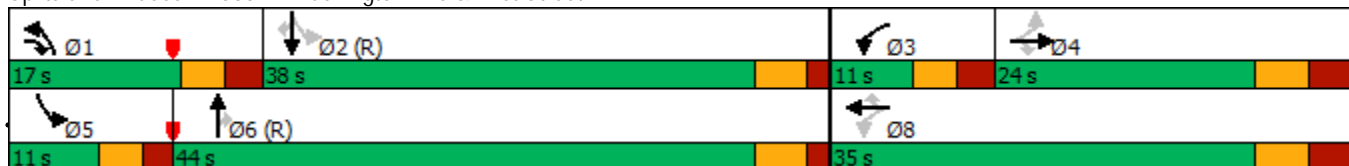


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	24.0	24.0	17.0	11.0	35.0	35.0	17.0	44.0	44.0	11.0	38.0	38.0
Total Split (%)	26.7%	26.7%	18.9%	12.2%	38.9%	38.9%	18.9%	48.9%	48.9%	12.2%	42.2%	42.2%
Maximum Green (s)	17.5	17.5	11.5	5.5	28.5	28.5	11.5	39.0	39.0	6.0	33.0	33.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.6	13.6	26.7	25.6	24.6	24.6	12.1	44.9	44.9	42.4	36.3	36.3
Actuated g/C Ratio	0.15	0.15	0.30	0.28	0.27	0.27	0.13	0.50	0.50	0.47	0.40	0.40
v/c Ratio	0.72	0.47	0.42	0.65	0.43	0.10	0.79	0.47	0.08	0.19	1.03	0.16
Control Delay	51.5	34.5	28.1	36.7	29.1	23.3	52.1	16.9	15.0	11.1	56.8	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	34.5	28.1	36.7	29.1	23.3	52.1	16.9	15.0	11.1	56.8	19.6
LOS	D	C	C	D	C	C	D	B	B	B	E	B
Approach Delay		34.3			31.9			24.7			53.9	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 7 (8%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 40.1
 Intersection LOS: D
 Intersection Capacity Utilization 82.0%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	118	124	327	194	215	40	339	1118	60	54	2048	100
v/c Ratio	0.72	0.47	0.42	0.65	0.43	0.10	0.79	0.47	0.08	0.19	1.03	0.16
Control Delay	51.5	34.5	28.1	36.7	29.1	23.3	52.1	16.9	15.0	11.1	56.8	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	34.5	28.1	36.7	29.1	23.3	52.1	16.9	15.0	11.1	56.8	19.6
Queue Length 50th (ft)	71	73	102	88	99	17	94	157	19	12	~496	38
Queue Length 95th (ft)	m99	m102	m132	140	156	39	#168	208	43	30	#595	74
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	212	342	782	299	573	480	440	2374	722	290	1991	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.36	0.42	0.65	0.38	0.08	0.77	0.47	0.08	0.19	1.03	0.16

Intersection Summary

- ~ 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.

HCM 6th Signalized Intersection Summary
500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗↘	↘	↑	↗	↗↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	110	115	435	180	200	60	315	1040	90	50	1905	150
Future Volume (veh/h)	110	115	435	180	200	60	315	1040	90	50	1905	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1826	1826	1826	1767	1767	1767	1826	1826	1826
Adj Flow Rate, veh/h	118	124	327	194	215	40	339	1118	60	54	2048	100
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
Percent Heavy Veh, %	8	8	8	5	5	5	9	9	9	5	5	5
Cap, veh/h	232	253	700	258	482	403	405	2505	767	311	2107	639
Arrive On Green	0.14	0.14	0.14	0.06	0.26	0.26	0.12	0.52	0.52	0.03	0.42	0.42
Sat Flow, veh/h	1068	1781	2610	1739	1826	1524	3264	4823	1477	1739	4985	1511
Grp Volume(v), veh/h	118	124	327	194	215	40	339	1118	60	54	2048	100
Grp Sat Flow(s),veh/h/ln	1068	1781	1305	1739	1826	1524	1632	1608	1477	1739	1662	1511
Q Serve(g_s), s	9.6	5.8	9.5	5.5	8.8	1.8	9.1	13.0	1.8	1.6	36.2	3.7
Cycle Q Clear(g_c), s	9.6	5.8	9.5	5.5	8.8	1.8	9.1	13.0	1.8	1.6	36.2	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	253	700	258	482	403	405	2505	767	311	2107	639
V/C Ratio(X)	0.51	0.49	0.47	0.75	0.45	0.10	0.84	0.45	0.08	0.17	0.97	0.16
Avail Cap(c_a), veh/h	288	346	837	258	578	483	417	2505	767	370	2107	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	35.6	27.7	34.1	27.6	25.0	38.5	13.5	10.8	13.9	25.4	16.1
Incr Delay (d2), s/veh	1.3	1.1	0.4	11.8	0.6	0.1	12.8	0.6	0.2	0.3	14.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	4.6	5.3	4.5	7.1	1.2	7.7	7.9	1.1	1.1	22.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	36.7	28.1	45.9	28.3	25.1	51.3	14.1	11.0	14.1	39.4	16.6
LnGrp LOS	D	D	C	D	C	C	D	B	B	B	D	B
Approach Vol, veh/h		569			449			1517			2202	
Approach Delay, s/veh		32.1			35.6			22.3			37.8	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	16.7	43.1	11.0	19.3	8.0	51.8		30.3				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	11.5	33.0	5.5	17.5	6.0	39.0		28.5				
Max Q Clear Time (g_c+I1), s	11.1	38.2	7.5	11.6	3.6	15.0		10.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	5.8		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			31.9									
HCM 6th LOS			C									

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Volume (vph)	0	15	0	1445	2510	10
Future Volume (vph)	0	15	0	1445	2510	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1627	0	4759	4940	1538
Flt Permitted						
Satd. Flow (perm)	0	1627	0	4759	4940	1538
Link Speed (mph)	25			35	35	
Link Distance (ft)	283			320	500	
Travel Time (s)	7.7			6.2	9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	9%	9%	5%	5%
Adj. Flow (vph)	0	16	0	1554	2699	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	1554	2699	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.8%			ICU Level of Service B		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	15	0	1445	2510	10
Future Vol, veh/h	0	15	0	1445	2510	10
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	9	9	5	5
Mvmt Flow	0	16	0	1554	2699	11



















Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	1352	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.12	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.91	-
Pot Cap-1 Maneuver	0	121	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	121	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	39.3	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	-	121	-
HCM Lane V/C Ratio	-	0.133	-
HCM Control Delay (s)	-	39.3	-
HCM Lane LOS	-	E	-
HCM 95th %tile Q(veh)	-	0.4	-

Lanes, Volumes, Timings
100: E Johnson Street & First Street

04/26/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 	 	  		 	 
Traffic Volume (vph)	300	555	1330	340	315	810
Future Volume (vph)	300	555	1330	340	315	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.88	0.91	1.00	0.97	0.95
Ped Bike Factor	0.99	0.99		0.97	1.00	
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	2787	5136	1599	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3412	2749	5136	1545	3416	3539
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	25		30		30	
Link Distance (ft)	310		700		500	
Travel Time (s)	8.5		15.9		11.4	
Confl. Peds. (#/hr)	2	1		13	13	
Confl. Bikes (#/hr)		1		5		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	70%	100%	62%	100%	100%
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Adj. Flow (vph)	309	401	1371	217	325	835
Shared Lane Traffic (%)						
Lane Group Flow (vph)	309	401	1371	217	325	835
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		24		24	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
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	Prot	NA

Lanes, Volumes, Timings
 100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	10.0	8.0	10.0	10.0	8.0	10.0
Minimum Split (s)	15.0	15.5	16.5	15.0	15.5	16.5
Total Split (s)	20.0	25.0	45.0	20.0	25.0	70.0
Total Split (%)	22.2%	27.8%	50.0%	22.2%	27.8%	77.8%
Maximum Green (s)	15.0	17.5	38.5	15.0	17.5	63.5
Yellow Time (s)	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	2.0	4.0	3.0	2.0	4.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.5	6.5	5.0	7.5	6.5
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.5	3.0	3.0	3.5
Recall Mode	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.0	24.6	43.9	58.4	14.1	65.5
Actuated g/C Ratio	0.14	0.27	0.49	0.65	0.16	0.73
v/c Ratio	0.62	0.53	0.55	0.21	0.61	0.32
Control Delay	47.1	32.4	17.9	5.8	40.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	32.4	17.9	5.8	40.0	4.9
LOS	D	C	B	A	D	A
Approach Delay	38.8		16.2			14.7
Approach LOS	D		B			B

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 65 (72%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 20.4
 Intersection LOS: C
 Intersection Capacity Utilization 59.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 100: E Johnson Street & First Street



Queues

100: E Johnson Street & First Street

04/26/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	309	401	1371	217	325	835
v/c Ratio	0.62	0.53	0.55	0.21	0.61	0.32
Control Delay	47.1	32.4	17.9	5.8	40.0	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	32.4	17.9	5.8	40.0	4.9
Queue Length 50th (ft)	86	99	194	37	89	75
Queue Length 95th (ft)	126	134	264	70	127	107
Internal Link Dist (ft)	230		620			420
Turn Bay Length (ft)						
Base Capacity (vph)	572	861	2507	1046	667	2576
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.47	0.55	0.21	0.49	0.32
Intersection Summary						

HCM 6th Signalized Intersection Summary
 100: E Johnson Street & First Street

04/26/2021



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	300	555	1330	340	315	810
Future Volume (veh/h)	300	555	1330	340	315	810
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	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	1885	1885	1870	1870
Adj Flow Rate, veh/h	309	401	1371	217	325	835
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	1	1	2	2
Cap, veh/h	525	761	2656	1037	418	2560
Arrive On Green	0.15	0.15	0.52	0.52	0.12	0.72
Sat Flow, veh/h	3456	2790	5316	1540	3456	3647
Grp Volume(v), veh/h	309	401	1371	217	325	835
Grp Sat Flow(s),veh/h/ln	1728	1395	1716	1540	1728	1777
Q Serve(g_s), s	7.5	11.0	15.8	4.9	8.2	7.7
Cycle Q Clear(g_c), s	7.5	11.0	15.8	4.9	8.2	7.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	525	761	2656	1037	418	2560
V/C Ratio(X)	0.59	0.53	0.52	0.21	0.78	0.33
Avail Cap(c_a), veh/h	576	803	2656	1037	672	2560
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	35.6	27.8	14.4	5.8	38.4	4.6
Incr Delay (d2), s/veh	1.3	0.6	0.7	0.5	3.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	6.6	9.9	4.4	6.5	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	28.4	15.1	6.2	41.5	4.9
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	710		1588			1160
Approach Delay, s/veh	32.1		13.9			15.2
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	18.4	52.9			71.3	18.7
Change Period (Y+Rc), s	7.5	6.5			6.5	5.0
Max Green Setting (Gmax), s	17.5	38.5			63.5	15.0
Max Q Clear Time (g_c+I1), s	10.2	17.8			9.7	13.0
Green Ext Time (p_c), s	0.7	12.7			9.0	0.7
Intersection Summary						
HCM 6th Ctrl Delay			18.1			
HCM 6th LOS			B			

Lanes, Volumes, Timings
200: First Street & Dayton Street

04/26/2021



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕↕↕		↕	
Traffic Volume (vph)	1	655	845	15	10	10
Future Volume (vph)	1	655	845	15	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Ped Bike Factor						
Frt			0.997		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1863	5070	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1863	5070	0	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		310	330		350	
Travel Time (s)		8.5	9.0		9.5	
Confl. Peds. (#/hr)	3			3	1	2
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	1	682	880	16	10	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	683	896	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	45.9%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection

Int Delay, s/veh 0.2

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕ ↕ ↕ ↕			↕	
Traffic Vol, veh/h	1	655	845	15	10	10
Future Vol, veh/h	1	655	845	15	10	10
Conflicting Peds, #/hr	3	0	0	3	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	1	682	880	16	10	10

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	899	0	-	0	1576	453
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	685	-
Critical Hdwy	5.33	-	-	-	6.065	7.115
Critical Hdwy Stg 1	-	-	-	-	6.615	-
Critical Hdwy Stg 2	-	-	-	-	5.415	-
Follow-up Hdwy	3.119	-	-	-	3.6595	3.9095
Pot Cap-1 Maneuver	*911	-	-	-	*296	*727
Stage 1	-	-	-	-	*776	-
Stage 2	-	-	-	-	*487	-
Platoon blocked, %	1	-	-	-	1	1
Mov Cap-1 Maneuver	*909	-	-	-	*293	*724
Mov Cap-2 Maneuver	-	-	-	-	*293	-
Stage 1	-	-	-	-	*772	-
Stage 2	-	-	-	-	*486	-

Approach EB WB SB

HCM Control Delay, s 0 0 14.1
HCM LOS B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	*909	-	-	-	417
HCM Lane V/C Ratio	0.001	-	-	-	0.05
HCM Control Delay (s)	9	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

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

Lanes, Volumes, Timings
300: West DW/Mifflin Street & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↙	↕↕			↕			↕	
Traffic Volume (vph)	10	650	5	35	820	15	30	1	20	10	1	10
Future Volume (vph)	10	650	5	35	820	15	30	1	20	10	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Ped Bike Factor												
Frt		0.999			0.997			0.947			0.936	
Flt Protected		0.999		0.950				0.972			0.977	
Satd. Flow (prot)	0	3532	0	1770	3529	0	0	1732	0	0	1720	0
Flt Permitted		0.999		0.950				0.972			0.977	
Satd. Flow (perm)	0	3532	0	1770	3529	0	0	1732	0	0	1720	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		330			190			400			350	
Travel Time (s)		9.0			5.2			10.9			9.5	
Confl. Peds. (#/hr)	1		2	2		1	1		5	5		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	10	670	5	36	845	15	31	1	21	10	1	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	685	0	36	860	0	0	53	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												
Headway 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
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	41.4%
ICU Level of Service	A
Analysis Period (min)	15

HCM 6th TWSC
300: West DW/Mifflin Street & First Street

04/26/2021

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↗	↕↔			↔			↔	
Traffic Vol, veh/h	10	650	5	35	820	15	30	1	20	10	1	10
Future Vol, veh/h	10	650	5	35	820	15	30	1	20	10	1	10
Conflicting Peds, #/hr	1	0	2	2	0	1	1	0	5	5	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	10	670	5	36	845	15	31	1	21	10	1	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	861	0	0	677	0	0	1191	1628	345	1287	1623	432
Stage 1	-	-	-	-	-	-	695	695	-	926	926	-
Stage 2	-	-	-	-	-	-	496	933	-	361	697	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	*1119	-	-	911	-	-	*382	165	654	*305	*167	*750
Stage 1	-	-	-	-	-	-	*401	444	-	*707	*620	-
Stage 2	-	-	-	-	-	-	*707	616	-	*633	*443	-
Platoon blocked, %	1	-	-	-	-	-	1	1	-	1	1	1
Mov Cap-1 Maneuver	*1118	-	-	909	-	-	*359	156	650	*280	*157	*749
Mov Cap-2 Maneuver	-	-	-	-	-	-	*359	156	-	*280	*157	-
Stage 1	-	-	-	-	-	-	*395	437	-	*697	*594	-
Stage 2	-	-	-	-	-	-	*668	590	-	*600	*436	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	14.7	15.1
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	422	* 1118	-	-	909	-	-	379
HCM Lane V/C Ratio	0.125	0.009	-	-	0.04	-	-	0.057
HCM Control Delay (s)	14.7	8.2	0.1	-	9.1	-	-	15.1
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.2

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

Lanes, Volumes, Timings
400: East DW & First Street

04/26/2021



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↗
Traffic Volume (vph)	645	35	0	870	0	15
Future Volume (vph)	645	35	0	870	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt	0.992			0.865		
Flt Protected						
Satd. Flow (prot)	5045	0	0	3539	0	1627
Flt Permitted						
Satd. Flow (perm)	5045	0	0	3539	0	1627
Link Speed (mph)	25			25	25	
Link Distance (ft)	190			220	232	
Travel Time (s)	5.2			6.0	6.3	
Confl. Peds. (#/hr)	2		2	1		1
Confl. Bikes (#/hr)	1					1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	1%	1%
Adj. Flow (vph)	665	36	0	897	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	701	0	0	897	0	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.4%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑		↑
Traffic Vol, veh/h	645	35	0	870	0	15
Future Vol, veh/h	645	35	0	870	0	15
Conflicting Peds, #/hr	0	2	2	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	1	1
Mvmt Flow	665	36	0	897	0	15

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	354
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.12
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.91
Pot Cap-1 Maneuver	-	0	-	0	551
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	549
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	549	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-
HCM Control Delay (s)	11.7	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	235	230	190	250	115	475	2125	180	75	1185	145
Future Volume (vph)	195	235	230	190	250	115	475	2125	180	75	1185	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	160		160	310		0	100		100
Storage Lanes	1		2	1		1	2		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	1787	1881	1599	3433	5085	1583	1770	5085	1583
Flt Permitted	0.599			0.297			0.950			0.141		
Satd. Flow (perm)	1110	1863	2744	557	1881	1573	3427	5085	1549	263	5085	1554
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		220			500			500			500	
Travel Time (s)		6.0			13.6			9.7			9.7	
Confl. Peds. (#/hr)	4		4	4		4	5		1	1		5
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	70%	100%	100%	62%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
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			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	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	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	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	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	

Lanes, Volumes, Timings
500: E Washington Ave & First Street

04/26/2021



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	Perm	NA	pm+ov	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases		4	1	3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6	2		2
Detector Phase	4	4	1	3	8	8	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	6.0	6.0	5.0	5.0	10.0	10.0	5.0	20.0	20.0	4.0	18.0	18.0
Minimum Split (s)	12.5	12.5	10.5	10.5	16.5	16.5	10.5	25.0	25.0	9.0	23.0	23.0
Total Split (s)	22.0	22.0	27.0	12.0	34.0	34.0	27.0	46.0	46.0	10.0	29.0	29.0
Total Split (%)	24.4%	24.4%	30.0%	13.3%	37.8%	37.8%	30.0%	51.1%	51.1%	11.1%	32.2%	32.2%
Maximum Green (s)	15.5	15.5	21.5	6.5	27.5	27.5	21.5	41.0	41.0	5.0	24.0	24.0
Yellow Time (s)	3.5	3.5	3.0	3.0	3.5	3.5	3.0	3.5	3.5	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5	3.0	3.0	2.5	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	5.5	5.5	6.5	6.5	5.5	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead			Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.5	2.5	2.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.5	15.5	33.7	28.5	27.5	27.5	17.2	43.0	43.0	33.3	28.3	28.3
Actuated g/C Ratio	0.17	0.17	0.37	0.32	0.31	0.31	0.19	0.48	0.48	0.37	0.31	0.31
v/c Ratio	1.06	0.77	0.16	0.75	0.45	0.15	0.76	0.91	0.16	0.43	0.77	0.19
Control Delay	119.6	50.9	21.3	44.0	28.3	23.9	42.0	29.7	14.9	21.2	32.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.6	50.9	21.3	44.0	28.3	23.9	42.0	29.7	14.9	21.2	32.9	25.3
LOS	F	D	C	D	C	C	D	C	B	C	C	C
Approach Delay		65.5			33.5			31.2			31.7	
Approach LOS		E			C			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 5 (6%), Referenced to phase 2:SBTL and 6:NBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 35.5
 Intersection LOS: D
 Intersection Capacity Utilization 88.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 500: E Washington Ave & First Street



Queues

500: E Washington Ave & First Street

04/26/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	203	245	168	198	260	74	495	2214	116	78	1234	94
v/c Ratio	1.06	0.77	0.16	0.75	0.45	0.15	0.76	0.91	0.16	0.43	0.77	0.19
Control Delay	119.6	50.9	21.3	44.0	28.3	23.9	42.0	29.7	14.9	21.2	32.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.6	50.9	21.3	44.0	28.3	23.9	42.0	29.7	14.9	21.2	32.9	25.3
Queue Length 50th (ft)	~132	143	44	86	118	30	138	428	37	19	231	39
Queue Length 95th (ft)	#271	#253	70	#175	190	64	180	#558	71	43	#333	83
Internal Link Dist (ft)		140			420			420			420	
Turn Bay Length (ft)	175			160		160	310			100		100
Base Capacity (vph)	191	320	1168	265	574	480	820	2429	739	181	1600	488
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.77	0.14	0.75	0.45	0.15	0.60	0.91	0.16	0.43	0.77	0.19

Intersection Summary

~ 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.

HCM 6th Signalized Intersection Summary
 500: E Washington Ave & First Street

04/26/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗↘	↘	↑	↗	↗↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (veh/h)	195	235	230	190	250	115	475	2125	180	75	1185	145
Future Volume (veh/h)	195	235	230	190	250	115	475	2125	180	75	1185	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	203	245	168	198	260	74	495	2214	116	78	1234	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	2	2	2
Cap, veh/h	259	322	941	256	576	480	582	2388	730	167	1721	519
Arrive On Green	0.17	0.17	0.17	0.07	0.31	0.31	0.17	0.47	0.47	0.04	0.34	0.34
Sat Flow, veh/h	1042	1870	2734	1795	1885	1571	3456	5106	1560	1781	5106	1540
Grp Volume(v), veh/h	203	245	168	198	260	74	495	2214	116	78	1234	94
Grp Sat Flow(s),veh/h/ln	1042	1870	1367	1795	1885	1571	1728	1702	1560	1781	1702	1540
Q Serve(g_s), s	15.5	11.2	3.9	6.5	10.0	3.1	12.5	36.7	3.8	2.6	19.0	3.9
Cycle Q Clear(g_c), s	15.5	11.2	3.9	6.5	10.0	3.1	12.5	36.7	3.8	2.6	19.0	3.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	322	941	256	576	480	582	2388	730	167	1721	519
V/C Ratio(X)	0.78	0.76	0.18	0.77	0.45	0.15	0.85	0.93	0.16	0.47	0.72	0.18
Avail Cap(c_a), veh/h	259	322	941	256	576	480	826	2388	730	188	1721	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	35.5	20.8	30.9	25.2	22.8	36.3	22.5	13.8	22.8	26.1	21.1
Incr Delay (d2), s/veh	13.9	9.7	0.1	13.6	0.6	0.1	4.4	7.8	0.5	2.0	2.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.4	9.9	2.2	3.9	8.0	2.1	9.3	21.4	2.6	2.0	12.3	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	45.2	20.9	44.5	25.7	22.9	40.7	30.3	14.2	24.9	28.7	21.8
LnGrp LOS	D	D	C	D	C	C	D	C	B	C	C	C
Approach Vol, veh/h		616			532			2825			1406	
Approach Delay, s/veh		40.8			32.3			31.4			28.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	35.3	12.0	22.0	8.9	47.1		34.0				
Change Period (Y+Rc), s	5.5	5.0	5.5	6.5	5.0	5.0		6.5				
Max Green Setting (Gmax), s	21.5	24.0	6.5	15.5	5.0	41.0		27.5				
Max Q Clear Time (g_c+I1), s	14.5	21.0	8.5	17.5	4.6	38.7		12.0				
Green Ext Time (p_c), s	0.6	2.1	0.0	0.0	0.0	2.0		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			31.7									
HCM 6th LOS			C									

Lanes, Volumes, Timings
600: E Washington Ave & South DW

04/26/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Volume (vph)	0	15	0	2780	1575	30
Future Volume (vph)	0	15	0	2780	1575	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00
Ped Bike Factor						
Frt		0.865				0.850
Flt Protected						
Satd. Flow (prot)	0	1627	0	5085	5085	1583
Flt Permitted						
Satd. Flow (perm)	0	1627	0	5085	5085	1583
Link Speed (mph)	25			35	35	
Link Distance (ft)	283			320	500	
Travel Time (s)	7.7			6.2	9.7	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Adj. Flow (vph)	0	16	0	2896	1641	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	2896	1641	31
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	64.0%			ICU Level of Service C		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑↑	↗
Traffic Vol, veh/h	0	15	0	2780	1575	30
Future Vol, veh/h	0	15	0	2780	1575	30
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	0	16	0	2896	1641	31

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	823	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	7.12	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.91	-
Pot Cap-1 Maneuver	0	274	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	273	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	273	-	-
HCM Lane V/C Ratio	-	0.057	-	-
HCM Control Delay (s)	-	19	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-