PROJECT TRAFFIC ANALYSIS REPORT

Florida Department of Transportation

District One

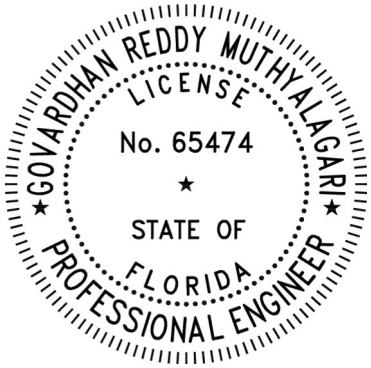
Old Dixie Trail Project Development & Environment Study

Auburndale Trailhead on the Auburndale TECO Trail and Haines City Trailhead on the Haines City Trail
Polk County, Florida

Financial Project ID: 435391-1-22-01

Date: September 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by FHWA and FDOT.



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September 2024

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) District One is conducting a Project Development and Environment (PD&E) Study, in accordance with the National Environmental Policy Act (NEPA) to provide regional connectivity, contribute to safe multimodal access to community and recreational destinations, enhance quality of life and foster economic development in the area for the Old Dixie Trail. The project proposes a multi-use trail, up to 12-feet wide and approximately 12-miles in length, between the Auburndale Trailhead of the Auburndale TECO Trail to the Haines City Trailhead of the Haines City Trail in Polk County.

This study documents the Existing Year (2019), Opening Year (2030), and Design Year (2050) traffic and multimodal analysis. Due to the multi-use trail being a separated facility, no roadway or intersection improvements were evaluated as part of this study.

The signalized and un-signalized intersections within the study area were analyzed for the Existing Year (2019), Opening Year (2030), and Design Year (2050) operating conditions. Synchro 11 was used to analyze all the signalized and un-signalized intersections within the study and the procedures outlined in the Highway Capacity Manual (HCM) 2000 were used for the Synchro analysis. In the Existing Year (2019) analysis, the overall intersection delays range from 1.3 seconds/vehicle to 76.7 seconds/vehicle in the AM peak hour and from 1.7 seconds/vehicle to 81.9 seconds/vehicle in the PM peak hour. Two out of the nine intersections experience excessive delays and operate at the LOS of ‘E’ and ‘F’ during the AM and PM peak hours, respectively.

In the Opening Year (2030) analysis, the overall intersection delays range from 1.4 seconds/vehicle to 174.9 seconds/vehicle in the AM peak hour and from 2.0 seconds/vehicle to 202.3 seconds/vehicle in the PM peak hour. Six out of the nine intersections experience excessive delays and operate at the LOS of ‘E’ and ‘F’ during the AM and PM peak hours, respectively. For the Design Year (2050) analysis, the overall intersection delays range from 3.5 seconds/vehicle to 585.1 seconds/vehicle in the AM peak hour and from 7.0 seconds/vehicle to 574.4 seconds/vehicle in the PM peak hour. Eight out of the nine intersections experience excessive delays and operate at the LOS of ‘E’ and ‘F’ during the AM and PM peak hours, respectively. To improve intersection operations for the future years, capacity improvements would need to be implemented to accommodate peak hour demand volumes.

A multimodal level of service analysis was done to compare the No-Build and Build Alternatives. The No-Build Alternative assumes that the existing lane geometry would remain within the project limits through the Design Year (2050). The No-Build Alternative pedestrian and bicycle infrastructure was evaluated based on the latest FDOT 2023 Multimodal Q/LOS Handbook. Both Pedestrian and Bicycle Level of Traffic Stress (LTS) is split into four categories with LTS 1 indicating a high level of comfort, suitable for all users especially those populations most vulnerable, and LTS 4 indicating the lowest level of comfort, most likely used only by those with limited route or mode choice. It was found for the No-Build Alternative Pedestrian and Bicycle Level of Traffic Stress (LTS) that ten out of the 15 segments analyzed within the study area exhibited pedestrian LTS 3 or 4, and 12 out of the 15 segments exhibited

bicycle LTS 3 or 4, respectively. The Build Alternative incorporated the approximately 12-mile multi-use trail facility along the study roadways. All 16 segments analyzed within the study area exhibited pedestrian LTS 1 or 2, and 14 out of the 16 segments analyzed exhibited bicycle LTS 1. Two segments located on North 6th Street and Court Avenue exhibited LTS 3 due to sharrows being present on these segments and lack of a separated facility, however, the Build Alternative adds an 8-foot sidewalk on these segments that is not present in the No-Build Alternative.

A safety review was undertaken to assess the existing conditions as well as provide insight into the potential benefits of the Build Alternative. The Build Alternative is expected to provide a facility separated from area roadways to minimize conflicts between non-motorized travel modes and vehicles, creating safer travel conditions for both trail users and vehicular traffic on area roadways.

Bicycle/pedestrian only crash data was taken from FDOT's Statewide Crash Analysis Reporting (CAR) on-line database and Signal Four Analytics during a five-year period from 2015 to 2019. A total of 18 bicycle and pedestrian collisions were reported along the entire trail from 2015 to 2019. Six (33%) of the collisions involved a bicycle and 12 (67%) of the collisions involved a pedestrian. Of the six bicycle crashes, there was one serious injury, four injury, and one property damage only crashes. Of the 12 pedestrian crashes, there was one fatal crash, two serious injury crashes, and nine injury crashes. Of the total collisions, 12 (67%) were during nighttime and 2 (11%) were during wet weather. The total economic loss from the pedestrian and bicycle crashes were assessed and were estimated to cost $15,599,210.

To evaluate the potential safety improvements along Old Dixie Trail, as well as at study intersections in the Build Alternative, a literature review was performed to see the safety benefit from implementing a shared-use path, and crash modification factors for safety countermeasures were utilized from the Crash Modification Factors (CMF) Clearinghouse (Source: http://www.cmfclearinghouse.org/) and from pedestrian and bicycle safety studies provided by the Federal Highway Administration (FHWA). From the literature review it was found that riding on shared-use paths were found to reduce injury risk for adults by 86 percent and 88 percent for children, as compared to riding in the street. Also, riders on shared-use paths were associated with a 40 percent reduction in the risk of falling as compared to riding on roadways. It could be concluded from this study that providing separated infrastructure, such as a shared-use path/trail, will provide a benefit in terms of a reduction in injury related crashes.

Countermeasures were analyzed at the study intersections to determine the potential safety benefits at crossing locations. Countermeasures such as leading pedestrian intervals, pedestrian countdown timers, flashing beacons (RRFB and PHB), advanced yield warnings, and signal backplates have been found to provide a safety benefit, especially related to a reduction in vehicle and pedestrian crashes. Based on the CMF review, reductions in vehicle and pedestrian crashes were between 8.8% to 56.8% based on the treatment type. Countermeasures will need to be provided at trail crossing locations to provide safer travel conditions for both trail users and vehicular traffic.

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Acronyms

AADT	Annual Average Daily Traffic
ATR	Automatic Traffic Recorder
BEBR	Bureau of Economic and Business Research
BLTS	Bicycle Level of Traffic Stress
CAR	FDOT's Statewide Crash Analysis Reporting Online Database
CMF	Crash Modification Factor
CR	County Road
CRF	Crash Reduction Factor
D1RPM	District One Regional Planning Model
DDHV	Directional Design Hourly Volume
DU	Dwelling Units
FDOT	Florida Department of Transportation
FDM	FDOT Design Manual
FHWA	Federal Highway Administration
FTO	Florida Traffic Online
HCM	Highway Capacity Manual
LOS	Level of Service
LPI	Leading Pedestrian Interval
LTS	Level of Traffic Stress
MOE	Measure of Effectiveness
MUTS	Manual on Uniform Traffic Studies
NEPA	National Environmental Policy Act
PD&E	Project Development and Environment
PHB	Pedestrian Hybrid Beacon
PHF	Peak Hour Factor
PHV	Peak Hour Volume
PLTS	Pedestrian Level of Traffic Stress
PTAR	Project Traffic Analysis Report
RRFB	Rectangular Rapid Flashing Beacon
SF	Seasonal Factor
SHS	State Highway System
SR	State Road
SUN	Shared-Use Nonmotorized
TMC	Turning Movement Count
TOD	Time of Day
TPO	Transportation Planning Organization

1 INTRODUCTION

1.1 Project Background

The Florida Department of Transportation (FDOT) District One is conducting a Project Development and Environment (PD&E) Study, in accordance with the National Environmental Policy Act (NEPA) to provide regional connectivity, contribute to safe multimodal access to community and recreational destinations, enhance quality of life and foster economic development in the area for the Old Dixie Trail. The project proposes a multi-use trail, up to 12-feet wide and approximately 12-miles in length, between the Auburndale Trailhead of the Auburndale TECO Trail to the Haines City Trailhead of the Haines City Trail in Polk County.

1.2 Project Location

The study area for the proposed project spans between the cities of Auburndale and Haines City and includes connecting the Auburndale TECO trailhead to the Haines City trailhead. The study area consists of numerous transportation options including roadways, transit, and multi-use trails that span four municipalities, Auburndale, Winter Haven, Lake Alfred, and Haines City. The project location is shown in the **Figure 1-1**.

1.3 Purpose and Need

The purpose of the project is to address an existing gap in the regional trail network between the communities of Auburndale and Haines City in Polk County, Florida. The proposed project will connect to existing multi-use trails as well as provide regional connectivity. Other goals of the project are to provide a safe, viable, nonmotorized travel option for commuters and recreational trail users to access area destinations and support quality of life and economic objectives of the surrounding area. The need for the proposed trail project is based on the following:

Area Wide Network / System Linkage: Regional Bicycle and Pedestrian Connectivity
As identified by the Florida Department of Environmental Protection Office of Greenways and Trails, Old Dixie Trail is proposed to serve as part of the regional Heartland Trail and, in turn, part of Florida's designated Shared-Use Nonmotorized (SUN) trail network. The proposed project also aligns with the stated goal of Polk County to create a connected multimodal transportation system. As the project is expected to link to existing trails of the area [including the Haines City Trail, Chain of Lakes / Lake Alfred Trail, and Auburndale Trail / Van Fleet Trail], it is intended to bridge a gap in the regional trail system as well as address the need for a connected bicycle and pedestrian network, especially within Polk County.

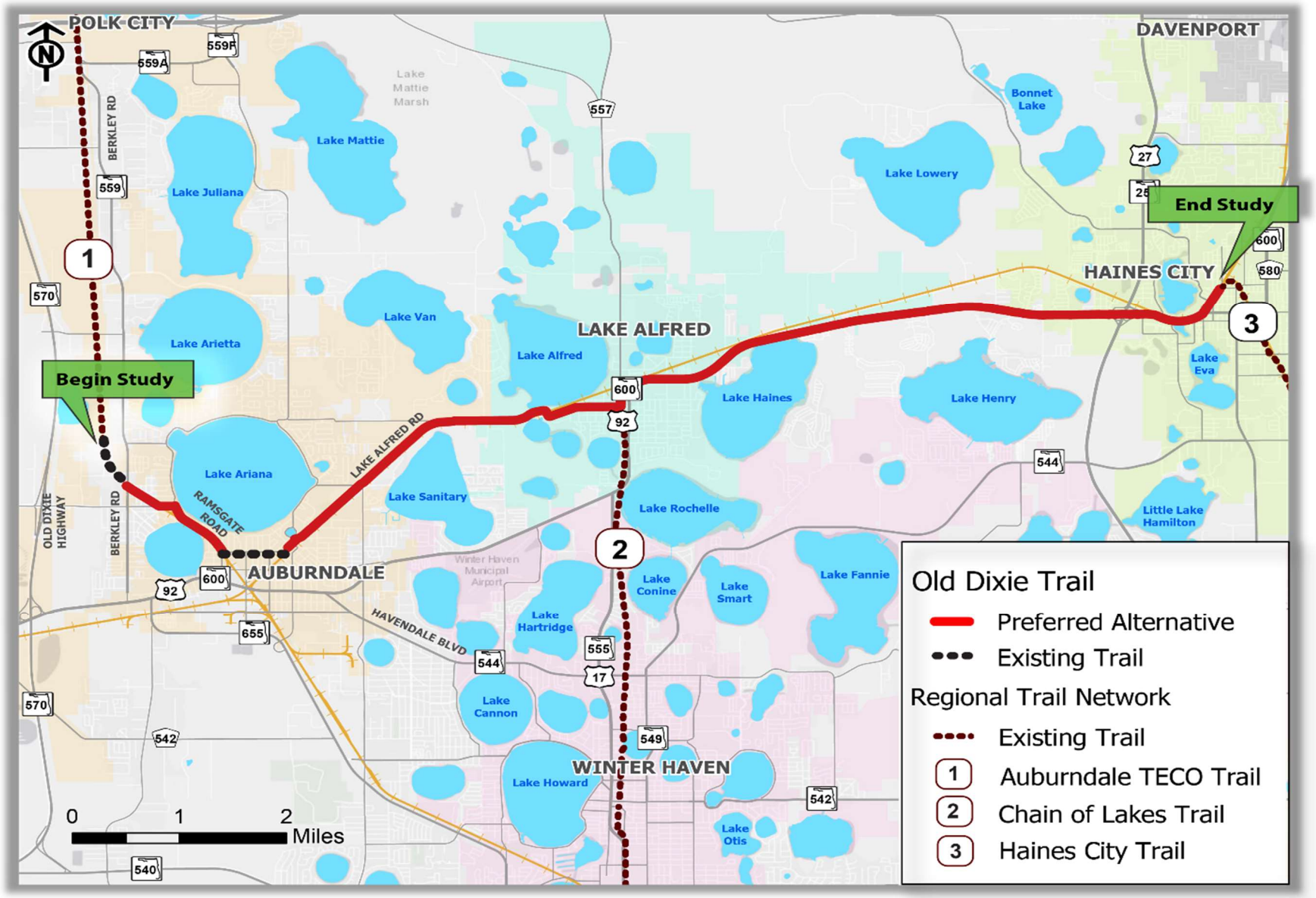
Safety: Provide Safe Multimodal Access to Destinations

Old Dixie Trail is proposed to link the communities of Auburndale and Haines City to each other [including each community's respective amenities] through trailheads, as well as connect the two communities to the region's schools, parks, cultural resources, employment centers, recreational facilities, conservation viewsheds, and other area destinations. Pedestrian and bicycle traffic has been observed in the field given the presence of these community and regional focal points despite the presence of intermittent and disconnected sidewalks and bicycle lanes.

Overall, Old Dixie Trail is expected to:

- Provide a facility separated from area roadways to minimize conflicts between non-motorized travel modes and vehicles, creating safer travel conditions for both trail users and vehicular traffic on area roadways.
- Provide a safe, viable, non-motorized travel option for commuters and recreational trail users to access area destinations supporting both economic productivity and enhanced quality of life aspects.
- Address the latent demand for increased bicycle and pedestrian activity due to improved access to the present community and regional focal points.

Figure 1-1 – Project Location Map



2 EXISTING CONDITIONS

2.1 Existing Roadway Conditions and Classifications

The project study area is bisected by numerous federal, state, county, and local facilities. Roadways along the state highway system include: US 17/US 92, which runs west to east from Auburndale to Lake Alfred to Haines City; US 17/Lake Alfred Road, which traverses north to south, from Lake Alfred to Winter Haven; US 27, which tracks north-south between Winter Haven and Haines City in the eastern part of the study area; State Road (SR) 17 , a north/south corridor in Haines City; SR 544/Havendale Boulevard/Lucerne Park Road, which traverses the southern portion of the study area in Winter Haven; US 17/SR 555 runs north/south from Winter Haven to Lake Alfred; SR 559 in Auburndale; and US 92/SR 600, an east/west corridor through Auburndale. The limits of the Old Dixie Trail study corridor consist of abandoned railroad right-of-way, local city two-lane roadways with existing sidewalks, existing multi-use paths, recreation areas, and state and local right-of-way. This corridor begins at the intersection of Berkley Road and Deen Boulevard within the city limits of Auburndale at the end of the TECO Auburndale trailhead. This corridor ends at the intersection of Lily Avenue and North 7th Street at the end of the Haines City trailhead. For project purposes, the project is broken into 10 segments and the typical section for each segment is described in **Table 2-1**.

Table 2-1 – Adjacent Roadway Typical Sections

SEGMENT	POSTED SPEED LIMIT	DESIGN SPEED	TRAFFIC LANES	BORDER TYPE	
				ROADSIDE DITCH	CURB AND GUTTER
Segment 1: BERKLEY RD/DEEN BLVD TO DIXIE HWY/CSX RR	N/A	18 MPH FORMER CSX RR	N/A	X	
Segment 2: DIXIE HWY/CSX RR TO RAMSGATE RD/ PILAKLAKAHA AVE	40 MPH	40 MPH	2	X	
Segment 3: PILAKLAKAHA AVE/W PARK ST TO AUBURNDALE HS	25 MPH W PARK ST / 45 MPH STADIUM RD	25 MPH W PARK ST / 45 MPH STADIUM RD	2	X	X

SEGMENT	POSTED SPEED LIMIT	DESIGN SPEED	TRAFFIC LANES	BORDER TYPE	
				ROADSIDE DITCH	CURB AND GUTTER
Segment 4: AUBURNDALE HS TO W PIERCE ST/CSX RR	45 MPH	45 MPH	2	X	
Segment 5: W PIERCE ST/CSX RR TO W PIERCE ST/SHINN BLVD	30 MPH	30 MPH	2	X	X
Segment 6: SHINN BLVD/W HAINES BLVD TO US 17/92/N/ROCHELL AVE	35 MPH SHINN BLVD / LAKE SHORE WAY / 40 MPH E POMELO ST	35 MPH SHINN BLVD / LAKE SHORE WAY / 40 MPH E POMELO ST	2 TO 3		X
Segment 7: US 17/92/N ROCHELL AVE TO US 17/92/CENTURY DR	35-60 MPH	60 MPH	4	X	X
Segment 8: US 17/92/CENTURY DR TO US 17/92/MCKAY DR	45-60 MPH	60 MPH	4	X	
Segment 9: US 17/92/MCKAY DR TO E HINSON AVE / N 6TH ST	30-45 MPH	45 MPH	4		X
Segment 10: E HINSON AVE / N 6TH ST TO HAINES CITY TRAIL	25 MPH N 5TH ST / 15 MPH N 6TH ST / COURT AVE / PARK PL	25 MPH N 5TH ST / 15 MPH N 6TH ST / COURT AVE / PARK PL	2	X	X

2.2 Data Collection

Traffic counts collected for this study include 72-hour Automatic Traffic Recorder (ATR) counts for the US-27/US-17 interchange ramps and underpass, and 8-hour Turning Movement Counts (TMCs) for the signalized and un-signalized intersections that fall within the study area. All counts were collected in 2019 on Tuesday, Wednesday and/or Thursday to represent typical weekday traffic conditions. The 8-hour TMCs were collected from 7:00 – 10:00 AM, 11:00 AM – 1:00 PM and 3:00 – 6:00 PM. All counts were collected in accordance with the Manual on Uniform Traffic Studies (MUTS) and the 2019 Project Traffic Forecasting Handbook.

The 72-hour ATR counts were collected at the following locations:

- WB US 17 ON Ramp to SB US 27
- US 27 SB Off Ramp to WB US 17
- EB US 17 ON Ramp to SB US 27
- US 27 SB OFF Ramp to EB US 17
- EB US 17 ON Ramp to NB US 27
- NB US 27 OFF Ramp to EB US 17
- WB US 17-ON Ramp to NB US 27
- NB US 27 OFF Ramp to WB US 17
- EB US 17 Underpass of US 27
- WB US 17 Underpass of US 27

Further, 8-Hour TMCs were collected at the following intersection locations:

- Berkley Road at Dixie Highway
- Pilaklakaha Avenue at Ramsgate Road*
- US 92 (Magnolia Avenue) at SR 559/Main Street
- SR 544/Havendale Boulevard at US 17
- US 17 at West Haines Boulevard*
- US 17 at East Pomelo Street
- US 27 at SR 544
- SR 17/North 10th Street at East Hinson Avenue
- US 17/North 17th Street at East Hinson Avenue

**Un-Signalized (Stop Controlled) intersections*

The Existing Year (2019) AM and PM peak hours were determined from the 8-hour TMCs. For the intersections that are isolated from each other, their respective peak volumes were used to obtain their AM and PM hours. This was done as a conservative approach to capture the worst operational conditions. However, for the intersections that are adjacent to each other, same AM and PM peak hours were taken to replicate field conditions. Raw 72-hour ATR counts and 8-hour TMCs collected are included in the **Appendix A**. Additionally, Annual Average Daily Traffic (AADT) and traffic factor data including K, D, and T values were obtained from Florida Traffic Online (FTO) and the 2017 Polk Transportation Planning Organization (TPO) roadway network database and can be seen in **Table 2-2**.

Table 2-2 – Existing Year (2019) AADT and Traffic Factors

SEGMENT	Description	2019 AADT	K	D	T	Source
1	FORMER CSX RAILROAD BERKLEY RD. TO OLD DIXIE HWY	No Data Available				
2	OLD DIXIE HIGHWAY/RAMSGATE ROAD OLD DIXIE HWY. TO PILAKLAKAHA AVE.	3,800	9	56	5	FTO
3	W. PARK STREET PILAKLAKAHA AVE. TO MAIN ST	3,700	9	56	5.3	Polk TPO/FTO
3	STADIUM ROAD MAIN ST. TO OHIO ST	3,200	9	56	13.3	FTO
4	STADIUM ROAD/OLD LAKE ALFRED ROAD OHIO ST. TO SOUTH OF CSX CROSSING	4,600	9	56	13.3	FTO
5	PIERCE STREET SOUTH OF CSX CROSSING TO SHINN BLVD	3,700	9	56	13.3	Polk TPO/FTO
6	SHINN BOULEVARD/US 92/US 17 W. HAINES BLVD. TO POLEMO ST	18,500	9	100	8.8	FTO
6	POMELO STREET SHINN BLVD./US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	16,600	9	56	8.8	Polk TPO/FTO
6	LAKE SHORE WAY /US 92/US 17 POMELO ST. TO N. ROCHELLE AVE	11,000	9	100	8.3	FTO
7	US 92/US 17 N. ROCHELLE AVE. TO CENTURY DR.	21,500	9	56	8	FTO
8	US 92/US 17 CENTURY DR. TO W. OF C ST	28,500	9	56	8.5	FTO
9	HINSON AVENUE/US 17 /US 92 W. OF C ST. TO N. 6TH ST	26,500	9	56	5.1	FTO
10	N. 6TH ST. E. HINSON AVE. TO COURT AVE	No Data Available				
10	COURT AVENUE N. 5TH ST. TO N 6TH ST	No Data Available				
10	N. 5TH ST COURT AVE. TO E. MAIN ST	950	9	56	13.3	FTO
10	PARK PLACE INGRAHAM AVE. TO LILY AVE	No Data Available				

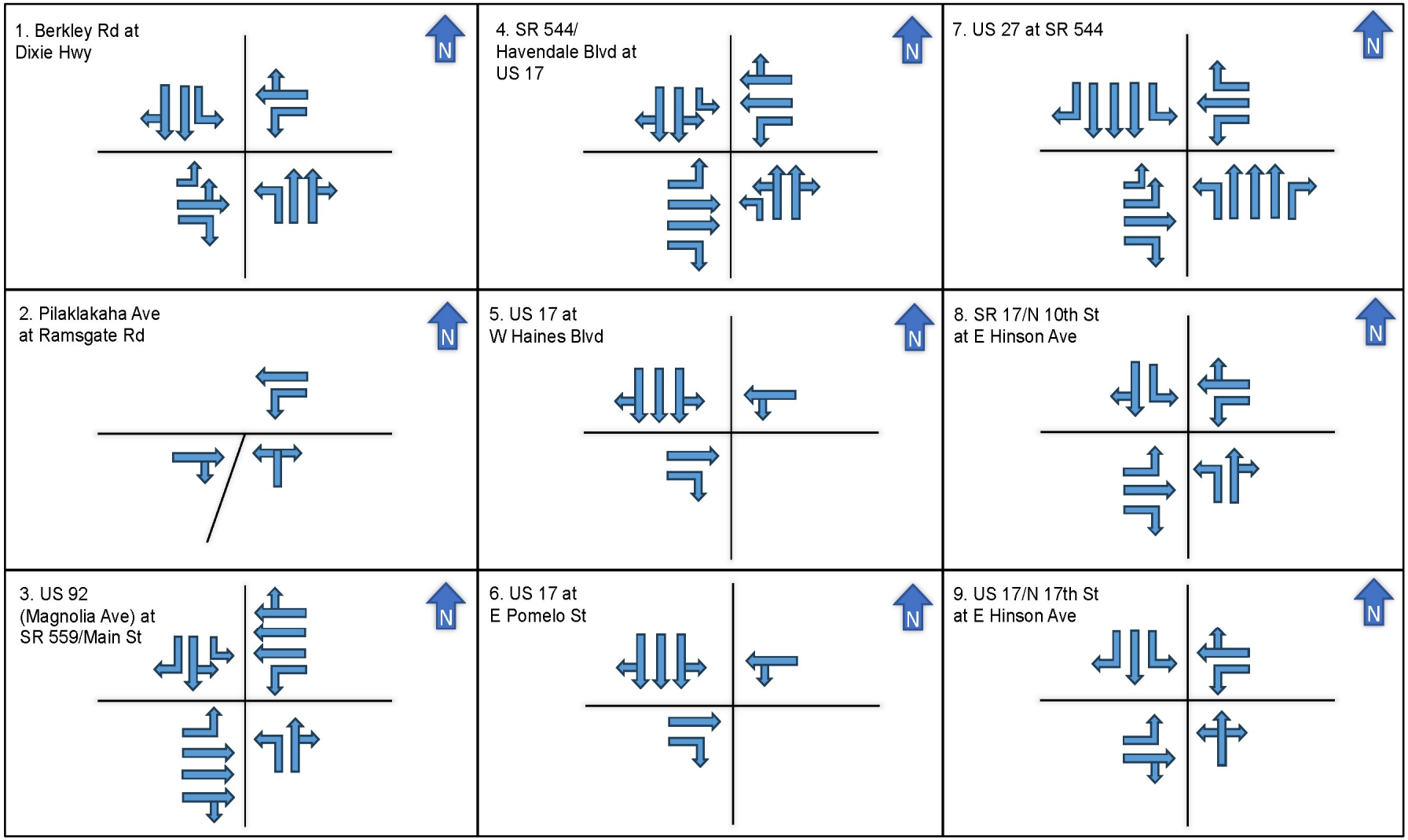
2.3 Existing Year (2019) Traffic Characteristics

The Existing Year (2019) raw TMCs were adjusted using the latest Seasonal Factors (SF) to account for the seasonal changes in traffic volumes before using them in the Synchro analysis. These Seasonal Factors (SF) were taken from the FDOT Traffic Information Online (FTO) and are included in **Appendix B**. Heavy vehicle percentages and Peak Hour Factors (PHF) used in the analysis were also taken from the Existing Year (2019) TMCs. Further, the current signal timings with Time of the Day (TOD) plans used in the analysis were obtained from the Polk County and the City of Winter Haven and are included in the **Appendix C**. **Table 2-3** illustrates the balanced Existing Year (2019) Peak Hour Volumes (PHV) for the study limits. Additionally, the lane geometry for each of the study area intersections can be seen in **Figure 2-1**.

Table 2-3 – Existing Year (2019) Peak Hour Volumes

No.	Intersection	Approach	AM Volume			PM Volume		
			LT	Thru	RT	LT	Thru	RT
1	Berkley Rd at Dixie Hwy	EB	65	82	222	203	133	215
		WB	72	121	31	73	109	44
		NB	204	330	86	255	607	96
		SB	83	631	272	53	438	83
2	Pilaklakaha Ave at Ramsgate Rd	EB	-	292	15	-	215	11
		WB	38	144	-	62	271	-
		NB	9	-	18	16	-	29
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	119	993	42	160	1,318	47
		WB	73	1,102	55	46	1,250	124
		NB	155	162	38	111	185	46
		SB	93	156	98	154	102	102
4	SR 544/ Havendale Blvd at US 17	EB	156	676	474	156	758	316
		WB	153	578	185	117	591	185
		NB	311	446	33	398	667	40
		SB	288	677	47	216	650	79
5	US 17 at W Haines Blvd	EB	-	112	15	-	22	5
		WB	46	38	-	47	29	-
		SB	16	1,466	16	19	1,539	12
6	US 17 at E Pomelo St	EB	-	103	802	-	92	768
		WB	2	599	-	9	543	-
		SB	5	896	60	6	824	62
7	US 27 at SR 544	EB	517	163	161	498	203	121
		WB	112	203	108	100	165	98
		NB	195	1,202	80	152	1,266	115
		SB	106	998	547	128	1,293	539
8	SR 17/ N 10th St at E Hinson Ave	EB	31	384	75	32	571	128
		WB	141	490	8	164	515	13
		NB	156	172	117	169	152	188
		SB	59	157	53	92	260	53
9	US 17/ N 17th St at E Hinson Ave	EB	363	200	7	354	346	9
		WB	7	343	112	4	272	110
		NB	15	21	3	33	43	8
		SB	71	20	324	130	94	365

Figure 2-1 – Existing Year (2019) Lane Geometry



2.4 Existing Year (2019) Operational Analysis

The signalized and un-signalized intersections within the study area were analyzed for the Existing Year (2019) operating conditions. The acceptable intersection Level of Service (LOS) target for the State Highway System during peak travel hours is LOS D. Synchro 11 was used to analyze all the signalized and un-signalized intersections within the study area for the Existing Year (2019) AM and PM peak hours. The procedures outlined in the Highway Capacity Manual (HCM) 2000 were used for the Synchro analysis. The intersection analysis results are summarized below in the **Table 2-4** and the Synchro reports are included in the **Appendix D**.

Table 2-4 – Existing Year (2019) Intersection Operational Analysis

No.	Intersection	Approach	AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Berkley Rd at Dixie Hwy	EB	55.8	E	42.9	D
		WB	57.7	E	46.3	D
		NB	22.4	C	28.9	C
		SB	34.0	C	38.6	D
	Overall Intersection		**36.8**	**D**	**36.4**	**D**
2	Pilaklakaha Ave at Ramsgate Rd	EB	0.0	A	0.0	A
		WB	1.7	A	1.5	A
		NB	12.4	B	12.0	B
	Overall Intersection		**1.3**	**A**	**1.7**	**A**
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	25.6	C	31.4	C
		WB	29.7	C	37.5	D
		NB	64.1	E	53.5	D
		SB	57.6	E	63.7	E
	Overall Intersection		**35.2**	**D**	**39.0**	**D**
4	SR 544/ Havendale Blvd at US 17	EB	55.2	E	62.8	E
		WB	80.2	F	84.6	F
		NB	74.8	E	82.4	F
		SB	102.7	F	103.6	F
	Overall Intersection		**76.7**	**E**	**81.9**	**F**
5	US 17 at W Haines Blvd	EB	78.1	E	29.9	C
		WB	39.0	D	21.3	C
		SB	0.1	A	0.1	A
	Overall Intersection		**7.8**	**A**	**1.6**	**A**
6	US 17 at E Pomelo St	EB	112.7	F	53.3	D
		WB	23.6	C	18.8	B
		SB	22.0	C	22.7	C
	Overall Intersection		**55.7**	**E**	**33.2**	**C**

7	US 27 at SR 544	EB	40.0	D	39.0	D
		WB	54.1	D	51.7	D
		NB	45.5	D	42.8	D
		SB	43.2	D	41.9	D
	Overall Intersection		**44.4**	**D**	**42.5**	**D**
8	SR 17/ N 10th St at E Hinson Ave	EB	41.7	D	44.1	D
		WB	38.2	D	30.4	C
		NB	30.2	C	42.2	D
		SB	35.6	D	53.0	D
	Overall Intersection		**36.8**	**D**	**41.2**	**D**
9	US 17/ N 17th St at E Hinson Ave	EB	9.5	A	7.4	A
		WB	17.9	B	17.2	B
		NB	35.5	D	46.5	D
		SB	36.2	D	47.8	D
	Overall Intersection		**20.2**	**C**	**24.8**	**C**

The overall intersection delays range from 1.3 seconds/vehicle to 76.7 seconds/vehicle in the AM peak hour and from 1.7 seconds/vehicle to 81.9 seconds/vehicle in the PM peak hour. The intersection of SR 544/Havendale Boulevard at US 17 experiences excessive delays and operates at the LOS of ‘E’ and ‘F’ during AM and PM peak hours, respectively. Also, the intersection of US 17 at East Pomelo Street operates at the LOS of ‘E’ during the AM peak hour. All the rest of the intersections operate at the acceptable LOS of ‘D’ or better during both AM and PM peak hours.

Further, 95th percentile vehicle queue lengths were also determined from the Synchro analysis as detailed in the **Table 2-5** and also included in **Appendix D**. The locations where the 95th percentile queue lengths exceed turn bays are highlighted in the table.

Table 2-5 – Existing Year (2019) Queue Lengths

No.	Intersection	Movement	Turn Bay Length (ft)	95th %tile Queue Length (ft)	
				AM Peak	PM Peak
1	Berkley Rd at Dixie Hwy	EBL	**200**	117	255
		EBT	**-**	164	264
		EBR	**200**	79	75
		WBL	**240**	127	123
		WBT	**-**	237	225
		NBL	**600**	200	238
		NBT	**-**	196	395
		SBL	**935**	70	58
		SBT	**-**	582	332
2	Pilaklakaha Ave at Ramsgate Rd	EBT	**-**	5	7
		WBT	**-**	3	4
		WBL	**-**	0	0
		NBL	**-**	0	0
3	US 92 (Magnolia Ave) at SR 559/Main St	EBL	**120**	82	#206
		EBT	**-**	283	452
		WBL	**80**	54	46
		WBT	**-**	345	#522
		NBL	**300**	198	133
		NBT	**-**	#285	257
		SBL	**150**	124	#195
		SBT	**-**	#253	#201
		SBR	**155**	4	14
4	SR 544/ Havendale Blvd at US 17	EBL	**400**	#326	#300
		EBT	**-**	573	616
		EBR	**-**	478	240
		WBL	**450**	#230	165
		WBT	**-**	#707	#664
		NBL	**320**	502	#707
		NBT	**-**	462	644
		SBL	**320**	534	374
		SBT	**-**	#839	#769
5	US 17 at W Haines Blvd	EBT	**-**	131	14
		EBR	**-**	1	0
		WBT	**-**	58	26
		SBT	**-**	1	1
6	US 17 at E Pomelo St	EBT	**-**	63	59
		EBR	**280**	#751	#678
		WBT	**-**	#476	#407
		SBT	**-**	174	158

7	US 27 at SR 544	EBL	**525**	242	228
		EBT	**-**	214	255
		EBR	**580**	60	29
		WBL	**600**	118	106
		WBT	**-**	278	226
		WBR	**390**	20	8
		NBL	**800**	#325	220
		NBT	**-**	#498	#519
		NBR	**860**	0	27
		SBL	**790**	168	190
		SBT	**-**	395	#543
		SBR	**880**	215	101
8	SR 17/ N 10th St at E Hinson Ave	EBL	**-**	26	29
		EBT	**-**	#377	#649
		EBR	**-**	0	14
		WBL	**600**	116	140
		WBT	**-**	#500	436
		NBL	**-**	112	145
		NBT	**-**	#279	327
		SBL	**175**	49	84
		SBT	**-**	#215	#414
9	US 17/ N 17th St at E Hinson Ave	EBL	**300**	m213	m242
		EBT	**-**	m89	m225
		WBL	**100**	11	10
		WBT	**-**	330	334
		NBT	**-**	47	101
		SBL	**-**	79	156
		SBT	**-**	31	111
		SBR	**250**	74	84

Note: #: 95th percentile volume exceeds capacity, queue may be longer.
m: Volume for 95th percentile queue is metered by an upstream signal.

The 95th percentile queues are longer than the turn-bay lengths and spillover to the adjacent thru lanes at the following locations.

- Berkley Road at Dixie Highway: Eastbound left-turn during PM peak hour.
- US 92 (Magnolia Avenue) at SR 559/Main Street: Eastbound and Southbound left-turns during PM peak hour.
- SR 544/ Havendale Boulevard at US 17: Northbound and Southbound left-turns during AM and PM peak hours.
- US 17 at East Pomelo Street: Eastbound right-turn during AM and PM peak hours.

2.5 Existing Year (2019) Multimodal Level of Service Analysis

The existing pedestrian and bicycle infrastructure was evaluated based on the latest FDOT 2023 Multimodal Q/LOS Handbook. The handbook introduced a way to quantify the level of discomfort while walking or cycling along a roadway. This Measure of Effectiveness (MOE) takes into account certain roadway design elements such as the posted speed along the roadway, traffic volume, existing bicycle lanes or sidewalks, sidewalk connectivity, and sidewalk separation. Both Pedestrian and Bicycle Level of Traffic Stress (LTS) is split into four categories with LTS 1 indicating a high level of comfort, suitable for all users especially those populations most vulnerable, and LTS 4 indicating the lowest level of comfort, most likely used only by those with limited route or mode choice.

The Pedestrian Level of Traffic Stress (PLTS) was analyzed along the study corridors and the analysis can be found in **Table 2-6.** Ten out of the 15 segments analyzed within the study area exhibited LTS 3 or 4. This high level of discomfort for pedestrians is caused by the high speeds along the roadway, lack of continuous sidewalks or sidewalk separation on some segments, and narrow sidewalk width.

The Bicycle Level of Traffic Stress (BLTS) analysis can be found in **Table 2-7** for the segments within the study area. Twelve out of the 15 segments analyzed have no bicycle facilities adjacent to the roadway. Twelve out of the 15 segments exhibited LTS 3 or 4. This high level of discomfort can be attributed to the combination of the high posted speeds and the volumes along the roadways. Three segments in the study area had bicycle facilities along or adjacent to the roadway, two of which exhibited LTS 1. The paved shoulder along Shinn Boulevard exhibited LTS 3 due to the lack of a buffer from the outside travel lane, and high volume along the roadway.

The supporting documentation for the Multimodal Level of Service based on the FDOT Q/LOS handbook can be found in **Appendix E**.

Table 2-6 – Existing Year (2019) Pedestrian Level of Traffic Stress Analysis

Segment	Limits	Continuous Sidewalk	Posted Speed (mph)	Sidewalk Width (ft)	Separation from Vehicular Travel Lane	Vertical Separation	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	This segment is not adjacent to a roadway.					
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	N	40	5	Y	N	LTS 4
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	Y	25	6-8	Y	Y	LTS 1
4	STADIUM RD MAIN ST TO OHIO ST	Y	45	5	Y	N	LTS 4
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	N	45	-	N	N	LTS 4
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	N	30	5	Y	N	LTS 4
7	SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	Y	35	5	Y	N	LTS 2
8	E POMELO ST SHINN BLVD/US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	Y	40	6	N	N	LTS 4
9	LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	N	35	5	Y	N	LTS 4
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	N	55	-	N	N	LTS 4
11	US 92/US 17 CENTURY DR TO W OF C ST	N	55	-	N	N	LTS 4
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH S	Y	35	5	N	N	LTS 4
13	N 6TH ST E HINSON AVE TO COURT AVE	Y	25	8	Y	Y	LTS 1
14	COURT AVE N 5TH ST TO N 6TH ST	Y	25	5	Y	N	LTS 2
15	N 5TH ST COURT AVE TO E MAIN ST	N	25	5	Y	N	LTS 4
16	PARK PL INGRAHAM AVE TO LILY AVE	Y	25	8	Y	Y	LTS 1

1) This analysis is conducted for each side of the road and the worst side PLTS is applied for each segment.
2) If the sidewalk width is less than or equal to 5 feet, the PLTS deteriorates by 1.
3) Separation is defined by space between the outside vehicular travel lane and sidewalk and can include bicycle lanes, unmarked shoulders, street furniture, vertical separation, landscaping, or utility strips. Vertical separation in the separation includes tubular markers, islands, on-street parking, rigid barriers, and landscaping.
4) Sidewalk space over 6 feet can be evaluated as part of the separation.
Source: FDOT 2023 Multimodal Q/LOS Handbook

Table 2-7 – Existing Year (2019) Bicycle Level of Traffic Stress Analysis

Segment	Limits	Posted Speed (mph)	Posted Speed ≥ 35 MPH	Travel Lanes ≥ 4 Lanes	AADT ≥ 3,000	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	This segment is not adjacent to a roadway.				
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	40	Y	N	Y	LTS 4
	PILAKLAKAHA AVE FROM ALBERTA AVE TO W PARK ST*	*Shared use path on south side of roadway.				LTS 1
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	25	N	N	Y	LTS 2
4	STADIUM RD MAIN ST TO OHIO ST	45	Y	N	Y	LTS 4
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	45	Y	N	Y	LTS 4
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	30	N	N	Y	LTS 2
7	SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	35	*Paved shoulder on roadway.			LTS 3
8	E POMELO ST SHINN BLVD./US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	25	N	N	Y	LTS 3
9	LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	35	Y	Y	Y	LTS 4
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	55	Y	Y	Y	LTS 4
11	US 92/US 17 CENTURY DR TO W OF C ST	55	Y	Y	Y	LTS 4
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH ST	35	Y	Y	Y	LTS 4
13	N 6TH ST E HINSON AVE TO COURT AVE	25	N	N	N	LTS 3
14	COURT AVE N 5TH ST TO N 6TH ST	25	N	N	N	LTS 3
15	N 5TH ST COURT AVE TO E MAIN ST	25	N	N	N	LTS 3
16	PARK PL INGRAHAM AVE TO LILY AVE	25	*Bicycle lane present on the north side of the roadway.			LTS 1

Source: FDOT 2023 Multimodal Q/LOS Handbook

**Analysis performed for roadway with facilities present.*

2.6 Crash Data and Safety Analysis

2.6.1 Crash History

Bicycle/pedestrian only crash data was taken from both CAR on-line and Signal Four Analytics during a five-year period from 2015 to 2019. For locations where the trail will run along the State Highway System (SHS), data was pulled from both CAR on-line and Signal Four Analytics. For locations where the trail will not run along the SHS, data was only pulled from Signal Four Analytics.

2.6.2 Crash Review by Year

A total of 18 bicycle and pedestrian collisions were reported along the entire trail from 2015 to 2019. Six (33%) of the collisions were involving a bicycle and 12 (67%) of the collisions were involving a pedestrian. Of the six bicycle crashes, there was one serious injury, four injury, and one property damage only crashes. Of the 12 pedestrian crashes, there was one fatal crash, two serious injury crashes, and nine injury crashes. The fatal crash occurred along US 17/US 92 at the intersection of Dyson Road. Due to lack of physical evidence, it could not be determined how the pedestrian was struck, however, the crash did occur during dark-not lighted conditions and the pedestrian was under the influence at the time of the crash. Of the total collisions, 12 (67%) were during nighttime and 2 (11%) were during wet weather. A breakdown of the crash year, severity, and type can be found in **Table 2-8**. The collision diagrams and summaries can be found in the Old Dixie Trail Bicycle/Pedestrian Safety Technical Memorandum provided in **Appendix F**.

Table 2-8 – Pedestrian and Bicycle Crash Severity (2015-2019)

Crash Type	Severity	2015	2016	2017	2018	2019	Total
Bicycle	Fatal	0	0	0	0	0	0
	Serious Injury	0	0	0	0	1	1
	Injury	1	1	1	0	1	4
	Property Damage Only	0	0	0	0	1	1
	Total	**1**	**1**	**1**	**0**	**3**	**6**
Pedestrian	Fatal	0	0	0	1	0	1
	Serious Injury	0	0	0	2	0	2
	Injury	2	0	3	0	4	9
	Property Damage Only	0	0	0	0	0	0
	Total	**2**	**0**	**3**	**3**	**4**	**12**

Figure 2-2 shows a crash summary of the pedestrian and bicycle crashes including crash severity, location, and lighting condition and **Figure 2-3** shows the contributing causes for the pedestrian and bicycle crashes.

Figure 2-2 – Pedestrian and Bicycle Crash Summary

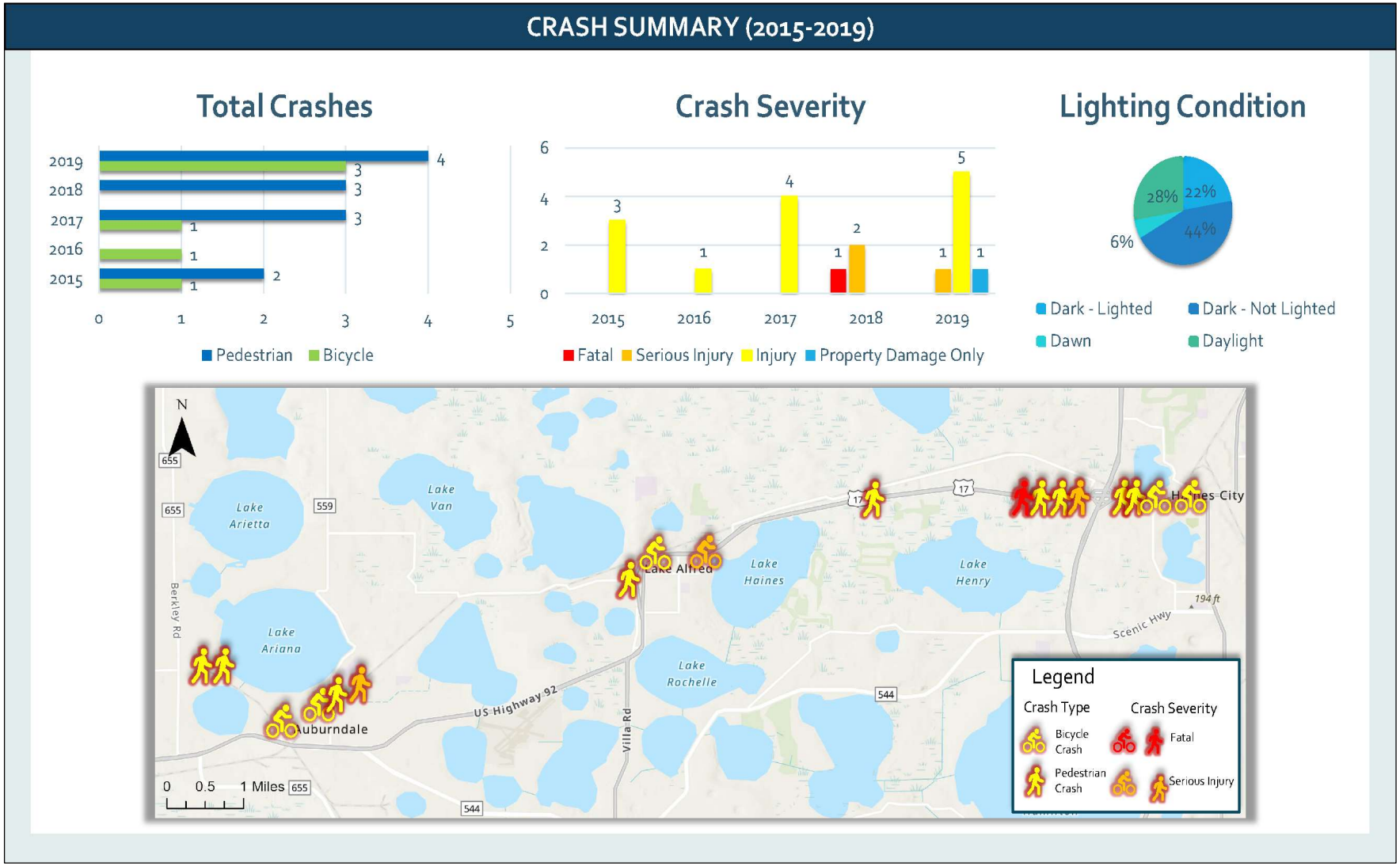
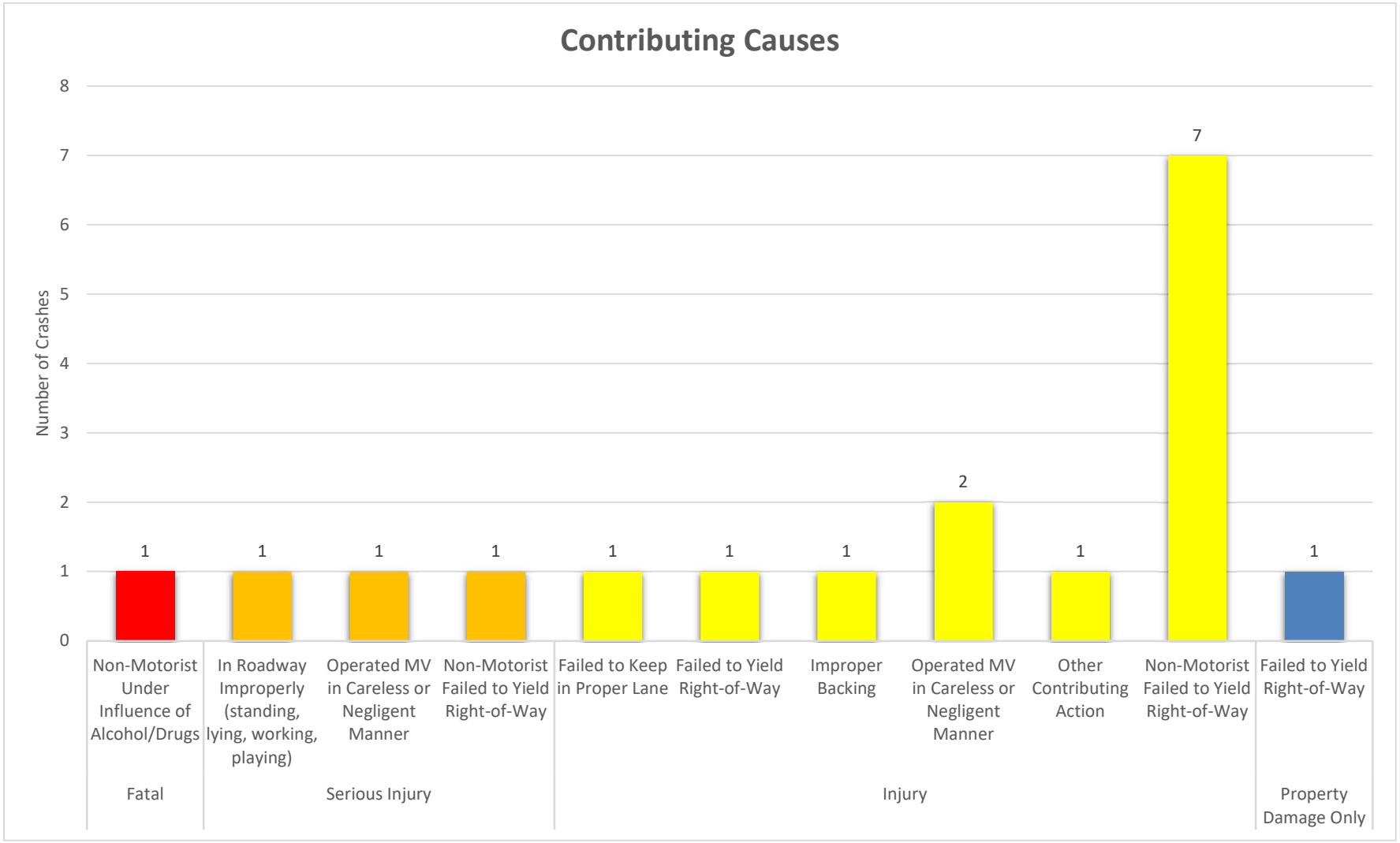


Figure 2-3 – Pedestrian and Bicycle Crash Contributing Causes (2015-2019)



2.6.3 Economic Loss from Pedestrian and Bicycle Crashes

FDOT's CAR System provides unit costs for calculating the cost of crashes and injuries. Based on these unit costs, the pedestrian and bicycle crashes from 2015 to 2019 cost an estimated $15,599,210 as shown in **Table 2-9**.

Table 2-9 – Estimated Economic Loss from Crashes along Study Corridor (2015-2019)

Crash Severity	No. of Crashes	Comprehensive Crash Cost	Economic Loss
Fatal	1	$10,890,000	$10,890,000
Severe Injury (Incapacitating)	3	$888,030	$2,664,090
Moderate Injury (Non-incapacitating)	9	$180,180	$1,621,620
Minor Injury (Possible Injury)	4	$103,950	$415,800
Property Damage Only	1	$7,700	$7,700
Total	**18**		**$15,599,210**

Source: Florida Department of Transportation State Safety Office's Crash Analysis Reporting (CAR) System, analysis years 2015 through 2019. Published by FDOT State Safety Office on 2/23/2022.

3 ALTERNATIVE ANALYSIS

3.1 No-Build Alternative

The No-Build Alternative assumes that the existing conditions would remain within the project limits through the Design Year (2050). However, the No-Build Alternative would not provide the support for the identified economic opportunities that the Old Dixie Trail would support. Also, the No-Build Alternative would not connect the Auburndale TECO and Haines City Trail micromobility transportation networks, causing non-motorized users to find less than ideal routes between Auburndale and Haines City.

3.2 Build Alternative

The preferred Build Alternative is an approximately 12-mile multi-use trail that begins in Auburndale and traverses along the north side of the study area and terminates in Haines City. Ten typical sections have been developed for the 10 segments of Old Dixie Trail. These typical sections depict the 10-12' multi-use trail connecting the Auburn TECO Trail with the Haines City trail at their respective trailheads.

The proposed typical sections were initially analyzed for this PD&E study with refinements to incorporate changes to the roadway buffer width requirements within the FDOT Design Manual (FDM), along with developing alternative sections to present to FDOT and Haines City for the 6th Street and Court Avenue corridors. The recommended typical sections were developed from the proposed typical sections and from discussions with FDOT and Haines City to incorporate their preferred alternative for the 6th Street corridor.

The Build Alternative segment limits along with the corresponding typical sections can be found in **Table 3-1** and the typical section package is included in **Appendix G**.

Table 3-1 – Preferred Build Alternative Segments

Segment	Typical Section	Length	Limits	Trail Width (ft)
1	1	0.44	Berkley Rd/Deen Blvd to Dixie Hwy/CSX RR	12'
2	2	0.95	Dixie Hwy/CSX RR to Ramsgate Rd/Pilaklakaha Ave	10'
3	3, 4	0.69	Pilaklakaha Ave /W Park St to Auburndale HS	10'

4	4	2.91	Auburndale HS to W Pierce St/CSX RR	10’
5	5	0.78	W Pierce St/CSX RR to W Pierce St/Shinn Blvd	10’
6	6, 7, 8	0.40	Shinn Blvd/W Haines Blvd to US 17/92/N/Rochelle Ave	10’
7	9	2.31	US 17/92/N Rochelle Ave to US 17/92/Century Dr	12’
8	9	3.42	US 17/92/Century Dr to US 17/92/McKay Dr	12’
9	10	0.66	US 17/92/McKay Dr to E Hinson Ave/N 6th St	10’
10	11, 12, 13, 14	0.25	E Hinson Ave/N 6th St to Haines City Trail	*8’-10

Note: Typical sections 11 and 12 within Segment 10 have 8’ sidewalks and sharrows.

3.3 Future Traffic Forecasting

3.3.1 Growth Rate Selection

An analysis was undertaken to determine the appropriate growth rate for the Old Dixie Trail study area. The growth rate analysis included a detailed assessment of historical traffic growth trends, travel demand model highway assignment growth (District One Regional Planning Model (D1RPM) v2.1 2015/2045), county-wide socio-economic growth (D1RPM 2015/2045) and population projection data from the Bureau of Economic and Business Research (BEBR). The 2015 and 2045 volumes from the D1RPM are shown in **Table 3-2**. The average growth rate for the study area based on the D1RPM v2.1 was 2.17%.

Table 3-2 – D1RPM v2.1 2015 and 2045 Volume Comparison

Description	D1RPM v2.1				
	2015	2045	Growth Rate	2015 Truck	2045 Truck
OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	7,741	15,377	3.29%	8%	5%
W PARK ST PILAKLAKAHA AVE TO MAIN ST	6,349	6,868	0.27%	7%	4%
STADIUM RD MAIN ST TO OHIO ST	4,774	6,523	1.22%	5%	5%
STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	7,967	14,619	2.78%	4%	4%

PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	6,711	13,351	3.30%	5%	4%
SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	16,440	24,888	1.71%	7%	5%
E POMELO ST SHINN BLVD./US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	8,545	15,814	2.84%	9%	4%
LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	9,286	18,899	3.45%	5%	5%
US 92/US 17 N ROCHELLE AVE TO CENTURY DR	20,531	42,364	3.54%	5%	5%
US 92/US 17 CENTURY DR TO W OF C ST	22,781	49,103	3.85%	5%	4%
E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH S	29,036	49,475	2.35%	4%	4%
N 6TH ST E HINSON AVE TO COURT AVE	4,134	4,813	0.55%	5%	4%
N 5TH ST COURT AVE TO E MAIN ST	8,612	10,312	0.66%	3%	3%
PARK PL INGRAHAM AVE TO LILY AVE	6,010	7,066	0.59%	5%	3%

Table 3-3 presents socio-economic estimates and projections for dwelling units (DU), populations and employment and the annual growth rate for Polk County based on the D1RPM v2.1. The trend analysis shows a growth rate between 2.05% and 2.18% within the study area. **Table 3-4** shows the trend analysis for the Annual Average Daily Traffic (AADT) from the FTO stations in the study area. This trend analysis compared the linear, exponential, and decaying exponential methodologies based on trends from ten years of historical data and exhibited growth rates from -2.72% to 5.32%. Based on the Project Forecasting Handbook, historical trends with r-squared values less than 75% were not considered in the growth rate analysis. The historic trend analysis worksheets can be seen in **Appendix H**.

Table 3-3 – D1RPM v2.1 Socio-Economic Estimates, Projection and Growth Rates

	Year	DU	POP	EMP
Polk County-Wide	**2015**	293,681	670,226	217,797
	2045	485,312	1,083,027	356,729
	Annual Growth	**2.18**	**2.05**	**2.13**

Table 3-4 – Traffic Trend Analysis Growth Rates

Description	FTO Location	FTO Description	10-Year Historic Trend Analysis					
			Linear	Linear R^2	Exponential	Exponential R^2	Decaying Exponential	Decaying Exponential R^2
OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	164629	RAMSGATE ROAD WEST OF PILAKLAKAHA AVE	2.06%	5.87%	-2.72%	10.86%	-0.12%	0.60%
STADIUM RD MAIN ST TO OHIO ST	164962	STADIUM ROAD, E OF BENNETT ST	2.40%	27.13%	2.70%	29.31%	0.53%	35.85%
STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	164923	LAKE ALFRED ROAD, W OF ADAMS BARN RD	4.14%	96.44%	4.93%	95.97%	0.66%	84.55%
SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	165264	SR600/US17/92, S OF HAINES BLVD - LK ALFRED	4.14%	93.33%	5.23%	93.27%	0.69%	80.44%
LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	165263	SR600/US17/92, N OF PIERCE ST - LK ALFRED	4.13%	93.19%	5.23%	92.55%	0.69%	82.24%
US 92/US 17 N ROCHELLE AVE TO CENTURY DR	160010	SR 600/US 17, 92 EAST OF EXPERIMENT STATION ROAD	3.72%	91.66%	4.47%	92.17%	0.60%	69.50%
US 92/US 17 CENTURY DR TO W OF C ST	160035	SR 600/US 17/92, WEST OF KENTUCKY AV HAINES CITY	3.68%	85.70%	4.36%	87.30%	0.56%	59.73%
E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH ST	165056	SR 600/US 17/92, WEST OF 9TH STREET HAINES CITY	4.01%	86.51%	5.32%	82.66%	0.72%	92.43%
N 5TH ST COURT AVE TO US 17 MAIN ST	164932	5TH STREET, N OF HINSON AVE	3.55%	89.29%	4.12%	89.22%	0.59%	77.98%

Population projections produced by the Bureau of Economic and Business Research (BEBR) were also analyzed. **Table 3-5** shows the BEBR population estimate and projects and the annual growth rate.

Table 3-5 – BEBR Population Estimates and Projections and Growth Rates

BEBR (Polk Countywide)	2019	2045	Growth
Low	690,606	748,800	0.32%
Medium	690,606	924,700	1.30%
High	690,606	1,089,600	2.22%

Based on a review of all the data sources, to provide a conservative estimate a recommended growth rate of 3% was used in the development of future traffic volumes for the study area. A table depicting the growth rate from each data source can be found in **Table 3-6**.

Table 3-6 – Recommended Growth Rate

Source	Growth
D1RPM v2.1 (2015-2045)	2.17%
D1RPM v2.1 Socioeconomic Data	2.12%
Historic Trends (FTO)	3.4%
BEBR (Medium/High)	1.76%
Recommended Growth Rate	**3%**

3.3.2 Future Traffic Volumes

Directional Design Hour Volumes (DDHV) were calculated by applying the linear growth rate of 3% to the Existing Year (2019) TMCs for the intersections as shown in the previous section to develop the Opening Year (2030) and the Design Year (2050) DDHVs. Additionally, future year AADTs were developed by applying the linear growth rate of 3% to the Existing Year (2019) AADTs.

The DDHVs for Opening Year (2030) and Design Year (2050) study intersections are shown in **Table 3-7** and **Table 3-8** and future year AADTs in **Table 3-9**.

Table 3-7 – Opening Year (2030) Peak Hour Volumes

No.	Intersection	Approach	AM Volume			PM Volume		
			LT	Thru	RT	LT	Thru	RT
1	Berkley Rd at Dixie Hwy	EB	90	113	306	280	184	297
		WB	99	167	43	101	150	61
		NB	282	455	119	352	838	132
		SB	115	871	375	73	604	115
2	Pilaklakaha Ave at Ramsgate Rd	EB	-	403	21	-	297	15
		WB	52	199	-	86	374	-
		NB	12	-	25	22	-	40
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	164	1,370	58	221	1,819	65
		WB	100	1,521	76	63	1,725	171
		NB	214	224	52	153	255	63
		SB	128	215	135	213	141	141
4	SR 544/ Havendale Blvd at US 17	EB	215	933	654	215	1,046	436
		WB	211	798	255	161	816	255
		NB	429	615	46	549	920	55
		SB	397	934	65	298	897	109
5	US 17 at W Haines Blvd	EB	-	155	21	-	30	7
		WB	63	52	-	65	40	-
		SB	22	2,023	22	26	2,124	17
6	US 17 at E Pomelo St	EB	-	142	1,107	-	127	1,060
		WB	3	827	-	12	749	-
		SB	7	1,236	83	8	1,137	86
7	US 27 at SR 544	EB	713	225	222	687	280	167
		WB	154	280	149	138	228	135
		NB	270	1,659	110	210	1,747	159
		SB	146	1,377	755	176	1,784	744
8	SR 17/ N 10th St at E Hinson Ave	EB	43	530	104	44	788	177
		WB	195	676	11	226	711	18
		NB	215	237	161	233	210	259
		SB	81	217	73	127	359	73
9	US 17/ N 17th St at E Hinson Ave	EB	501	276	10	489	477	12
		WB	10	473	155	6	375	152
		NB	21	29	4	46	59	11
		SB	98	28	447	179	130	504

Table 3-8 – Design Year (2050) Peak Hour Volumes

No.	Intersection	Approach	AM Volume			PM Volume		
			LT	Thru	RT	LT	Thru	RT
1	Berkley Rd at Dixie Hwy	EB	163	205	555	508	333	538
		WB	180	303	78	183	273	110
		NB	510	825	215	638	1,518	240
		SB	208	1,578	680	133	1,095	208
2	Pilaklakaha Ave at Ramsgate Rd	EB	-	730	38	-	538	28
		WB	95	360	-	155	678	-
		NB	23	-	45	40	-	73
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	298	2,483	105	400	3,295	118
		WB	183	2,755	138	116	3,125	310
		NB	388	405	95	278	463	115
		SB	233	390	245	385	255	255
4	SR 544/ Havendale Blvd at US 17	EB	390	1,690	1,185	390	1,895	790
		WB	383	1,445	463	293	1,478	463
		NB	778	1,115	83	995	1,668	100
		SB	721	1,693	118	540	1,625	198
5	US 17 at W Haines Blvd	EB	-	280	38	-	55	13
		WB	115	95	-	118	73	-
		SB	40	3,665	40	48	3,848	30
6	US 17 at E Pomelo St	EB	-	258	2,005	-	230	1,920
		WB	5	1,498	-	23	1,358	-
		SB	13	2,240	150	15	2,060	155
7	US 27 at SR 544	EB	1,293	408	403	1,245	508	303
		WB	281	508	270	250	413	245
		NB	488	3,005	200	380	3,165	288
		SB	265	2,495	1,368	320	3,233	1,348
8	SR 17/ N 10th St at E Hinson Ave	EB	78	960	188	80	1,428	320
		WB	353	1,225	20	410	1,288	33
		NB	390	430	293	423	380	470
		SB	148	393	133	230	650	133
9	US 17/ N 17th St at E Hinson Ave	EB	908	500	18	885	865	23
		WB	18	858	280	10	680	275
		NB	38	53	8	83	108	20
		SB	178	50	810	325	235	913

Table 3-9 – Opening Year (2030) and Design Year (2050) AADT

SEGMENT	Description	2030 AADT	2050 AADT
1	FORMER CSX RAILROAD BERKLEY RD. TO OLD DIXIE HWY	No Data Available	
2	OLD DIXIE HIGHWAY/RAMSGATE ROAD OLD DIXIE HWY. TO PILAKLAKAHA AVE.	5,100	7,300
3	W. PARK STREET PILAKLAKAHA AVE. TO MAIN ST	5,100	7,400
3	STADIUM ROAD MAIN ST. TO OHIO ST	4,300	6,200
4	STADIUM ROAD/OLD LAKE ALFRED ROAD OHIO ST. TO SOUTH OF CSX CROSSING	6,100	8,900
5	PIERCE STREET SOUTH OF CSX CROSSING TO SHINN BLVD	5,100	7,400
6	SHINN BOULEVARD/US 92/US 17 W. HAINES BLVD. TO POLEMO ST	24,600	35,700
6	POMELO STREET SHINN BLVD./US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	23,100	33,000
6	LAKE SHORE WAY /US 92/US 17 POMELO ST. TO N. ROCHELLE AVE	14,600	21,200
7	US 92/US 17 N. ROCHELLE AVE. TO CENTURY DR.	28,600	41,500
8	US 92/US 17 CENTURY DR. TO W. OF C ST	37,900	55,000
9	HINSON AVENUE/US 17 /US 92 W. OF C ST. TO N. 6TH ST	35,200	51,100
10	N. 6TH ST. E. HINSON AVE. TO COURT AVE	No Data Available	
10	COURT AVENUE N. 5TH ST. TO N 6TH ST	No Data Available	
10	N. 5TH ST COURT AVE. TO E. MAIN ST	1,300	1,800
10	PARK PLACE INGRAHAM AVE. TO LILY AVE	No Data Available	

3.4 Future Years Intersection Operational Analysis

3.4.1 Opening Year (2030) Traffic Measures of Effectiveness

The signalized and un-signalized intersections within the study area were analyzed for the Opening Year (2030) operating conditions. The acceptable intersection level of service target for the State Highway System during peak travel hours is LOS D. Synchro 11 was used to analyze all the signalized and un-signalized intersections within the study area for the Opening Year (2030) AM and PM peak hours. The procedures outlined in the Highway Capacity Manual (HCM) 2000 were used for the Synchro analysis. The intersection analysis results are summarized below in the **Table 3-10** and the Synchro reports are included in the **Appendix I**.

Table 3-10 – Opening Year (2030) Intersection Operational Analysis

No.	Intersection	Approach	AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Berkley Rd at Dixie Hwy	EB	51.1	D	53.8	D
		WB	54.5	D	60.4	E
		NB	148.9	F	88.7	F
		SB	61.4	E	37.8	D
	Overall Intersection		**83.6**	**F**	**64.9**	**E**
2	Pilaklakaha Ave at Ramsgate Rd	EB	0.0	A	0.0	A
		WB	1.8	A	1.5	A
		NB	15.3	C	15.1	C
	Overall Intersection		**1.4**	**A**	**2.0**	**A**
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	133.9	F	196.2	F
		WB	149.0	F	209.7	F
		NB	48.6	D	47.0	D
		SB	46.3	D	48.0	D
	Overall Intersection		**120.3**	**F**	**172.9**	**F**
4	SR 544/ Havendale Blvd at US 17	EB	162.4	F	198.4	F
		WB	282.6	F	224.1	F
		NB	148.8	F	279.4	F
		SB	114.1	F	96.6	F
	Overall Intersection		**174.9**	**F**	**202.3**	**F**
5	US 17 at W Haines Blvd	EB	623.7	F	70.3	F
		WB	*	F	60.7	F
		SB	0.1	A	0.1	A
	Overall Intersection		*****	**F**	**4.0**	**A**
6	US 17 at E Pomelo St	EB	129.5	F	105.9	F
		WB	23.2	C	20.6	C
		SB	144.3	F	78.6	E
	Overall Intersection		**109.4**	**F**	**74.9**	**E**

7	US 27 at SR 544	EB	298.4	F	203.6	F
		WB	48.0	D	45.3	D
		NB	60.3	E	60.6	E
		SB	72.8	E	65.8	E
	Overall Intersection		**109.4**	**F**	**86.7**	**F**
8	SR 17/ N 10th St at E Hinson Ave	EB	40.4	D	73.2	E
		WB	33.5	C	56.9	E
		NB	69.5	E	108.5	F
		SB	64.4	E	123.0	F
	Overall Intersection		**48.5**	**D**	**84.7**	**F**
9	US 17/ N 17th St at E Hinson Ave	EB	19.3	B	8.4	A
		WB	45.1	D	41.0	D
		NB	51.9	D	52.1	D
		SB	53.4	D	57.7	E
	Overall Intersection		**37.7**	**D**	**34.0**	**C**

Note: *Excessive delay could not be calculated.

The overall intersection delays range from 1.4 seconds/vehicle to 174.9 seconds/vehicle in the AM peak hour and from 2.0 seconds/vehicle to 202.3 seconds/vehicle in the PM peak hour. Note that at the intersection of US 17 and West Haines Boulevard for the AM peak hour, the delay for the westbound approach and overall intersection would be higher but could not be calculated by the software. This is mainly due to high traffic demand along the southbound approach of US 17, leading to insufficient number of gaps to accommodate peak hour demand volumes from the West Haines Boulevard westbound approach. Six out of the nine intersections experience excessive delays and operate at the LOS of 'E' and 'F' during the AM and PM peak hours, respectively. To improve intersection operations, capacity improvements would need to be implemented to accommodate peak hour demand volumes.

Further, 95th percentile vehicle queue lengths were also determined from the Synchro analysis as detailed in the **Table 3-11** and also included in **Appendix I**. The locations where the 95th percentile queue lengths exceed turn bays are highlighted in the table.

The 95th percentile queues are longer than the turn-bay lengths and spillover to the adjacent thru lanes at the following locations:

- Berkley Road at Dixie Highway: Eastbound and Northbound left-turn during PM peak hour.
- US 92 (Magnolia Avenue) at SR 559/Main Street: Eastbound, Westbound, and Southbound left-turns during AM and PM peak hour.
- SR 544/Havendale Boulevard at US 17: Eastbound, Northbound, and Southbound left-turns during AM and PM peak hours. Westbound left-turn during the AM peak hour.
- US 17 at East Pomelo Street: Eastbound right-turn during AM and PM peak hours.
- US 27 at SR 544: Eastbound left-turn during AM peak hour.
- SR 17/North 10th Street at East Hinson Avenue: Southbound left-turn during PM peak hour.
- US 17/North 17th Street at East Hinson Avenue: Eastbound left-turn during AM peak hour.

Table 3-11 – Opening Year (2030) Queue Lengths

No.	Intersection	Movement	Turn Bay Length (ft)	95th %tile Queue Length (ft)	
				AM Peak	PM Peak
1	Berkley Rd at Dixie Hwy	EBL	**200**	134	344
		EBT	**-**	193	357
		EBR	**200**	84	104
		WBL	**240**	144	162
		WBT	**-**	279	307
		NBL	**600**	#594	#675
		NBT	**-**	302	#708
		SBL	**935**	108	91
		SBT	**-**	#912	473
2	Pilaklakaha Ave at Ramsgate Rd	EBT	**-**	0	0
		WBT	**-**	0	0
		WBL	**-**	5	7
		NBL	**-**	10	15
3	US 92 (Magnolia Ave) at SR 559/Main St	EBL	**120**	#383	#466
		EBT	**-**	#860	#1049
		WBL	**80**	#206	#96
		WBT	**-**	#983	#1083
		NBL	**300**	276	185
		NBT	**-**	357	379
		SBL	**150**	169	238
		SBT	**-**	323	245
		SBR	**155**	64	57
4	SR 544/ Havendale Blvd at US 17	EBL	**400**	#479	#458
		EBT	**-**	#753	#830
		EBR	**-**	728	334
		WBL	**450**	#474	#329
		WBT	**-**	#886	#847
		NBL	**320**	#702	#974
		NBT	**-**	#637	#918
		SBL	**320**	#534	354
		SBT	**-**	#846	#776
5	US 17 at W Haines Blvd	EBT	**-**	402	41
		EBR	**-**	2	1
		WBT	**-**	*	93
		SBT	**-**	1	1

6	US 17 at E Pomelo St	EBT	-	82	66
		EBR	**280**	#1639	#1136
		WBT	-	762	542
		SBT	-	#682	#437
7	US 27 at SR 544	EBL	**525**	#606	#498
		EBT	-	265	321
		EBR	**580**	102	70
		WBL	**600**	153	138
		WBT	-	321	254
		WBR	**390**	56	41
		NBL	**800**	#496	#415
		NBT	-	#656	#701
		NBR	**860**	22	47
		SBL	**790**	#318	#370
		SBT	-	#549	#743
		SBR	**880**	#776	#659
8	SR 17/ N 10th St at E Hinson Ave	EBL	-	38	38
		EBT	-	594	#1046
		EBR	-	9	32
		WBL	**600**	m#134	m#350
		WBT	-	#837	#738
		NBL	-	#275	#375
		NBT	-	#530	#647
		SBL	**175**	#97	#191
		SBT	-	#402	#670
9	US 17/ N 17th St at E Hinson Ave	EBL	**300**	m#518	m155
		EBT	-	m69	m107
		WBL	**100**	18	14
		WBT	-	#833	#658
		NBT	-	79	161
		SBL	-	138	#289
		SBT	-	49	172
		SBR	**250**	107	113

Note: #: 95th percentile volume exceeds capacity, queue may be longer.
m: Volume for 95th percentile queue is metered by an upstream signal.
**Due to excessive delay, queue could not be calculated by software.*

3.4.2 Design Year (2050) Traffic Measures of Effectiveness

The signalized and un-signalized intersections within the study area were analyzed for the Design Year (2050) operating conditions. The acceptable intersection level of service target for the State Highway System during peak travel hours is LOS D. Synchro 11 was used to analyze all the signalized and un-signalized intersections within the study area for the Design Year (2050) AM and PM peak hours. The procedures outlined in the Highway Capacity Manual (HCM) 2000 were used for the Synchro analysis. The intersection analysis results are summarized below in the **Table 3-12** and the Synchro reports are included in the **Appendix J**.

Table 3-12 – Design Year (2050) Intersection Operational Analysis

No.	Intersection	Approach	AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Berkley Rd at Dixie Hwy	EB	101.8	F	150.1	F
		WB	101.6	F	103.7	F
		NB	303.0	F	504.6	F
		SB	930.2	F	372.9	F
	Overall Intersection		**529.9**	**F**	**348.0**	**F**
2	Pilaklakaha Ave at Ramsgate Rd	EB	0.0	A	0.0	A
		WB	2.3	A	1.8	A
		NB	51.5	F	81.7	F
	Overall Intersection		**3.5**	**A**	**7.0**	**A**
3	US 92 (Magnolia Ave) at SR 559/Main St	EB	226.3	F	478.9	F
		WB	340.8	F	635.5	F
		NB	439.2	F	156.2	F
		SB	261.6	F	278.8	F
	Overall Intersection		**300.4**	**F**	**489.9**	**F**
4	SR 544/ Havendale Blvd at US 17	EB	423.3	F	423.6	F
		WB	724.7	F	643.0	F
		NB	360.1	F	583.8	F
		SB	774.3	F	694.6	F
	Overall Intersection		**567.8**	**F**	**574.4**	**F**
5	US 17 at W Haines Blvd	EB	8810.6	F	8144.0	F
		WB	*	F	*	F
		SB	0.2	A	0.2	A
	Overall Intersection		*	**F**	*	**F**
6	US 17 at E Pomelo St	EB	1005.7	F	852.8	F
		WB	564.1	F	471.7	F
		SB	202.4	F	158.3	F
	Overall Intersection		**585.1**	**F**	**492.7**	**F**

7	US 27 at SR 544	EB	416.9	F	399.0	F
		WB	179.5	F	112.2	F
		NB	585.4	F	581.9	F
		SB	587.1	F	693.4	F
	Overall Intersection		**514.7**	**F**	**560.0**	**F**
8	SR 17/ N 10th St at E Hinson Ave	EB	423.3	F	495.0	F
		WB	563.0	F	388.4	F
		NB	389.6	F	389.0	F
		SB	342.0	F	540.7	F
	Overall Intersection		**451.7**	**F**	**448.3**	**F**
9	US 17/ N 17th St at E Hinson Ave	EB	449.9	F	226.1	F
		WB	369.4	F	418.8	F
		NB	31.4	C	55.1	E
		SB	351.5	F	191.8	F
	Overall Intersection		**386.5**	**F**	**248.6**	**F**

Note: *Excessive delay could not be calculated

The overall intersection delays range from 3.5 seconds/vehicle to 585.1 seconds/vehicle in the AM peak hour and from 7.0 seconds/vehicle to 574.4 seconds/vehicle in the PM peak hour. Note that at the intersection of US 17 and West Haines Boulevard for the AM and PM peak hour, the delay for the westbound approach and overall intersection would be higher but could not be calculated by the software. This is mainly due to high traffic demand along the southbound approach of US 17, leading to insufficient number of gaps to accommodate peak hour demand volumes from the West Haines Boulevard westbound approach. Eight out of the nine intersections experience excessive delays and operate at the LOS of 'E' and 'F' during the AM and PM peak hours, respectively. To improve intersection operations, capacity improvements would need to be implemented to accommodate peak hour demand volumes.

Further, 95th percentile vehicle queue lengths were also determined from the Synchro analysis as detailed in the **Table 3-13** and also included in **Appendix J**. The locations where the 95th percentile queue lengths exceed turn bays are highlighted in the table.

The 95th percentile queues are longer than the turn-bay lengths and spillover to the adjacent thru lanes at the following locations.

- Berkley Road at Dixie Highway: Eastbound, Westbound, and Northbound left-turn during AM and PM peak hours. Eastbound right-turn during AM and PM peak hours.
- US 92 (Magnolia Avenue) at SR 559/Main Street: Eastbound, Westbound, Northbound, and Southbound left-turns during AM and PM peak hours. Southbound right-turn during AM and PM peak hours.
- SR 544/Havendale Boulevard at US 17: Eastbound, Westbound, Northbound, and Southbound left-turns during AM and PM peak hours.

- US 17 at East Pomelo Street: Eastbound right-turn during AM and PM peak hours.
- US 27 at SR 544: Eastbound left-turn during AM and PM peak hours. Northbound left-turn during AM peak hour. Southbound right-turn during AM and PM peak hours.
- SR 17/North 10th Street at East Hinson Avenue: Southbound left-turn during PM peak hour.
- US 17/North 17th Street at East Hinson Avenue: Eastbound left-turn during AM and PM peak hours. Southbound right-turn during AM and PM peak hours.

Table 3-13 – Design Year (2050) Queue Lengths

No.	Intersection	Movement	Turn Bay Length (ft)	95th %tile Queue Length (ft)	
				AM Peak	PM Peak
1	Berkley Rd at Dixie Hwy	EBL	**200**	301	#1022
		EBT	**-**	452	#1064
		EBR	**200**	#644	#895
		WBL	**240**	351	349
		WBT	**-**	#849	#824
		NBL	**600**	#1465	#1864
		NBT	**-**	#1313	#2397
		SBL	**935**	385	239
		SBT	**-**	#3382	#1714
2	Pilaklakaha Ave at Ramsgate Rd	EBT	**-**	0	0
		WBT	**-**	0	0
		WBL	**-**	16	7
		NBL	**-**	69	15
3	US 92 (Magnolia Ave) at SR 559/Main St	EBL	**120**	#470	#698
		EBT	**-**	#1157	#1789
		WBL	**80**	#292	#176
		WBT	**-**	#1389	#1892
		NBL	**300**	#653	318
		NBT	**-**	#873	#884
		SBL	**150**	#354	#620
		SBT	**-**	#768	#633
		SBR	**155**	#180	#197
4	SR 544/ Havendale Blvd at US 17	EBL	**400**	#1126	#1058
		EBT	**-**	#2146	#2305
		EBR	**-**	#2530	1094
		WBL	**450**	#1152	#811
		WBT	**-**	#2543	#2434
		NBL	**320**	#1779	#2465
		NBT	**-**	#1704	#2423
		SBL	**320**	#1895	#1256

		SBT	-	#2729	#2560
5	US 17 at W Haines Blvd	EBT	-	*	41
		EBR	-	5	1
		WBT	-	*	93
		SBT	-	2	1
6	US 17 at E Pomelo St	EBT	-	150	142
		EBR	**280**	#2137	#1996
		WBT	-	#1507	#1352
		SBT	-	#715	#638
7	US 27 at SR 544	EBL	**525**	#1176	#1102
		EBT	-	#737	#928
		EBR	**580**	#388	183
		WBL	**600**	#408	#325
		WBT	-	#937	#711
		WBR	**390**	160	107
		NBL	**800**	#995	#738
		NBT	-	#1860	#1929
		NBR	**860**	62	72
		SBL	**790**	#529	#637
		SBT	-	#1496	#1983
		SBR	**880**	#2207	#2075
8	SR 17/ N 10th St at E Hinson Ave	EBL	-	52	63
		EBT	-	#1199	#2100
		EBR	-	65	172
		WBL	**600**	m#145	m#254
		WBT	-	m#748	m#1019
		NBL	-	#454	#605
		NBT	-	#928	#1248
		SBL	**175**	106	#328
		SBT	-	#701	#1260
9	US 17/ N 17th St at E Hinson Ave	EBL	**300**	m#389	m324
		EBT	-	m109	m266
		WBL	**100**	21	20
		WBT	-	#1300	#1417
		NBT	-	97	#287
		SBL	-	#210	#511
		SBT	-	57	241
		SBR	**250**	#730	#841

Note: #: 95th percentile volume exceeds capacity, queue may be longer.
m: Volume for 95th percentile queue is metered by an upstream signal.
**Due to excessive delay, queue could not be calculated by software.*

3.5 Future Years Multimodal Level of Service Analysis

3.5.1 Opening Year (2030) and Design Year (2050) No-Build Alternative

The No-Build Alternative assumes that the existing lane geometry would remain within the project limits. The No-Build Alternative pedestrian and bicycle infrastructure was evaluated based on the latest FDOT 2023 Multimodal Q/LOS Handbook. The handbook introduced a way to quantify the level of discomfort while walking or cycling along a roadway. This Measure of Effectiveness (MOE) takes into account certain roadway design elements such as the posted speed along the roadway, traffic volume, existing bicycle lanes or sidewalks, sidewalk connectivity, and sidewalk separation. Both Pedestrian and Bicycle Level of Traffic Stress (LTS) is split into four categories with LTS 1 indicating a high level of comfort, suitable for all users especially those populations most vulnerable, and LTS 4 indicating the lowest level of comfort, most likely used only by those with limited route or mode choice.

The Pedestrian Level of Traffic Stress (PLTS) was analyzed along the study corridors and the analysis can be found in **Table 3-14.** Ten out of the 15 segments analyzed within the study area exhibited LTS 3 or 4. This high level of discomfort for pedestrians is caused by the high speeds along the roadway, lack of continuous sidewalks or sidewalk separation on some segments, and narrow sidewalk width.

The Bicycle Level of Traffic Stress (BLTS) analysis can be found in **Table 3-15** for the segments within the study area. Twelve out of the 15 segments analyzed have no bicycle facilities adjacent to the roadway. Twelve out of the 15 segments exhibited LTS 3 or 4. This high level of discomfort can be attributed to the combination of the high posted speeds and the volumes along the roadways. Three segments in the study area had bicycle facilities along or adjacent to the roadway, two of which exhibited LTS 1. The paved shoulder along Shinn Boulevard exhibited LTS 3 due to the lack of a buffer from the outside travel lane, and high volume along the roadway.

The supporting documentation for the Multimodal Level of Service based on the FDOT Q/LOS handbook can be found in **Appendix E**.

Table 3-14 – No-Build Alternative Pedestrian Level of Traffic Stress Analysis

Segment	Limits	Continuous Sidewalk	Posted Speed (mph)	Sidewalk Width (ft)	Separation from Vehicular Travel Lane	Vertical Separation	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	This segment is not adjacent to a roadway.					
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	N	40	5	Y	N	LTS 4
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	Y	25	6-8	Y	Y	LTS 1
4	STADIUM RD MAIN ST TO OHIO ST	Y	45	5	Y	N	LTS 4
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	N	45	-	N	N	LTS 4
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	N	30	5	Y	N	LTS 4
7	SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	Y	35	5	Y	N	LTS 2
8	E POMELO ST SHINN BLVD/US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	Y	40	6	N	N	LTS 4
9	LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	N	35	5	Y	N	LTS 4
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	N	55	-	N	N	LTS 4
11	US 92/US 17 CENTURY DR TO W OF C ST	N	55	-	N	N	LTS 4
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH S	Y	35	5	N	N	LTS 4
13	N 6TH ST E HINSON AVE TO COURT AVE	Y	25	8	Y	Y	LTS 1
14	COURT AVE N 5TH ST TO N 6TH ST	Y	25	5	Y	N	LTS 2
15	N 5TH ST COURT AVE TO E MAIN ST	N	25	5	Y	N	LTS 4
16	PARK PL INGRAHAM AVE TO LILY AVE	Y	25	8	Y	Y	LTS 1

1) This analysis is conducted for each side of the road and the worst side PLTS is applied for each segment.
2) If the sidewalk width is less than or equal to 5 feet, the PLTS deteriorates by 1.
3) Separation is defined by space between the outside vehicular travel lane and sidewalk and can include bicycle lanes, unmarked shoulders, street furniture, vertical separation, landscaping, or utility strips. Vertical separation in the separation includes tubular markers, islands, on-street parking, rigid barriers, and landscaping.
4) Sidewalk space over 6 feet can be evaluated as part of the separation.
Source: FDOT 2023 Multimodal Q/LOS Handbook

Table 3-15 – No-Build Alternative Bicycle Level of Traffic Stress Analysis

Segment	Limits	Posted Speed (mph)	Posted Speed ≥ 35 MPH	Travel Lanes ≥ 4 Lanes	AADT ≥ 3,000	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	This segment is not adjacent to a roadway.				
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	40	Y	N	Y	LTS 4
	PILAKLAKAHA AVE FROM ALBERTA AVE TO W PARK ST*	*Shared use path on south side of roadway.				LTS 1
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	25	N	N	Y	LTS 2
4	STADIUM RD MAIN ST TO OHIO ST	45	Y	N	Y	LTS 4
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	45	Y	N	Y	LTS 4
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	30	N	N	Y	LTS 2
7	SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	35	*Paved shoulder on roadway.			LTS 3
8	E POMELO ST SHINN BLVD/US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	25	N	N	Y	LTS 3
9	LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	35	Y	Y	Y	LTS 4
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	55	Y	Y	Y	LTS 4
11	US 92/US 17 CENTURY DR TO W OF C ST	55	Y	Y	Y	LTS 4
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH ST	35	Y	Y	Y	LTS 4
13	N 6TH ST E HINSON AVE TO COURT AVE	25	N	N	N	LTS 3
14	COURT AVE N 5TH ST TO N 6TH ST	25	N	N	N	LTS 3
15	N 5TH ST COURT AVE TO E MAIN ST	25	N	N	N	LTS 3
16	PARK PL INGRAHAM AVE TO LILY AVE	*Bicycle lane present on the north side of the roadway.				LTS 1

Source: FDOT 2023 Multimodal Q/LOS Handbook

**Analysis performed for roadway with facilities present.*

3.5.2 Opening Year (2030) and Design Year (2050) Build Alternative

The Build Alternative is an approximately 12-mile multi-use trail that begins in Auburndale and traverses along the north side of the study area and terminates in Haines City. The proposed Build Alternative pedestrian and bicycle infrastructure was evaluated based on the latest FDOT 2023 Multimodal Q/LOS Handbook. The handbook introduced a way to quantify the level of discomfort while walking or cycling along a roadway. This Measure of Effectiveness (MOE) takes into account certain roadway design elements such as the posted speed along the roadway, traffic volume, existing bicycle lanes or sidewalks, sidewalk connectivity, and sidewalk separation. Both Pedestrian and Bicycle Level of Traffic Stress (LTS) is split into four categories with LTS 1 indicating a high level of comfort, suitable for all users especially those populations most vulnerable, and LTS 4 indicating the lowest level of comfort, most likely used only by those with limited route or mode choice.

The Pedestrian Level of Traffic Stress (PLTS) was analyzed along the study corridors and the analysis can be found in **Table 3-16.** All 16 segments analyzed within the study area exhibited LTS 1 or 2. This level of comfort is suitable for all users as the Build Alternative will minimize conflicts between non-motorized travel modes and vehicles, creating safer travel conditions for both trail users and vehicular traffic on area roadways.

The Bicycle Level of Traffic Stress (BLTS) analysis can be found in **Table 3-17** for the segments within the study area. Fourteen out of the 16 segments analyzed exhibited LTS 1 in the Build Alternative, due to the addition of a separated multi-use trail facility. The two segments located on North 6th Street and Court Avenue exhibited LTS 3 due to sharrows being present on these segments and lack of a separated facility, however, the Build Alternative adds an 8-foot sidewalk on these segments that is not present in the No-Build Alternative.

The supporting documentation for the Multimodal Level of Service based on the FDOT Q/LOS handbook can be found in **Appendix E**.

Table 3-16 – Build Alternative Pedestrian Level of Traffic Stress Analysis

Segment	Limits	Continuous Sidewalk	Posted Speed (mph)	Sidewalk Width (ft)	Separation from Vehicular Travel Lane	Vertical Separation	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	Y	-	12	-	-	LTS 1
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	Y	40	10	Y	Y	LTS 2
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	Y	25	10	Y	Y	LTS 1
4	STADIUM RD MAIN ST TO OHIO ST	Y	45	10	Y	Y	LTS 2
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	Y	45	10	Y	Y	LTS 2
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	Y	30	10	Y	Y	LTS 1
7	SHINN BLVD/US 92/US 17 W HAINES BLVD. TO E POLEMO ST	Y	35	10	Y	Y	LTS 1
8	E POMELO ST SHINN BLVD/US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	Y	25	10	Y	Y	LTS 1
9	LAKE SHORE WAY /US 92/US 17 POMELO ST TO N ROCHELLE AVE	Y	35	10	Y	Y	LTS 1
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	Y	55	12	Y	Y	LTS 2
11	US 92/US 17 CENTURY DR TO W OF C ST	Y	55	12	Y	Y	LTS 2
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH ST	Y	35	10	Y	Y	LTS 1
13	N 6TH ST E HINSON AVE TO COURT AVE	Y	25	8	Y	N	LTS 1
14	COURT AVE N 5TH ST TO N 6TH ST	Y	25	8	Y	N	LTS 1
15	N 5TH ST COURT AVE TO E MAIN ST	Y	25	10	Y	Y	LTS 1
16	PARK PL INGRAHAM AVE TO LILY AVE	Y	25	10	Y	Y	LTS 1

1) This analysis is conducted for each side of the road and the worst side PLTS is applied for each segment.
2) If the sidewalk width is less than or equal to 5 feet, the PLTS deteriorates by 1.
3) Separation is defined by space between the outside vehicular travel lane and sidewalk and can include bicycle lanes, unmarked shoulders, street furniture, vertical separation, landscaping, or utility strips. Vertical separation in the separation includes tubular markers, islands, on-street parking, rigid barriers, and landscaping.
4) Sidewalk space over 6 feet can be evaluated as part of the separation.
Source: FDOT 2023 Multimodal Q/LOS Handbook

Table 3-17 – Build Alternative Bicycle Level of Traffic Stress Analysis

Segment	Limits	Separated Bicycle Lane, Shared Use Path, or Urban Side Path is Present?	Sharrow Present?	Level of Traffic Stress
1	FORMER CSX RAILROAD BERKLEY RD TO OLD DIXIE HWY	Y	N	LTS 1
2	OLD DIXIE HWY/RAMSGATE RD OLD DIXIE HWY TO PILAKLAKAHA AVE	Y	N	LTS 1
	PILAKLAKAHA AVE FROM ALBERTA AVE TO W PARK ST	Y	N	LTS 1
3	W PARK ST PILAKLAKAHA AVE TO MAIN ST	Y	N	LTS 1
4	STADIUM RD MAIN ST TO OHIO ST	Y	N	LTS 1
5	STADIUM RD/OLD LAKE ALFRED RD OHIO ST TO SOUTH OF CSX CROSSING	Y	N	LTS 1
6	PIERCE ST SOUTH OF CSX CROSSING TO SHINN BLVD	Y	N	LTS 1
7	SHINN BLVD/US 92/US 17 W HAINES BLVD TO E POLEMO ST	Y	N	LTS 1
8	E POMELO ST SHINN BLVD/US 92/US 17 TO LAKE SHORE WAY /US 92/US 17	Y	N	LTS 1
9	LAKE SHORE WAY /US 92/US 17 E POMELO ST TO N ROCHELLE AVE	Y	N	LTS 1
10	US 92/US 17 N ROCHELLE AVE TO CENTURY DR	Y	N	LTS 1
11	US 92/US 17 CENTURY DR TO W OF C ST	Y	N	LTS 1
12	E HINSON AVE/US 17 /US 92 W OF C ST TO N 6TH ST	Y	N	LTS 1
13	N 6TH ST E HINSON AVE TO COURT AVE	N	Y	LTS 3
14	COURT AVE N 5TH ST TO N 6TH ST	N	Y	LTS 3
15	N 5TH ST COURT AVE TO E MAIN ST	Y	N	LTS 1
16	PARK PL INGRAHAM AVE TO LILY AVE	Y	N	LTS 1

Source: FDOT 2023 Multimodal Q/LOS Handbook

4 CRASH MODIFICATION FACTOR REVIEW

The goal of the Build Alternative is to provide a shared-use facility separated from area roadways to minimize conflicts between non-motorized travel modes and vehicles, creating safer travel conditions for both trail users and vehicular traffic on area roadways. In addition to the shared-use facility, additional safety enhancements should be implemented in the form of safety countermeasures to provide increased safety for bicyclists, pedestrians, and all forms of nonmotorized travel. To evaluate the potential safety improvements along Old Dixie Trail, as well as at study intersections in the Build Alternative, a literature review was performed to see the safety benefit from implementing a shared-use path, and crash modification factors for safety countermeasures were utilized from the Crash Modification Factors (CMF) Clearinghouse (Source: http://www.cmfclearinghouse.org/) and from pedestrian and bicycle safety studies provided by the Federal Highway Administration (FHWA). A CMF is a multiplicative factor that indicates the proportion of crashes that would be expected after implementing a countermeasure.

Based on the study, “Evaluation of Bicycle-Related Roadway Measures” from FHWA, riding on shared-use paths were found to reduce injury risk for adults by 86 percent and 88 percent for children, as compared to riding in the street. Also, riders on shared-use paths were associated with a 40 percent reduction in the risk of falling as compared to riding on roadways. It could be concluded from this study that providing separated infrastructure, such as a shared-use path/trail, will provide a benefit in terms of a reduction in injury related crashes.

Enhanced safety at trail crossings at the study intersections is also crucial to provide safer travel conditions for both trail users and vehicular traffic. Two countermeasures that could be implemented at designated crossings at the study intersections are the implementation of a leading pedestrian interval (LPI) as well as the installation of pedestrian countdown timers at all crosswalk locations. Implementing an LPI at a crossing can help pedestrians get a head start (typically 3 to 7 seconds) and allow them to get through conflict areas before vehicles are allowed to enter the intersection. It can also help to increase visibility of pedestrians in the intersection and allow them to establish their right-of-way within the intersection. The implementation of an LPI could provide a 19% reduction in vehicle/pedestrian crashes. Another countermeasure that can be implemented at crossings is the installation of pedestrian countdown timers. These timers provide a visual cue to both the pedestrians and drivers of how long they have to cross the intersection and can help pedestrians judge whether they have sufficient time to cross. The installation of pedestrian countdown timers can provide an 8.8% reduction in vehicle/pedestrian crashes.

Other countermeasures that could provide increased safety at crossing locations are installing Rectangular Rapid Flashing Beacons (RRFB) and Pedestrian Hybrid Beacons (PHB or HAWK) at unsignalized and midblock crossings. RRFBs are used to supplement an existing warning sign at an unsignalized crossing location, and are pedestrian activated. These signs provide an irregular flashing pattern to enhance visibility, but do not assign right of way. Studies have shown an increase in the yield rate of vehicles to pedestrians from 2% pretreatment to 84% after the installation of an RRFB. A PHB

is a traffic control signal that is also implemented at uncontrolled intersections and midblock crossing locations. These beacons are pedestrian activated and will activate a red light to vehicles when a crossing is made. Studies have shown that yield rates following the installation of a PHB were 97%. RRFBs can provide a 47% reduction in vehicle/pedestrian crashes while PHBs can provide a 57% reduction in vehicle/pedestrian crashes. Installing advanced yield or stop markings and signs at crossing locations can also provide a safety benefit and could provide a 25% reduction in vehicle/pedestrian crashes.

Another countermeasure that can provide a benefit to all crash types, is the installation of signal backplates with reflective borders on traffic signals. Backplates added to a signal helps to improve visibility of the illuminated face of the signal by introducing a contrasted background. The reflective border allows the backplate to provide increased visibility in both daytime and nighttime conditions. Installation of backplates with reflective borders could provide a 15% reduction in all crashes at a location.

A list of the potential countermeasures along with the potential crash reduction and crash types affected can be found in **Table 4-1**. The literature review and data from the CMF Clearinghouse is provided in **Appendix K**.

Table 4-1 – List of Potential Countermeasures at Crossing Locations

CMF Description	CMF	CRF (%)	Crash Type Affected	Source
Modify Signal Phasing (Implement a Leading Pedestrian Interval)	0.81	19.0%	Vehicle/Pedestrian Crashes	CMF Clearinghouse (ID: 9903)
Install Pedestrian Countdown Timer	0.912	8.8%	Vehicle/Pedestrian Crashes	CMF Clearinghouse (ID: 10119)
Install Rectangular Rapid Flashing Beacon (RRFB)	0.526	47.4%	Vehicle/Pedestrian Crashes	CMF Clearinghouse (ID: 9024)
Install Pedestrian Hybrid Beacon (PHB or HAWK) with Advanced Yield or Stop Markings and Signs	0.432	56.8%	Vehicle/Pedestrian Crashes	CMF Clearinghouse (ID: 9021)
Install Advanced Yield or Stop Markings and Signs	0.75	25.0%	Vehicle/Pedestrian Crashes	CMF Clearinghouse (ID: 9017)
Add 3-Inch Yellow Retroreflective Sheeting to Signal Backplates	0.85	15.0%	All Crash Types	CMF Clearinghouse (ID: 1410)

5 SUMMARY OF ANALYSIS RESULTS

5.1 Summary of Operations Analysis

This study documents the Existing Year (2019), Opening Year (2030), and Design Year (2050) traffic and multimodal analysis. Due to the multi-use trail being a separated facility, no roadway or intersection improvements were evaluated as part of this study.

The signalized and un-signalized intersections within the study area were analyzed for the Existing Year (2019), Opening Year (2030), and Design Year (2050) operating conditions. Synchro 11 was used to analyze all the signalized and un-signalized intersections within the study and the procedures outlined in the Highway Capacity Manual (HCM) 2000 were used for the Synchro analysis. In the Existing Year (2019) analysis, the overall intersection delays range from 1.3 seconds/vehicle to 76.7 seconds/vehicle in the AM peak hour and from 1.7 seconds/vehicle to 81.9 seconds/vehicle in the PM peak hour. Two out of the nine intersections experience excessive delays and operate at the LOS of 'E' and 'F' during the AM and PM peak hours, respectively.

In the Opening Year (2030) analysis, the overall intersection delays range from 1.4 seconds/vehicle to 174.9 seconds/vehicle in the AM peak hour and from 2.0 seconds/vehicle to 202.3 seconds/vehicle in the PM peak hour. Six out of the nine intersections experience excessive delays and operate at the LOS of 'E' and 'F' during the AM and PM peak hours, respectively. For the Design Year (2050) analysis, the overall intersection delays range from 3.5 seconds/vehicle to 585.1 seconds/vehicle in the AM peak hour and from 7.0 seconds/vehicle to 574.4 seconds/vehicle in the PM peak hour. Eight out of the nine intersections experience excessive delays and operate at the LOS of 'E' and 'F' during the AM and PM peak hours, respectively. To improve intersection operations for the future years, capacity improvements would need to be implemented to accommodate peak hour demand volumes.

A multimodal level of service analysis was done to compare the No-Build and Build Alternatives. The No-Build Alternative assumes that the existing lane geometry would remain within the project limits through the Design Year (2050). The No-Build Alternative pedestrian and bicycle infrastructure was evaluated based on the latest FDOT 2023 Multimodal Q/LOS Handbook. Both Pedestrian and Bicycle Level of Traffic Stress (LTS) is split into four categories with LTS 1 indicating a high level of comfort, suitable for all users especially those populations most vulnerable, and LTS 4 indicating the lowest level of comfort, most likely used only by those with limited route or mode choice. It was found for the No-Build Alternative Pedestrian and Bicycle Level of Traffic Stress (LTS) that ten out of the 15 segments analyzed within the study area exhibited pedestrian LTS 3 or 4, and 12 out of the 15 segments exhibited bicycle LTS 3 or 4, respectively. The Build Alternative incorporated the approximately 12-mile multi-use trail facility along the study roadways. All 16 segments analyzed within the study area exhibited pedestrian LTS 1 or 2, and 14 out of the 16 segments analyzed exhibited bicycle LTS 1. Two segments located on North 6th Street and Court Avenue exhibited LTS 3 due to sharrows being present on these segments and lack of a separated facility, however, the Build Alternative adds an 8-foot sidewalk on

these segments that is not present in the No-Build Alternative.

5.2 Summary of Safety Analysis

One of the goals of the project is to provide safe multimodal access to destinations and to link the communities of Auburndale and Haines City to each other [including each community's respective amenities] through trailheads, as well as connect the two communities to the region's schools, parks, cultural resources, employment centers, recreational facilities, conservation viewsheds, and other area destinations. A safety review was undertaken to assess the existing conditions as well as provide insight into the potential benefits of the Build Alternative. The Build Alternative is expected to provide a facility separated from area roadways to minimize conflicts between non-motorized travel modes and vehicles, creating safer travel conditions for both trail users and vehicular traffic on area roadways.

Bicycle/pedestrian only crash data was taken from FDOT's Statewide Crash Analysis Reporting (CAR) on-line database and Signal Four Analytics during a five-year period from 2015 to 2019. A total of 18 bicycle and pedestrian collisions were reported along the entire trail from 2015 to 2019. Six (33%) of the collisions involved a bicycle and 12 (67%) of the collisions involved a pedestrian. Of the six bicycle crashes, there was one serious injury, four injury, and one property damage only crashes. Of the 12 pedestrian crashes, there was one fatal crash, two serious injury crashes, and nine injury crashes. Of the total collisions, 12 (67%) were during nighttime and 2 (11%) were during wet weather. The total economic loss from the pedestrian and bicycle crashes were assessed and were estimated to cost $15,599,210.

To evaluate the potential safety improvements along Old Dixie Trail, as well as at study intersections in the Build Alternative, a literature review was performed to see the safety benefit from implementing a shared-use path, and crash modification factors for safety countermeasures were utilized from the Crash Modification Factors (CMF) Clearinghouse (Source: http://www.cmfclearinghouse.org/) and from pedestrian and bicycle safety studies provided by the Federal Highway Administration (FHWA). From the literature review it was found that riding on shared-use paths were found to reduce injury risk for adults by 86 percent and 88 percent for children, as compared to riding in the street. Also, riders on shared-use paths were associated with a 40 percent reduction in the risk of falling as compared to riding on roadways. It could be concluded from this study that providing separated infrastructure, such as a shared-use path/trail, will provide a benefit in terms of a reduction in injury related crashes.

Countermeasures were analyzed at the study intersections to determine the potential safety benefits at crossing locations. Countermeasures such as leading pedestrian intervals, pedestrian countdown timers, flashing beacons (RRFB and PHB), advanced yield warnings, and signal backplates have been found to provide a safety benefit, especially related to a reduction in vehicle and pedestrian crashes. Based on the CMF review, reductions in vehicle and pedestrian crashes were between 8.8% to 56.8% based on the treatment type. Countermeasures will need to be provided at trail crossing locations to provide safer travel conditions for both trail users and vehicular traffic.

APPENDIX A

Raw Traffic Data

TURNING MOVEMENT COUNT: Ramsgate Rd @ Berkley Rd
EAST/WEST ST: Ramsgate Rd/Dixie Hwy

TIME: 7am-6pm
NORTH/SOUTH ST: Berkley Rd
COUNTED BY: Video Cam2

ALL VEHICLES

START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	33	60	15	0	108	12	146	56	0	214	322	10	14	65	0	89	17	16	3	0	36	125	447
7:15	53	77	12	0	142	19	131	65	0	215	357	20	21	48	0	89	24	38	8	0	70	159	516
7:30	59	109	26	0	194	21	165	77	0	263	457	19	20	59	0	98	18	42	10	0	70	168	625
7:45	59	84	33	0	176	31	189	74	0	294	470	16	27	50	0	93	13	25	10	0	48	141	611
Total	**204**	**330**	**86**	**0**	**620**	**83**	**631**	**272**	**0**	**986**	**1,606**	**65**	**82**	**222**	**0**	**369**	**72**	**121**	**31**	**0**	**224**	**593**	**2,199**
8:00	40	77	16	0	133	18	127	41	0	186	319	18	23	41	0	82	15	17	5	0	37	119	438
8:15	30	77	11	0	118	15	109	31	0	155	273	18	16	45	0	79	10	9	9	0	28	107	380
8:30	22	66	11	0	99	8	112	30	0	150	249	12	10	41	0	63	12	25	6	0	43	106	355
8:45	29	53	10	0	92	13	101	19	0	133	225	12	8	44	0	64	14	20	2	0	36	100	325
Total	**121**	**273**	**48**	**0**	**442**	**54**	**449**	**121**	**0**	**624**	**1,066**	**60**	**57**	**171**	**0**	**288**	**51**	**71**	**22**	**0**	**144**	**432**	**1,498**
9:00	30	69	10	0	109	11	81	19	0	111	220	8	15	30	0	53	9	9	1	0	19	72	292
9:15	26	73	11	0	110	5	69	17	0	91	201	10	10	25	0	45	9	10	3	0	22	67	268
9:30	29	74	10	0	113	3	93	26	0	122	235	11	6	37	0	54	11	9	3	0	23	77	312
9:45	29	68	8	0	105	13	79	18	0	110	215	10	11	26	0	47	11	14	5	0	30	77	292
Total	**114**	**284**	**39**	**0**	**437**	**32**	**322**	**80**	**0**	**434**	**871**	**39**	**42**	**118**	**0**	**199**	**40**	**42**	**12**	**0**	**94**	**293**	**1,164**
11:00	25	92	18	0	135	9	92	17	0	118	253	10	15	31	0	56	20	8	5	0	33	89	342
11:15	37	87	11	0	135	13	95	17	0	125	260	6	15	37	0	58	18	22	6	0	46	104	364
11:30	25	96	17	0	138	11	94	16	0	121	259	15	18	36	0	69	13	13	4	0	30	99	358
11:45	35	86	19	0	140	7	80	14	0	101	241	22	19	49	0	90	8	7	4	0	19	109	350
Total	**122**	**361**	**65**	**0**	**548**	**40**	**361**	**64**	**0**	**465**	**1,013**	**53**	**67**	**153**	**0**	**273**	**59**	**50**	**19**	**0**	**128**	**401**	**1,414**
12:00	27	101	15	0	143	6	84	15	0	105	248	20	9	36	0	65	20	21	6	0	47	112	360
12:15	39	94	26	0	159	7	81	14	0	102	261	14	13	36	0	63	16	11	3	0	30	93	354
12:30	51	84	14	0	149	6	81	13	0	100	249	22	13	43	0	78	12	20	9	0	41	119	368
12:45	48	102	14	0	164	10	79	12	0	101	265	11	10	38	0	59	14	20	8	0	42	101	366
Total	**165**	**381**	**69**	**0**	**615**	**29**	**325**	**54**	**0**	**408**	**1,023**	**67**	**45**	**153**	**0**	**265**	**62**	**72**	**26**	**0**	**160**	**425**	**1,448**
15:00	64	118	30	0	212	16	122	35	0	173	385	18	23	35	0	76	21	30	6	0	57	133	518
15:15	68	140	14	0	222	9	134	26	0	169	391	37	18	53	0	108	19	23	6	0	48	156	547
15:30	51	127	27	0	205	9	130	19	0	158	363	21	17	55	0	93	13	15	16	0	44	137	500
15:45	39	128	21	0	188	8	84	20	0	112	300	35	31	41	0	107	28	14	13	0	55	162	462
Total	**222**	**513**	**92**	**0**	**827**	**42**	**470**	**100**	**0**	**612**	**1,439**	**111**	**89**	**184**	**0**	**384**	**81**	**82**	**41**	**0**	**204**	**588**	**2,027**
16:00	51	151	24	0	226	18	115	20	0	153	379	23	20	52	0	95	22	18	9	0	49	144	523
16:15	73	116	19	0	208	6	113	13	0	132	340	40	39	48	0	127	14	26	9	0	49	176	516
16:30	52	154	30	0	236	6	114	22	0	142	378	49	27	50	0	126	26	25	3	0	54	180	558
16:45	49	138	24	0	211	8	125	16	0	149	360	43	32	64	0	139	26	31	11	0	68	207	567
Total	**225**	**559**	**97**	**0**	**881**	**38**	**467**	**71**	**0**	**576**	**1,457**	**155**	**118**	**214**	**0**	**487**	**88**	**100**	**32**	**0**	**220**	**707**	**2,164**
17:00	57	129	19	0	205	9	118	24	0	151	356	51	37	46	1	135	17	22	14	0	53	188	544
17:15	94	167	33	0	294	30	91	21	0	142	436	57	35	47	0	139	17	31	6	0	54	193	629
17:30	55	173	20	0	248	6	104	22	0	132	380	52	29	58	0	139	13	25	13	0	51	190	570
17:45	54	155	29	0	238	14	109	19	0	142	380	30	27	48	0	105	23	20	13	0	56	161	541
Total	**260**	**624**	**101**	**0**	**985**	**59**	**422**	**86**	**0**	**567**	**1,552**	**190**	**128**	**199**	**1**	**518**	**70**	**98**	**46**	**0**	**214**	**732**	**2,284**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Auburndale **COUNTY:** Polk

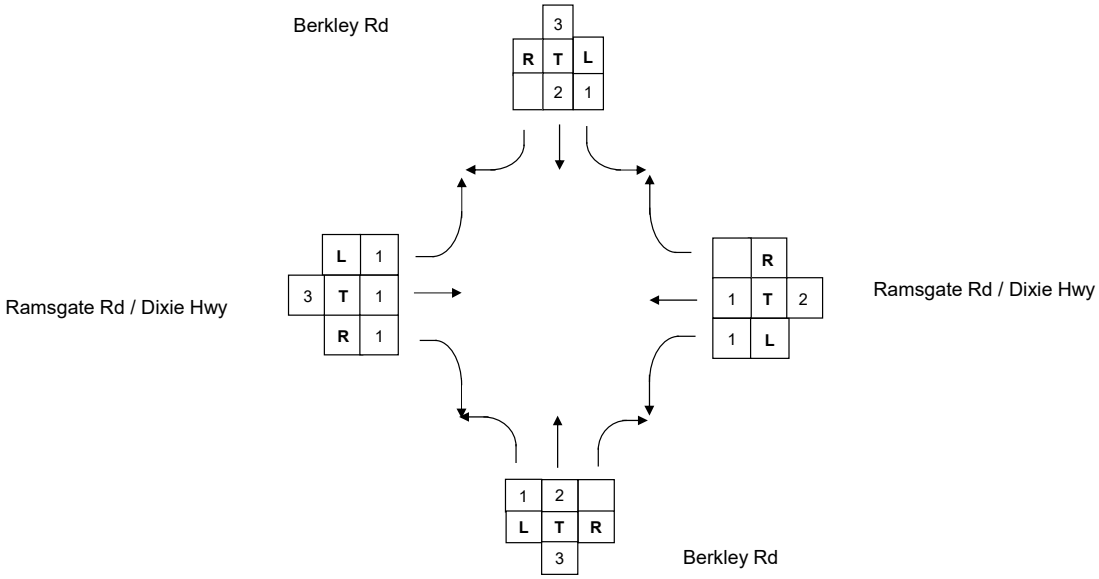
INTR ROUTE: Berkley Rd **STATE ROUTE:** Ramsgate Rd / Dixie Hwy

OBSERVER: Video Cam2 **DATE: 05/01/2019** **MILEPOST:**

WEATHER: Sunny - Clear **ROAD CONDITION: Dry - Good**

REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/24/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	204	330	86	0	**620**	83	631	272	0	**986**	**1,606**	65	82	222	0	**369**	72	121	31	0	**224**	**593**
8 - 9	121	273	48	0	**442**	54	449	121	0	**624**	**1,066**	60	57	171	0	**288**	51	71	22	0	**144**	**432**
9 - 10	114	284	39	0	**437**	32	322	80	0	**434**	**871**	39	42	118	0	**199**	40	42	12	0	**94**	**293**
11 - 12	122	361	65	0	**548**	40	361	64	0	**465**	**1,013**	53	67	153	0	**273**	59	50	19	0	**128**	**401**
12 - 1	165	381	69	0	**615**	29	325	54	0	**408**	**1,023**	67	45	153	0	**265**	62	72	26	0	**160**	**425**
3 - 4	222	513	92	0	**827**	42	470	100	0	**612**	**1,439**	111	89	184	0	**384**	81	82	41	0	**204**	**588**
4 - 5	225	559	97	0	**881**	38	467	71	0	**576**	**1,457**	155	118	214	0	**487**	88	100	32	0	**220**	**707**
5 - 6	260	624	101	0	**985**	59	422	86	0	**567**	**1,552**	190	128	199	1	**518**	70	98	46	0	**214**	**732**
TOTAL	1,433	3,325	597	0	**5,355**	377	3,447	848	0	**4,672**	**10,027**	740	628	1,414	1	**2,783**	523	636	229	0	**1,388**	**4,171**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Auburndale **COUNTY:** Polk
INTER. ROUTE: Berkley Rd **STATE ROUTE:** Ramsgate Rd / Dixie Hwy
OBSERVER: Video Cam2 **DATE:** 05/01/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/24/19

Berkley Rd

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	2	0	0	1	0	0	**3**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	1	0	0	0	**1**
0	0	0	0	0	0	0	0	**0**
0	**0**	**2**	**0**	**1**	**1**	**0**	**0**	**4**

7-8	1	1	0	0	**2**
8-9	1	0	0	1	**2**
9-10	3	0	2	0	**5**
11-12	0	0	0	0	**0**
12-1	0	0	1	0	**1**
3-4	0	0	5	0	**5**
4-5	1	0	0	0	**1**
5-6	0	0	0	0	**0**
Total	**6**	**1**	**8**	**1**	**16**

Ramsgate Rd / Dixie Hwy

7-8	0	0	1	2	**3**
8-9	0	1	0	0	**1**
9-10	0	1	3	0	**4**
11-12	0	0	0	0	**0**
12-1	0	0	0	2	**2**
3-4	1	0	0	0	**1**
4-5	0	0	2	0	**2**
5-6	0	0	0	0	**0**
Total	**1**	**2**	**6**	**4**	**13**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	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**	**0**	**0**	**0**

Berkley Rd

TURNING MOVEMENT COUNT: Ramsgate Rd @ Pilaklakaha Ave
EAST/WEST ST: Pilaklakaha Ave
DATE: 05/01/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: Ramsgate Rd
COUNTED BY: Video Cam2

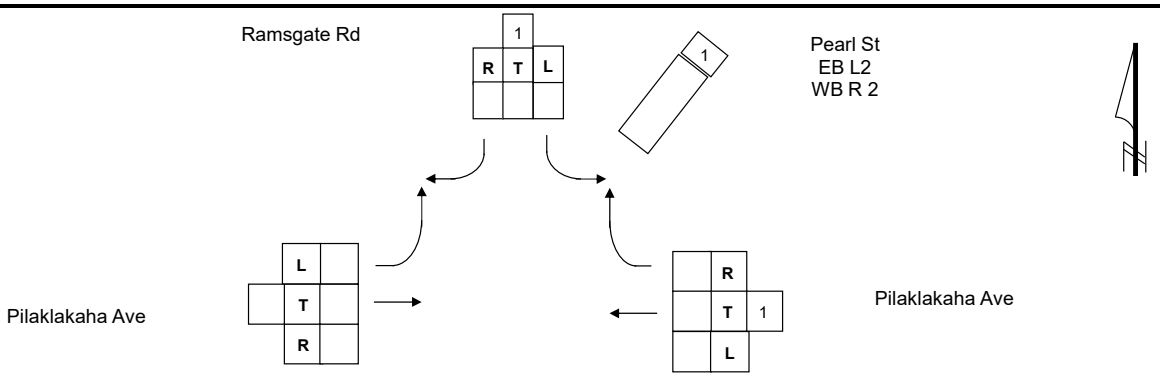
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	EB L 2	U-TURN	TOTAL	LEFT	THRU	RIGHT	WB R 2	TOTAL	EW TOTAL	TOTAL
7:00	0	0	0	0	0	54	0	4	0	58	58	4	3	4	0	11	0	17	30	0	47	58	116
7:15	0	0	0	0	0	58	0	2	0	60	60	2	2	0	0	4	0	3	35	2	40	44	104
7:30	0	0	0	0	0	63	0	4	0	67	67	1	8	0	0	9	0	12	48	0	60	69	136
7:45	0	0	0	0	0	117	0	5	0	122	122	2	5	2	0	9	0	6	31	0	37	46	168
Total	**0**	**0**	**0**	**0**	**0**	**292**	**0**	**15**	**0**	**307**	**307**	**9**	**18**	**6**	**0**	**33**	**0**	**38**	**144**	**2**	**184**	**217**	**524**
8:00	0	0	0	0	0	57	0	1	0	58	58	2	1	0	0	3	0	6	22	0	28	31	89
8:15	0	0	0	0	0	57	0	4	0	61	61	3	5	0	0	8	0	3	26	0	29	37	98
8:30	0	0	0	0	0	48	0	1	0	49	49	2	10	0	0	12	0	11	42	2	55	67	116
8:45	0	0	0	0	0	44	0	0	0	44	44	2	7	0	0	9	0	10	35	6	51	60	104
Total	**0**	**0**	**0**	**0**	**0**	**206**	**0**	**6**	**0**	**212**	**212**	**9**	**23**	**0**	**0**	**32**	**0**	**30**	**125**	**8**	**163**	**195**	**407**
9:00	0	0	0	0	0	31	0	3	0	34	34	4	4	2	0	10	0	10	16	0	26	36	70
9:15	0	0	0	0	0	27	0	2	0	29	29	2	1	0	0	3	0	1	19	2	22	25	54
9:30	0	0	0	0	0	20	0	3	0	23	23	4	1	0	0	5	0	6	15	4	25	30	53
9:45	0	0	0	0	0	23	0	4	0	27	27	2	2	0	0	4	0	4	32	0	36	40	67
Total	**0**	**0**	**0**	**0**	**0**	**101**	**0**	**12**	**0**	**113**	**113**	**12**	**8**	**2**	**0**	**22**	**0**	**21**	**82**	**6**	**109**	**131**	**244**
11:00	0	0	0	0	0	32	0	4	0	36	36	6	2	0	0	8	0	8	25	2	35	43	79
11:15	0	0	0	0	0	32	0	6	0	38	38	3	4	0	0	7	0	13	27	0	40	47	85
11:30	0	0	0	0	0	45	0	2	0	47	47	1	4	0	0	5	0	4	24	0	28	33	80
11:45	0	0	0	0	0	45	0	0	0	45	45	2	5	0	0	7	0	10	31	0	41	48	93
Total	**0**	**0**	**0**	**0**	**0**	**154**	**0**	**12**	**0**	**166**	**166**	**12**	**15**	**0**	**0**	**27**	**0**	**35**	**107**	**2**	**144**	**171**	**337**
12:00	0	0	0	0	0	27	0	3	0	30	30	3	4	0	0	7	0	9	40	1	50	57	87
12:15	0	0	0	0	0	35	0	0	0	35	35	4	3	0	0	7	0	7	33	1	41	48	83
12:30	0	0	0	0	0	37	0	0	0	37	37	4	5	0	0	9	0	8	42	0	50	59	96
12:45	0	0	0	0	0	41	0	3	0	44	44	5	2	0	0	7	0	12	35	2	49	56	100
Total	**0**	**0**	**0**	**0**	**0**	**140**	**0**	**6**	**0**	**146**	**146**	**16**	**14**	**0**	**0**	**30**	**0**	**36**	**150**	**4**	**190**	**220**	**366**
15:00	0	0	0	0	0	71	0	2	0	73	73	2	1	1	0	4	0	15	50	3	68	72	145
15:15	0	0	0	0	0	56	0	3	0	59	59	4	13	0	0	17	0	11	52	0	63	80	139
15:30	0	0	0	0	0	46	0	3	0	49	49	4	9	0	0	13	0	11	61	2	74	87	136
15:45	0	0	0	0	0	48	0	6	0	54	54	0	7	0	0	7	0	12	62	4	78	85	139
Total	**0**	**0**	**0**	**0**	**0**	**221**	**0**	**14**	**0**	**235**	**235**	**10**	**30**	**1**	**0**	**41**	**0**	**49**	**225**	**9**	**283**	**324**	**559**
16:00	0	0	0	0	0	63	0	6	0	69	69	3	9	0	0	12	0	12	53	2	67	79	148
16:15	0	0	0	0	0	50	0	3	0	53	53	3	9	0	0	12	0	20	54	4	78	90	143
16:30	0	0	0	0	0	45	0	1	0	46	46	6	7	0	0	13	0	14	58	0	72	85	131
16:45	0	0	0	0	0	45	0	1	0	46	46	3	4	0	0	7	0	14	62	4	80	87	133
Total	**0**	**0**	**0**	**0**	**0**	**203**	**0**	**11**	**0**	**214**	**214**	**15**	**29**	**0**	**0**	**44**	**0**	**60**	**227**	**10**	**297**	**341**	**555**
17:00	0	0	0	0	0	47	0	5	0	52	52	4	9	0	0	13	0	18	72	2	92	105	157
17:15	0	0	0	0	0	74	0	1	0	75	75	4	10	0	0	14	0	19	61	5	85	99	174
17:30	0	0	0	0	0	49	0	4	0	53	53	5	6	0	0	11	0	11	76	0	87	98	151
17:45	0	0	0	0	0	51	0	2	0	53	53	5	8	1	0	14	0	8	49	3	60	74	127
Total	**0**	**0**	**0**	**0**	**0**	**221**	**0**	**12**	**0**	**233**	**233**	**18**	**33**	**1**	**0**	**52**	**0**	**56**	**258**	**10**	**324**	**376**	**609**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Auburndale **COUNTY:** Polk County
INTR ROUTE: Pilaklakaha Ave **STATE ROUTE:** Ramsgate Rd
OBSERVER: Video Cam2 **DATE:** 05/01/19
WEATHER: Sunny - Clear **ROAD CONDITION:** Good - Dry
REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/29/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	EB L2	U	TOT	L	T	R	WB R2	TOT	E/W
7 - 8	0	0	0	0	**0**	292	0	15	0	**307**	**307**	9	18	6	0	**33**	0	38	144	2	**184**	**217**
8 - 9	0	0	0	0	**0**	206	0	6	0	**212**	**212**	9	23	0	0	**32**	0	30	125	8	**163**	**195**
9 - 10	0	0	0	0	**0**	101	0	12	0	**113**	**113**	12	8	2	0	**22**	0	21	82	6	**109**	**131**
11 - 12	0	0	0	0	**0**	154	0	12	0	**166**	**166**	12	15	0	0	**27**	0	35	107	2	**144**	**171**
12 - 1	0	0	0	0	**0**	140	0	6	0	**146**	**146**	16	14	0	0	**30**	0	36	150	4	**190**	**220**
3 - 4	0	0	0	0	**0**	221	0	14	0	**235**	**235**	10	30	1	0	**41**	0	49	225	9	**283**	**324**
4 - 5	0	0	0	0	**0**	203	0	11	0	**214**	**214**	15	29	0	0	**44**	0	60	227	10	**297**	**341**
5 - 6	0	0	0	0	**0**	221	0	12	0	**233**	**233**	18	33	1	0	**52**	0	56	258	10	**324**	**376**
TOTAL	0	0	0	0		1,538	0	88	0	**1,626**	**1,626**	101	170	10	0	**281**	0	325	1,318	51	**1,694**	**1,975**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
CITY: Auburndale
COUNTY: Polk County
INTER. ROUTE: Pilaklakaha Ave
STATE ROUTE: Ramsgate Rd
OBSERVER: Video Cam2
DATE: 05/01/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/29/19

Ramsgate Rd

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	0	0	0	0	0	0	0	**1**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
1	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1

Pilaklakaha Ave

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	0

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	0

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	4	0	**4**
0	0	2	0	0	0	0	1	**3**
2	0	0	0	0	3	1	0	**6**
2	**0**	**2**	**0**	**0**	**3**	**5**	**1**	13

TURNING MOVEMENT COUNT: Magnolia Ave (US 92) @ Main St
EAST/WEST ST: Magnolia Ave (US 92)

TIME: 7am-6pm
NORTH/SOUTH ST: Main St
COUNTED BY: Video Cam2

ALL VEHICLES

START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	30	24	6	0	60	20	47	32	0	99	159	18	231	10	0	259	15	288	18	1	322	581	740
7:15	48	45	10	0	103	21	38	27	0	86	189	22	241	11	0	274	15	294	6	0	315	589	778
7:30	41	47	11	0	99	27	40	21	0	88	187	39	225	5	1	270	17	255	9	0	281	551	738
7:45	36	46	11	0	93	25	31	18	0	74	167	39	296	16	0	351	25	265	22	0	312	663	830
Total	**155**	**162**	**38**	**0**	**355**	**93**	**156**	**98**	**0**	**347**	**702**	**118**	**993**	**42**	**1**	**1,154**	**72**	**1,102**	**55**	**1**	**1,230**	**2,384**	**3,086**
8:00	29	31	15	0	75	25	30	22	0	77	152	23	205	9	0	237	18	205	12	0	235	472	624
8:15	19	28	6	0	53	37	35	22	0	94	147	29	252	7	0	288	28	232	17	2	279	567	714
8:30	21	42	10	0	73	26	27	27	0	80	153	29	218	4	0	251	16	227	18	0	261	512	665
8:45	20	29	5	0	54	30	28	23	0	81	135	30	231	6	0	267	10	203	34	1	248	515	650
Total	**89**	**130**	**36**	**0**	**255**	**118**	**120**	**94**	**0**	**332**	**587**	**111**	**906**	**26**	**0**	**1,043**	**72**	**867**	**81**	**3**	**1,023**	**2,066**	**2,653**
9:00	15	30	4	0	49	37	16	30	0	83	132	29	188	4	0	221	11	202	18	0	231	452	584
9:15	20	19	7	0	46	20	15	22	0	57	103	26	158	10	1	195	5	238	15	0	258	453	556
9:30	17	25	8	0	50	25	17	24	0	66	116	24	214	4	0	242	18	205	23	0	246	488	604
9:45	20	23	10	0	53	18	16	20	0	54	107	29	221	7	0	257	10	205	19	1	235	492	599
Total	**72**	**97**	**29**	**0**	**198**	**100**	**64**	**96**	**0**	**260**	**458**	**108**	**781**	**25**	**1**	**915**	**44**	**850**	**75**	**1**	**970**	**1,885**	**2,343**
11:00	19	22	9	0	50	28	27	30	0	85	135	18	220	8	1	247	8	230	42	0	280	527	662
11:15	21	21	8	0	50	23	25	31	0	79	129	17	228	13	0	258	13	201	22	0	236	494	623
11:30	17	27	0	0	44	35	17	25	0	77	121	32	243	10	1	286	7	190	30	0	227	513	634
11:45	23	30	6	0	59	34	32	31	0	97	156	26	264	11	0	301	14	263	26	0	303	604	760
Total	**80**	**100**	**23**	**0**	**203**	**120**	**101**	**117**	**0**	**338**	**541**	**93**	**955**	**42**	**2**	**1,092**	**42**	**884**	**120**	**0**	**1,046**	**2,138**	**2,679**
12:00	28	26	8	0	62	42	25	31	0	98	160	32	245	11	0	288	16	252	24	1	293	581	741
12:15	28	28	2	0	58	22	18	23	0	63	121	21	218	7	0	246	9	239	30	0	278	524	645
12:30	20	20	7	0	47	30	36	32	0	98	145	33	224	3	0	260	10	287	34	0	331	591	736
12:45	33	37	4	0	74	26	20	29	0	75	149	18	212	6	1	237	4	263	19	0	286	523	672
Total	**109**	**111**	**21**	**0**	**241**	**120**	**99**	**115**	**0**	**334**	**575**	**104**	**899**	**27**	**1**	**1,031**	**39**	**1,041**	**107**	**1**	**1,188**	**2,219**	**2,794**
15:00	21	27	6	0	54	29	25	33	0	87	141	30	254	12	0	296	10	280	47	1	338	634	775
15:15	18	31	11	0	60	23	21	30	0	74	134	39	290	13	0	342	18	308	40	1	367	709	843
15:30	32	45	10	0	87	24	25	27	1	77	164	23	258	10	0	291	17	275	42	2	336	627	791
15:45	22	35	12	0	69	31	32	26	0	89	158	32	306	8	0	346	11	259	23	0	293	639	797
Total	**93**	**138**	**39**	**0**	**270**	**107**	**103**	**116**	**1**	**327**	**597**	**124**	**1,108**	**43**	**0**	**1,275**	**56**	**1,122**	**152**	**4**	**1,334**	**2,609**	**3,206**
16:00	34	32	5	0	71	20	28	34	0	82	153	39	300	15	0	354	13	322	25	0	360	714	867
16:15	32	40	5	0	77	30	26	34	0	90	167	21	285	6	0	312	10	296	17	0	323	635	802
16:30	28	39	9	0	76	25	24	31	0	80	156	80	284	5	0	369	11	347	16	1	375	744	900
16:45	33	47	5	0	85	27	22	17	0	66	151	30	308	10	1	349	6	271	27	0	304	653	804
Total	**127**	**158**	**24**	**0**	**309**	**102**	**100**	**116**	**0**	**318**	**627**	**170**	**1,177**	**36**	**1**	**1,384**	**40**	**1,236**	**85**	**1**	**1,362**	**2,746**	**3,373**
17:00	21	41	18	0	80	48	34	33	0	115	195	39	343	10	0	392	11	297	33	1	342	734	929
17:15	33	39	13	0	85	40	18	23	0	81	166	41	326	13	0	380	8	343	34	2	387	767	933
17:30	31	57	7	0	95	42	32	22	0	96	191	46	349	7	0	402	10	320	31	0	361	763	954
17:45	26	48	8	0	82	24	18	24	0	66	148	34	300	17	0	351	14	290	26	0	330	681	829
Total	**111**	**185**	**46**	**0**	**342**	**154**	**102**	**102**	**0**	**358**	**700**	**160**	**1,318**	**47**	**0**	**1,525**	**43**	**1,250**	**124**	**3**	**1,420**	**2,945**	**3,645**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY: Auburndale** **COUNTY: Polk County**

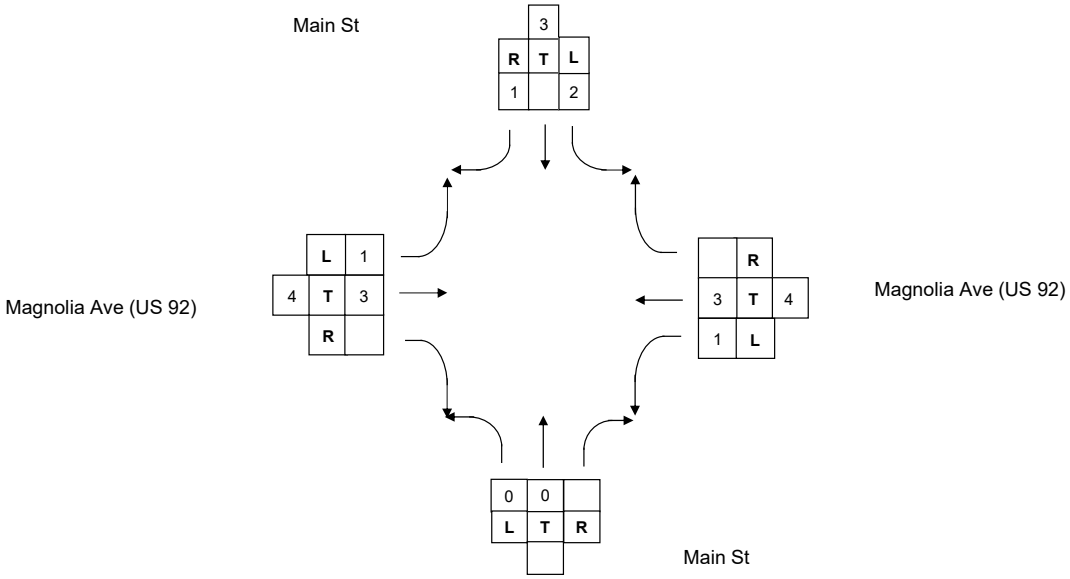
INTR ROUTE: Magnolia Ave (US 92) **STATE ROUTE: Main St (SR 600)**

OBSERVER: Video Cam2 **DATE: 05/01/2019** **MILEPOST:**

WEATHER: Sunny - Clear **ROAD CONDITION: Good - Dry**

REMARKS:

FORM COMPLETED BY: TM **DATE: 05/24/2019**



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	155	162	38	0	**355**	93	156	98	0	**347**	**702**	118	993	42	1	**1,154**	72	1,102	55	1	**1,230**	**2,384**
8 - 9	89	130	36	0	**255**	118	120	94	0	**332**	**587**	111	906	26	0	**1,043**	72	867	81	3	**1,023**	**2,066**
9 - 10	72	97	29	0	**198**	100	64	96	0	**260**	**458**	108	781	25	1	**915**	44	850	75	1	**970**	**1,885**
11 - 12	80	100	23	0	**203**	120	101	117	0	**338**	**541**	93	955	42	2	**1,092**	42	884	120	0	**1,046**	**2,138**
12 - 1	109	111	21	0	**241**	120	99	115	0	**334**	**575**	104	899	27	1	**1,031**	39	1,041	107	1	**1,188**	**2,219**
3 - 4	93	138	39	0	**270**	107	103	116	1	**327**	**597**	124	1,108	43	0	**1,275**	56	1,122	152	4	**1,334**	**2,609**
4 - 5	127	158	24	0	**309**	102	100	116	0	**318**	**627**	170	1,177	36	1	**1,384**	40	1,236	85	1	**1,362**	**2,746**
5 - 6	111	185	46	0	**342**	154	102	102	0	**358**	**700**	160	1,318	47	0	**1,525**	43	1,250	124	3	**1,420**	**2,945**
TOTAL	836	1,081	256	0	**2,173**	914	845	854	1	**2,614**	**4,787**	988	8,137	288	6	**9,419**	408	8,352	799	14	**9,573**	**18,992**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

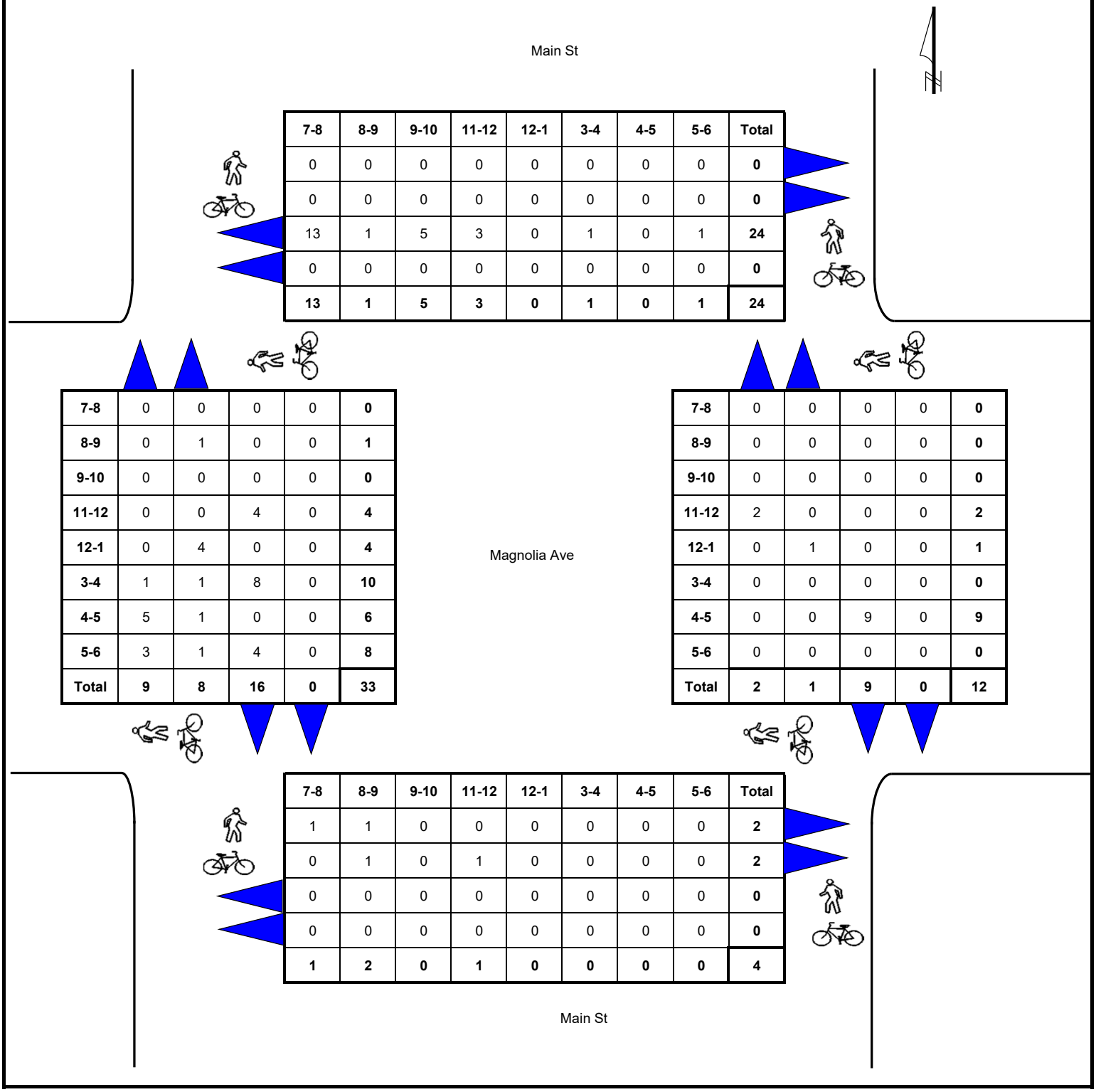
SECTION: N/A **CITY: Auburndale** **COUNTY: Polk County**

INTER. ROUTE: Magnolia Ave **STATE ROUTE: Main St**

OBSERVER: Video Cam2 **DATE:** 05/01/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/24/19



7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
13	1	5	3	0	1	0	1	**24**
0	0	0	0	0	0	0	0	**0**
13	**1**	**5**	**3**	**0**	**1**	**0**	**1**	**24**

7-8	0	0	0	0	**0**
8-9	0	1	0	0	**1**
9-10	0	0	0	0	**0**
11-12	0	0	4	0	**4**
12-1	0	4	0	0	**4**
3-4	1	1	8	0	**10**
4-5	5	1	0	0	**6**
5-6	3	1	4	0	**8**
Total	**9**	**8**	**16**	**0**	**33**

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	2	0	0	0	**2**
12-1	0	1	0	0	**1**
3-4	0	0	0	0	**0**
4-5	0	0	9	0	**9**
5-6	0	0	0	0	**0**
Total	**2**	**1**	**9**	**0**	**12**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	1	0	0	0	0	0	0	**2**
0	1	0	1	0	0	0	0	**2**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
1	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**4**

TURNING MOVEMENT COUNT: SR 544 @ US 17
EAST/WEST ST: SR 544
DATE: 05/14/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: US 17
COUNTED BY: Video Cam2

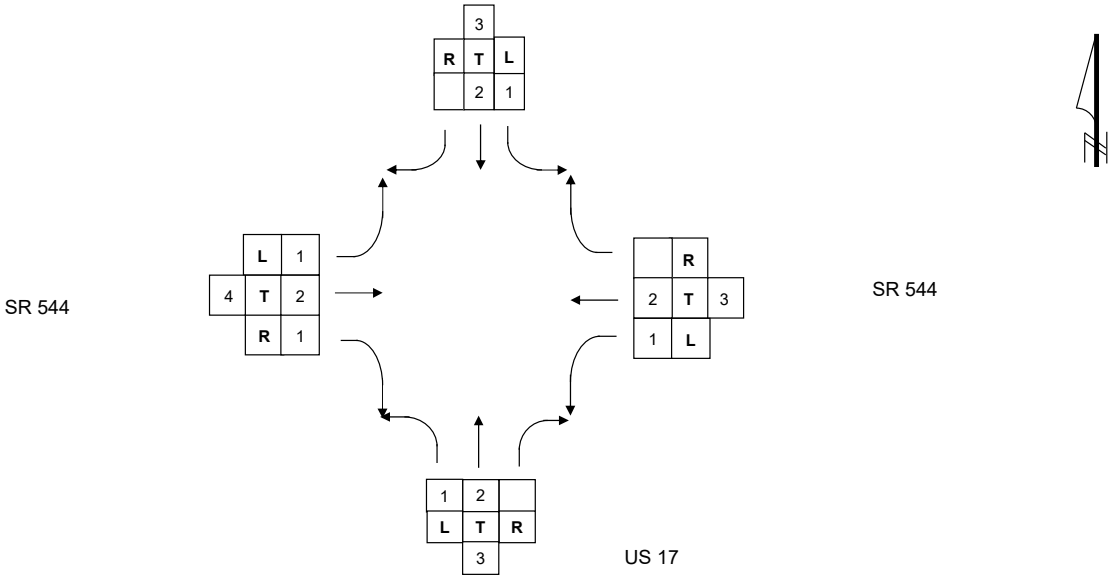
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	48	102	14	0	164	53	152	10	0	215	379	20	117	58	0	195	19	140	45	0	204	399	778
7:15	73	105	9	0	187	82	150	17	0	249	436	45	145	76	0	266	57	127	31	0	215	481	917
7:30	82	114	4	0	200	70	150	9	0	229	429	35	220	134	0	389	31	173	52	0	256	645	1,074
7:45	72	100	10	0	182	73	184	10	0	267	449	41	157	127	0	325	27	120	52	0	199	524	973
Total	**275**	**421**	**37**	**0**	**733**	**278**	**636**	**46**	**0**	**960**	**1,693**	**141**	**639**	**395**	**0**	**1,175**	**134**	**560**	**180**	**0**	**874**	**2,049**	**3,742**
8:00	75	114	9	0	198	54	173	10	1	238	436	30	134	123	0	287	34	141	45	0	220	507	943
8:15	78	104	7	0	189	56	143	14	1	214	403	25	127	103	0	255	24	162	55	0	241	496	899
8:30	69	69	10	0	148	81	148	8	0	237	385	40	128	93	0	261	38	149	40	0	227	488	873
8:45	76	100	9	0	185	70	138	24	0	232	417	40	123	77	0	240	21	124	34	0	179	419	836
Total	**298**	**387**	**35**	**0**	**720**	**261**	**602**	**56**	**2**	**921**	**1,641**	**135**	**512**	**396**	**0**	**1,043**	**117**	**576**	**174**	**0**	**867**	**1,910**	**3,551**
9:00	73	85	11	0	169	59	99	10	0	168	337	45	131	80	0	256	32	130	32	0	194	450	787
9:15	70	85	7	0	162	69	166	10	0	245	407	44	114	83	0	241	32	100	30	0	162	403	810
9:30	92	105	6	0	203	62	159	16	0	237	440	30	90	67	1	188	38	112	34	0	184	372	812
9:45	64	101	13	0	178	60	113	11	0	184	362	47	122	79	0	248	37	113	28	0	178	426	788
Total	**299**	**376**	**37**	**0**	**712**	**250**	**537**	**47**	**0**	**834**	**1,546**	**166**	**457**	**309**	**1**	**933**	**139**	**455**	**124**	**0**	**718**	**1,651**	**3,197**
11:00	88	114	16	0	218	41	136	10	0	187	405	33	125	93	1	252	34	121	30	1	186	438	843
11:15	76	71	34	0	181	48	152	28	0	228	409	37	108	87	1	233	36	115	24	1	176	409	818
11:30	75	117	15	0	207	35	120	15	0	170	377	39	152	84	1	276	28	146	36	0	210	486	863
11:45	116	138	15	0	269	39	147	18	1	205	474	42	132	76	2	252	34	124	33	1	192	444	918
Total	**355**	**440**	**80**	**0**	**875**	**163**	**555**	**71**	**1**	**790**	**1,665**	**151**	**517**	**340**	**5**	**1,013**	**132**	**506**	**123**	**3**	**764**	**1,777**	**3,442**
12:00	114	137	14	0	265	36	90	11	0	137	402	41	139	104	0	284	26	147	45	1	219	503	905
12:15	89	125	13	0	227	48	149	12	0	209	436	45	150	79	0	274	30	165	24	0	219	493	929
12:30	100	131	16	0	247	44	129	16	0	189	436	40	131	78	0	249	29	147	39	0	215	464	900
12:45	99	108	20	0	227	42	128	19	0	189	416	46	141	78	0	265	33	128	41	0	202	467	883
Total	**402**	**501**	**63**	**0**	**966**	**170**	**496**	**58**	**0**	**724**	**1,690**	**172**	**561**	**339**	**0**	**1,072**	**118**	**587**	**149**	**1**	**855**	**1,927**	**3,617**
15:00	93	139	15	0	247	31	96	8	0	135	382	29	117	81	1	228	25	127	36	0	188	416	798
15:15	115	130	18	0	263	29	89	9	0	127	390	31	103	77	0	211	28	124	25	0	177	388	778
15:30	85	148	7	0	240	25	80	6	0	111	351	34	159	81	0	274	29	170	34	0	233	507	858
15:45	98	154	13	0	265	60	131	19	0	210	475	39	173	82	0	294	31	151	25	1	208	502	977
Total	**391**	**571**	**53**	**0**	**1,015**	**145**	**396**	**42**	**0**	**583**	**1,598**	**133**	**552**	**321**	**1**	**1,007**	**113**	**572**	**120**	**1**	**806**	**1,813**	**3,411**
16:00	93	143	10	1	247	50	147	19	0	216	463	36	153	69	0	258	34	173	51	0	258	516	979
16:15	107	160	12	0	279	48	148	17	0	213	492	38	148	70	2	258	16	160	45	0	221	479	971
16:30	102	131	22	0	255	51	162	11	0	224	479	53	149	70	0	272	27	126	46	1	200	472	951
16:45	78	136	8	0	222	61	153	10	0	224	446	47	181	78	0	306	23	137	50	0	210	516	962
Total	**380**	**570**	**52**	**1**	**1,003**	**210**	**610**	**57**	**0**	**877**	**1,880**	**174**	**631**	**287**	**2**	**1,094**	**100**	**596**	**192**	**1**	**889**	**1,983**	**3,863**
17:00	90	167	7	0	264	59	167	23	0	249	513	45	207	73	0	325	35	148	40	0	223	548	1,061
17:15	104	181	10	0	295	44	154	27	0	225	520	24	163	76	1	264	26	147	50	0	223	487	1,007
17:30	114	164	14	0	292	46	157	17	0	220	512	35	185	80	1	301	30	142	40	0	212	513	1,025
17:45	79	123	11	0	213	59	140	28	0	227	440	53	165	81	1	300	32	144	24	0	200	500	940
Total	**387**	**635**	**42**	**0**	**1,064**	**208**	**618**	**95**	**0**	**921**	**1,985**	**157**	**720**	**310**	**3**	**1,190**	**123**	**581**	**154**	**0**	**858**	**2,048**	**4,033**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Auburndale **COUNTY:** Polk County
INTR ROUTE: US 17 **STATE ROUTE:** SR 544
OBSERVER: Video Cam2 **DATE:** 05/14/19
WEATHER: Sunny - Clear **ROAD CONDITION:** Good - Dry
REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/28/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	275	421	37	0	**733**	278	636	46	0	**960**	**1,693**	141	639	395	0	**1,175**	134	560	180	0	**874**	**2,049**
8 - 9	298	387	35	0	**720**	261	602	56	2	**921**	**1,641**	135	512	396	0	**1,043**	117	576	174	0	**867**	**1,910**
9 - 10	299	376	37	0	**712**	250	537	47	0	**834**	**1,546**	166	457	309	1	**933**	139	455	124	0	**718**	**1,651**
11 - 12	355	440	80	0	**875**	163	555	71	1	**790**	**1,665**	151	517	340	5	**1,013**	132	506	123	3	**764**	**1,777**
12 - 1	402	501	63	0	**966**	170	496	58	0	**724**	**1,690**	172	561	339	0	**1,072**	118	587	149	1	**855**	**1,927**
3 - 4	391	571	53	0	**1,015**	145	396	42	0	**583**	**1,598**	133	552	321	1	**1,007**	113	572	120	1	**806**	**1,813**
4 - 5	380	570	52	1	**1,003**	210	610	57	0	**877**	**1,880**	174	631	287	2	**1,094**	100	596	192	1	**889**	**1,983**
5 - 6	387	635	42	0	**1,064**	208	618	95	0	**921**	**1,985**	157	720	310	3	**1,190**	123	581	154	0	**858**	**2,048**
TOTAL	2,787	3,901	399	1	**7,088**	1,685	4,450	472	3	**6,610**	**13,698**	1,229	4,589	2,697	12	**8,527**	976	4,433	1,216	6	**6,631**	**15,158**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Auburndale **COUNTY:** Polk County
INTER. ROUTE: US 17 **STATE ROUTE:** SR 544
OBSERVER: Video Cam2 **DATE:** 05/14/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/28/19

US 17

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	1	0	0	0	0	**1**
0	0	0	0	0	0	0	0	**0**
0	1	0	1	2	2	0	1	**7**
0	2	0	0	0	1	0	0	**3**
0	**3**	**0**	**2**	**2**	**3**	**0**	**1**	**11**

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	1	0	2	0	**3**
11-12	0	1	0	0	**1**
12-1	0	0	0	0	**0**
3-4	0	1	0	0	**1**
4-5	0	0	0	0	**0**
5-6	1	0	0	0	**1**
Total	**2**	**2**	**2**	**0**	**6**

SR 544

7-8	1	0	0	0	**1**
8-9	1	0	0	0	**1**
9-10	0	0	0	0	**0**
11-12	5	0	1	0	**6**
12-1	0	0	0	1	**1**
3-4	0	0	1	0	**1**
4-5	1	0	0	0	**1**
5-6	0	0	0	0	**0**
Total	**8**	**0**	**2**	**1**	**11**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	0	0	0	0	1	0	1	**3**
0	1	1	0	0	1	1	0	**4**
0	0	0	1	0	3	2	1	**7**
2	1	0	0	0	2	0	1	**6**
3	**2**	**1**	**1**	**0**	**7**	**3**	**3**	**20**

US 17

TURNING MOVEMENT COUNT: US 17 @ W Haines Blvd
EAST/WEST ST: W Haines Blvd

TIME: 7am-6pm
NORTH/SOUTH ST: US 17
COUNTED BY: Video Cam2

ALL VEHICLES

START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	0	0	0	0	0	4	287	1	0	292	292	0	21	3	0	24	9	1	0	0	10	34	326
7:15	0	0	0	0	0	5	376	4	0	385	385	0	30	4	0	34	6	9	0	0	15	49	434
7:30	0	0	0	0	0	6	358	4	0	368	368	0	44	3	0	47	17	5	0	0	22	69	437
7:45	0	0	0	0	0	2	411	4	0	417	417	0	21	4	0	25	12	20	0	0	32	57	474
Total	**0**	**0**	**0**	**0**	**0**	**17**	**1,432**	**13**	**0**	**1,462**	**1,462**	**0**	**116**	**14**	**0**	**130**	**44**	**35**	**0**	**0**	**79**	**209**	**1,671**
8:00	0	0	0	0	0	3	321	4	0	328	328	0	17	4	0	21	11	4	0	0	15	36	364
8:15	0	0	0	0	0	4	317	3	0	324	324	0	11	0	0	11	13	3	0	0	16	27	351
8:30	0	0	0	0	0	9	299	4	0	312	312	0	6	3	0	9	13	4	0	0	17	26	338
8:45	0	0	0	0	0	12	303	3	0	318	318	0	2	4	0	6	16	7	0	0	23	29	347
Total	**0**	**0**	**0**	**0**	**0**	**28**	**1,240**	**14**	**0**	**1,282**	**1,282**	**0**	**36**	**11**	**0**	**47**	**53**	**18**	**0**	**0**	**71**	**118**	**1,400**
9:00	0	0	0	0	0	5	232	1	0	238	238	0	7	3	0	10	13	3	0	0	16	26	264
9:15	0	0	0	0	0	6	267	3	0	276	276	0	5	1	0	6	10	3	0	0	13	19	295
9:30	0	0	0	0	0	5	231	4	0	240	240	0	3	2	0	5	17	6	0	0	23	28	268
9:45	0	0	0	0	0	9	203	1	0	213	213	0	9	11	0	20	18	2	0	0	20	40	253
Total	**0**	**0**	**0**	**0**	**0**	**25**	**933**	**9**	**0**	**967**	**967**	**0**	**24**	**17**	**0**	**41**	**58**	**14**	**0**	**0**	**72**	**113**	**1,080**
11:00	0	0	0	0	0	3	225	3	0	231	231	0	3	2	0	5	12	10	0	0	22	27	258
11:15	0	0	0	0	0	7	205	3	0	215	215	0	5	3	0	8	13	3	0	0	16	24	239
11:30	0	0	0	0	0	5	213	1	0	219	219	0	4	1	0	5	10	6	0	0	16	21	240
11:45	0	0	0	0	0	6	232	2	0	240	240	0	5	3	0	8	14	2	0	0	16	24	264
Total	**0**	**0**	**0**	**0**	**0**	**21**	**875**	**9**	**0**	**905**	**905**	**0**	**17**	**9**	**0**	**26**	**49**	**21**	**0**	**0**	**70**	**96**	**1,001**
12:00	0	0	0	0	0	16	214	2	0	232	232	0	5	4	0	9	19	5	0	0	24	33	265
12:15	0	0	0	0	0	7	215	4	0	226	226	0	2	4	0	6	10	4	0	0	14	20	246
12:30	0	0	0	0	0	5	256	3	0	264	264	0	5	3	0	8	20	4	0	0	24	32	296
12:45	0	0	0	0	0	10	246	1	0	257	257	0	5	2	0	7	23	4	0	0	27	34	291
Total	**0**	**0**	**0**	**0**	**0**	**38**	**931**	**10**	**0**	**979**	**979**	**0**	**17**	**13**	**0**	**30**	**72**	**17**	**0**	**0**	**89**	**119**	**1,098**
15:00	0	0	0	0	0	4	332	5	0	341	341	0	8	5	0	13	22	20	0	0	42	55	396
15:15	0	0	0	0	0	13	328	6	0	347	347	0	9	4	0	13	21	15	0	0	36	49	396
15:30	0	0	0	0	0	7	321	3	0	331	331	0	8	3	0	11	19	7	0	0	26	37	368
15:45	0	0	0	0	0	7	296	3	0	306	306	0	7	5	0	12	17	5	0	0	22	34	340
Total	**0**	**0**	**0**	**0**	**0**	**31**	**1,277**	**17**	**0**	**1,325**	**1,325**	**0**	**32**	**17**	**0**	**49**	**79**	**47**	**0**	**0**	**126**	**175**	**1,500**
16:00	0	0	0	0	0	5	345	4	0	354	354	0	6	2	0	8	13	6	0	0	19	27	381
16:15	0	0	0	0	0	11	356	4	0	371	371	0	8	1	0	9	10	6	0	0	16	25	396
16:30	0	0	0	0	0	5	327	5	0	337	337	0	9	9	0	18	15	4	0	0	19	37	374
16:45	0	0	0	0	0	5	362	4	0	371	371	0	4	2	0	6	16	11	0	0	27	33	404
Total	**0**	**0**	**0**	**0**	**0**	**26**	**1,390**	**17**	**0**	**1,433**	**1,433**	**0**	**27**	**14**	**0**	**41**	**54**	**27**	**0**	**0**	**81**	**122**	**1,555**
17:00	0	0	0	0	0	4	394	5	0	403	403	0	6	2	0	8	9	4	0	0	13	21	424
17:15	0	0	0	0	0	7	386	2	0	395	395	0	8	1	0	9	16	10	0	0	26	35	430
17:30	0	0	0	0	0	3	397	1	0	401	401	0	4	0	0	4	6	4	0	0	10	14	415
17:45	0	0	0	0	0	5	270	4	0	279	279	0	7	2	0	9	7	2	0	0	9	18	297
Total	**0**	**0**	**0**	**0**	**0**	**19**	**1,447**	**12**	**0**	**1,478**	**1,478**	**0**	**25**	**5**	**0**	**30**	**38**	**20**	**0**	**0**	**58**	**88**	**1,566**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Lake Alfred **COUNTY:** Polk County

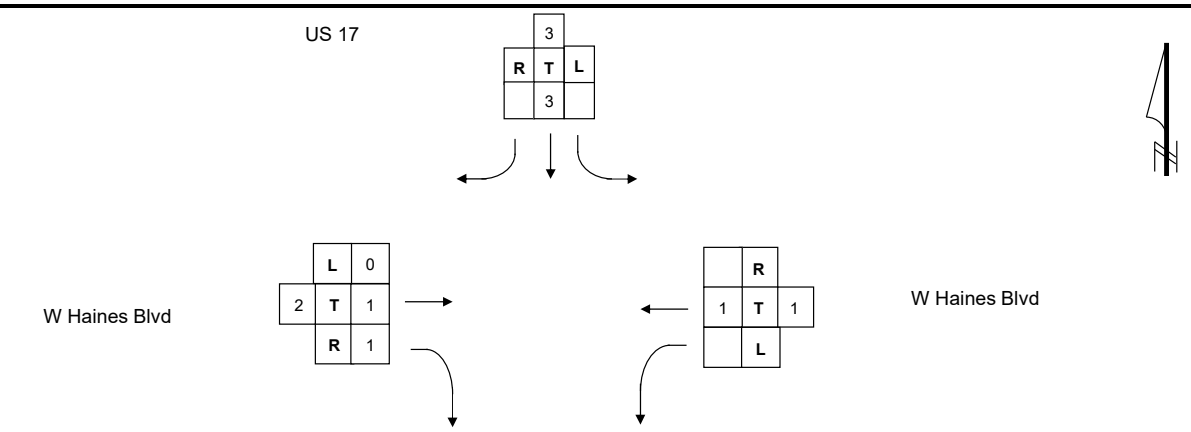
INTR ROUTE: W Haines Blvd **STATE ROUTE:** US 17

OBSERVER: Video Cam2 **DATE:** 05/01/19

WEATHER: Sunny - Clear **ROAD CONDITION:** Good - Dry

REMARKS: US 17 - Oneway - Southbound Only

FORM COMPLETED BY: TM **DATE:** 05/24/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	0	0	0	0	**0**	17	1,432	13	0	**1,462**	**1,462**	0	116	14	0	**130**	44	35	0	0	**79**	**209**
8 - 9	0	0	0	0	**0**	28	1,240	14	0	**1,282**	**1,282**	0	36	11	0	**47**	53	18	0	0	**71**	**118**
9 - 10	0	0	0	0	**0**	25	933	9	0	**967**	**967**	0	24	17	0	**41**	58	14	0	0	**72**	**113**
11 - 12	0	0	0	0	**0**	21	875	9	0	**905**	**905**	0	17	9	0	**26**	49	21	0	0	**70**	**96**
12 - 1	0	0	0	0	**0**	38	931	10	0	**979**	**979**	0	17	13	0	**30**	72	17	0	0	**89**	**119**
3 - 4	0	0	0	0	**0**	31	1,277	17	0	**1,325**	**1,325**	0	32	17	0	**49**	79	47	0	0	**126**	**175**
4 - 5	0	0	0	0	**0**	26	1,390	17	0	**1,433**	**1,433**	0	27	14	0	**41**	54	27	0	0	**81**	**122**
5 - 6	0	0	0	0	**0**	19	1,447	12	0	**1,478**	**1,478**	0	25	5	0	**30**	38	20	0	0	**58**	**88**
TOTAL	0	0	0	0		205	9,525	101	0	**9,831**	**9,831**	0	294	100	0	**394**	447	199	0	0	**646**	**1,040**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Lake Alfred **COUNTY:** Polk County
INTER. ROUTE: W Haines Blvd **STATE ROUTE:** US 17
OBSERVER: Video Cam2 **DATE:** 05/01/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/24/19

US 17

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	1	1	0	0	0	0	2	**5**
	0	0	0	0	0	0	1	**1**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	1	**1**
1	**1**	**1**	**0**	**0**	**0**	**0**	**4**	**7**

7-8	1	0	1	0	**2**
8-9	2	0	1	0	**3**
9-10	1	0	1	0	**2**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**4**	**0**	**3**	**0**	**7**

W Haines Blvd

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	1	0	0	0	**1**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**1**	**0**	**0**	**0**	**1**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	2	0	0	0	0	**2**
0	0	0	1	0	0	0	0	**1**
1	1	0	3	1	0	1	1	**8**
0	0	0	1	0	0	0	0	**1**
1	**1**	**0**	**7**	**1**	**0**	**1**	**1**	**12**

TURNING MOVEMENT COUNT: SR 544 @ US 27
EAST/WEST ST: SR 544
DATE: 05/02/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: US 27
COUNTED BY: Video Cam2

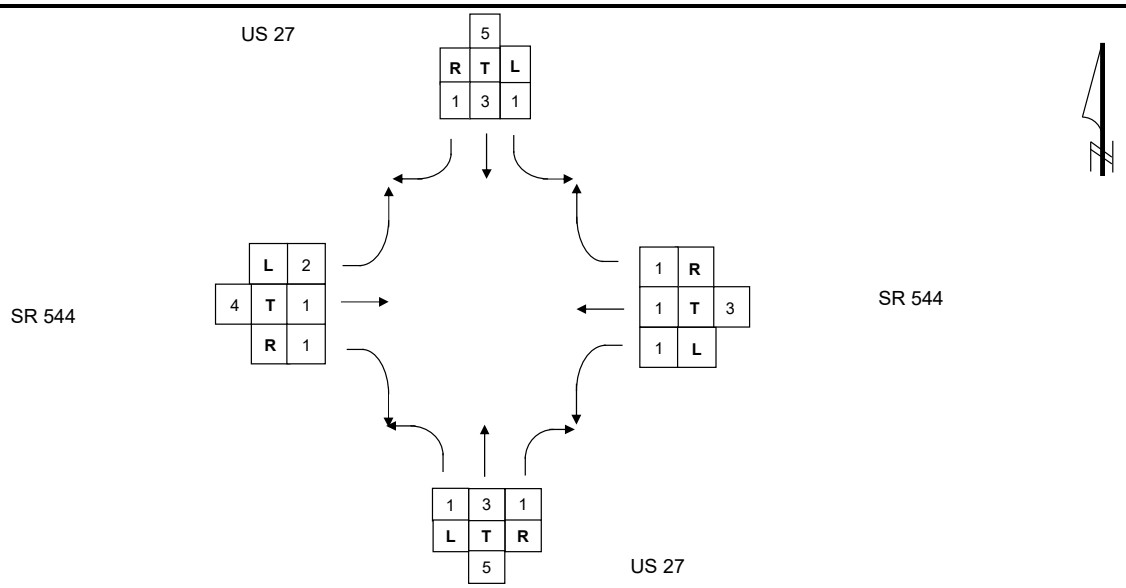
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	37	262	12	6	317	24	201	100	2	327	644	102	36	23	0	161	18	50	33	0	101	262	906
7:15	32	328	21	4	385	20	245	109	0	374	759	113	41	30	0	184	19	53	29	1	102	286	1,045
7:30	53	313	28	3	397	18	251	140	2	411	808	147	39	38	0	224	44	40	25	0	109	333	1,141
7:45	52	280	18	2	352	24	251	172	2	449	801	140	58	57	0	255	29	60	27	0	116	371	1,172
Total	**174**	**1,183**	**79**	**15**	**1,451**	**86**	**948**	**521**	**6**	**1,561**	**3,012**	**502**	**174**	**148**	**0**	**824**	**110**	**203**	**114**	**1**	**428**	**1,252**	**4,264**
8:00	46	281	13	3	343	36	251	126	4	417	760	117	25	36	0	178	19	50	27	0	96	274	1,034
8:15	38	235	22	3	298	22	225	122	3	372	670	133	31	21	0	185	24	33	18	0	75	260	930
8:30	37	251	11	2	301	30	219	89	2	340	641	126	43	24	0	193	23	30	28	0	81	274	915
8:45	42	181	19	2	244	35	243	91	6	375	619	84	42	26	0	152	25	48	33	0	106	258	877
Total	**163**	**948**	**65**	**10**	**1,186**	**123**	**938**	**428**	**15**	**1,504**	**2,690**	**460**	**141**	**107**	**0**	**708**	**91**	**161**	**106**	**0**	**358**	**1,066**	**3,756**
9:00	37	277	14	2	330	22	220	77	2	321	651	90	37	22	0	149	28	41	30	0	99	248	899
9:15	24	220	11	0	255	14	210	105	5	334	589	104	23	31	0	158	14	47	25	0	86	244	833
9:30	16	219	9	2	246	22	225	75	2	324	570	109	28	27	0	164	16	40	31	0	87	251	821
9:45	22	240	21	2	285	22	216	81	3	322	607	94	27	24	0	145	23	27	21	0	71	216	823
Total	**99**	**956**	**55**	**6**	**1,116**	**80**	**871**	**338**	**12**	**1,301**	**2,417**	**397**	**115**	**104**	**0**	**616**	**81**	**155**	**107**	**0**	**343**	**959**	**3,376**
11:00	20	206	8	0	234	23	206	117	5	351	585	109	36	28	0	173	21	32	21	0	74	247	832
11:15	38	238	7	2	285	22	234	111	7	374	659	79	36	36	0	151	11	22	17	0	50	201	860
11:30	24	218	11	3	256	19	221	105	1	346	602	110	52	27	0	189	22	34	16	0	72	261	863
11:45	17	224	13	3	257	41	185	109	3	338	595	116	30	30	0	176	13	33	17	0	63	239	834
Total	**99**	**886**	**39**	**8**	**1,032**	**105**	**846**	**442**	**16**	**1,409**	**2,441**	**414**	**154**	**121**	**0**	**689**	**67**	**121**	**71**	**0**	**259**	**948**	**3,389**
12:00	37	206	13	3	259	42	235	94	5	376	635	105	38	31	0	174	34	27	24	0	85	259	894
12:15	36	228	19	2	285	22	302	128	7	459	744	117	36	25	0	178	12	30	30	0	72	250	994
12:30	26	221	15	2	264	28	213	96	8	345	609	124	37	25	0	186	11	31	24	0	66	252	861
12:45	26	223	10	6	265	32	248	148	6	434	699	113	28	30	0	171	20	22	28	0	70	241	940
Total	**125**	**878**	**57**	**13**	**1,073**	**124**	**998**	**466**	**26**	**1,614**	**2,687**	**459**	**139**	**111**	**0**	**709**	**77**	**110**	**106**	**0**	**293**	**1,002**	**3,689**
15:00	31	245	19	6	301	31	255	127	1	414	715	162	37	33	0	232	26	41	21	0	88	320	1,035
15:15	44	265	12	5	326	24	271	108	3	406	732	125	50	33	0	208	21	43	32	0	96	304	1,036
15:30	34	290	23	2	349	30	286	148	1	465	814	123	45	30	0	198	24	34	28	0	86	284	1,098
15:45	26	262	26	5	319	37	288	142	5	472	791	126	28	31	0	185	21	40	21	0	82	267	1,058
Total	**135**	**1,062**	**80**	**18**	**1,295**	**122**	**1,100**	**525**	**10**	**1,757**	**3,052**	**536**	**160**	**127**	**0**	**823**	**92**	**158**	**102**	**0**	**352**	**1,175**	**4,227**
16:00	42	251	30	5	328	44	276	109	3	432	760	97	59	34	0	190	20	34	25	0	79	269	1,029
16:15	34	294	27	2	357	23	301	142	3	469	826	141	44	24	0	209	40	52	17	0	109	318	1,144
16:30	25	253	20	2	300	39	287	130	0	456	756	104	57	31	0	192	23	64	35	0	122	314	1,070
16:45	42	319	31	1	393	24	351	137	2	514	907	92	38	24	0	154	28	50	25	0	103	257	1,164
Total	**143**	**1,117**	**108**	**10**	**1,378**	**130**	**1,215**	**518**	**8**	**1,871**	**3,249**	**434**	**198**	**113**	**0**	**745**	**111**	**200**	**102**	**0**	**413**	**1,158**	**4,407**
17:00	28	299	36	5	368	18	264	121	1	404	772	140	50	32	0	222	27	48	26	0	101	323	1,095
17:15	38	340	22	4	404	40	346	138	2	526	930	131	55	30	0	216	28	28	18	0	74	290	1,220
17:30	28	308	26	6	368	40	332	143	1	516	884	135	60	35	0	230	17	39	29	0	85	315	1,199
17:45	24	272	17	0	313	33	313	133	3	482	795	79	31	15	0	125	24	22	9	0	55	180	975
Total	**118**	**1,219**	**101**	**15**	**1,453**	**131**	**1,255**	**535**	**7**	**1,928**	**3,381**	**485**	**196**	**112**	**0**	**793**	**96**	**137**	**82**	**0**	**315**	**1,108**	**4,489**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk County
INTR ROUTE: US 27 **STATE ROUTE:** SR 544
OBSERVER: Video Cam2 **DATE:** 05/02/19
WEATHER: Sunny - Clear (AM) Cloudy Rain (PM) **ROAD CONDITION:** Good- Dry (AM) Wet (PM)
REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/28/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	174	1,183	79	15	**1,451**	86	948	521	6	**1,561**	**3,012**	502	174	148	0	**824**	110	203	114	1	**428**	**1,252**
8 - 9	163	948	65	10	**1,186**	123	938	428	15	**1,504**	**2,690**	460	141	107	0	**708**	91	161	106	0	**358**	**1,066**
9 - 10	99	956	55	6	**1,116**	80	871	338	12	**1,301**	**2,417**	397	115	104	0	**616**	81	155	107	0	**343**	**959**
11 - 12	99	886	39	8	**1,032**	105	846	442	16	**1,409**	**2,441**	414	154	121	0	**689**	67	121	71	0	**259**	**948**
12 - 1	125	878	57	13	**1,073**	124	998	466	26	**1,614**	**2,687**	459	139	111	0	**709**	77	110	106	0	**293**	**1,002**
3 - 4	135	1,062	80	18	**1,295**	122	1,100	525	10	**1,757**	**3,052**	536	160	127	0	**823**	92	158	102	0	**352**	**1,175**
4 - 5	143	1,117	108	10	**1,378**	130	1,215	518	8	**1,871**	**3,249**	434	198	113	0	**745**	111	200	102	0	**413**	**1,158**
5 - 6	118	1,219	101	15	**1,453**	131	1,255	535	7	**1,928**	**3,381**	485	196	112	0	**793**	96	137	82	0	**315**	**1,108**
TOTAL	1,056	8,249	584	107	**9,996**	901	8,171	3,773	100	**12,945**	**22,941**	3,687	1,277	943	0	**5,907**	725	1,245	790	1	**2,761**	**8,668**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk County
INTER. ROUTE: US 27 **STATE ROUTE:** SR 544
OBSERVER: Video Cam2 **DATE:** 05/02/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/28/19

US 27

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	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**	**0**	**0**	**0**

7-8	0	0	0	1	**1**
8-9	1	0	2	0	**3**
9-10	0	0	0	0	**0**
11-12	0	0	0	1	**1**
12-1	0	1	0	0	**1**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**1**	**1**	**2**	**2**	**6**

SR 544

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	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**	**0**	**0**	**0**

US 27

TURNING MOVEMENT COUNT: US 17 @ Buena Vista Dr
EAST/WEST ST: Buena Vista Dr
DATE: 05/07/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: US 17
COUNTED BY: Video Cam2

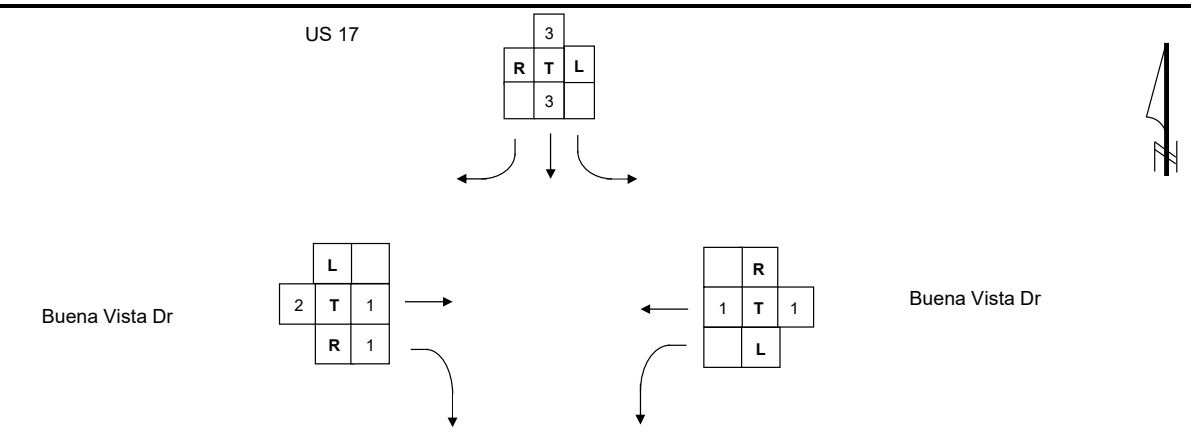
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	0	0	0	0	0	0	183	11	0	194	194	0	24	137	0	161	0	174	0	0	174	335	529
7:15	0	0	0	0	0	1	232	15	0	248	248	0	35	197	0	232	2	158	0	0	160	392	640
7:30	0	0	0	0	0	0	232	21	0	253	253	0	25	216	0	241	0	174	0	0	174	415	668
7:45	0	0	0	0	0	3	225	12	0	240	240	0	23	217	0	240	0	136	0	0	136	376	616
Total	**0**	**0**	**0**	**0**	**0**	**4**	**872**	**59**	**0**	**935**	**935**	**0**	**107**	**767**	**0**	**874**	**2**	**642**	**0**	**0**	**644**	**1,518**	**2,453**
8:00	0	0	0	0	0	1	198	11	0	210	210	0	19	164	0	183	0	125	0	0	125	308	518
8:15	0	0	0	0	0	1	199	19	0	219	219	0	32	152	0	184	0	122	0	0	122	306	525
8:30	0	0	0	0	0	1	158	25	0	184	184	0	22	162	0	184	0	127	0	0	127	311	495
8:45	0	0	0	0	0	0	160	21	0	181	181	0	24	141	0	165	2	118	0	0	120	285	466
Total	**0**	**0**	**0**	**0**	**0**	**3**	**715**	**76**	**0**	**794**	**794**	**0**	**97**	**619**	**0**	**716**	**2**	**492**	**0**	**0**	**494**	**1,210**	**2,004**
9:00	0	0	0	0	0	1	128	14	0	143	143	0	24	105	0	129	5	89	0	0	94	223	366
9:15	0	0	0	0	0	0	141	13	0	154	154	0	12	116	0	128	3	97	0	0	100	228	382
9:30	0	0	0	0	0	1	141	11	0	153	153	0	21	112	0	133	1	97	0	0	98	231	384
9:45	0	0	0	0	0	2	160	11	0	173	173	0	8	102	0	110	2	81	0	0	83	193	366
Total	**0**	**0**	**0**	**0**	**0**	**4**	**570**	**49**	**0**	**623**	**623**	**0**	**65**	**435**	**0**	**500**	**11**	**364**	**0**	**0**	**375**	**875**	**1,498**
11:00	0	0	0	0	0	3	127	14	0	144	144	0	15	73	0	88	2	98	0	0	100	188	332
11:15	0	0	0	0	0	1	122	9	0	132	132	0	15	84	0	99	6	96	0	0	102	201	333
11:30	0	0	0	0	0	0	139	11	0	150	150	0	18	69	0	87	3	114	0	0	117	204	354
11:45	0	0	0	0	0	0	130	15	0	145	145	0	18	95	0	113	5	82	0	0	87	200	345
Total	**0**	**0**	**0**	**0**	**0**	**4**	**518**	**49**	**0**	**571**	**571**	**0**	**66**	**321**	**0**	**387**	**16**	**390**	**0**	**0**	**406**	**793**	**1,364**
12:00	0	0	0	0	0	0	137	14	0	151	151	0	13	106	0	119	4	103	0	0	107	226	377
12:15	0	0	0	0	0	3	145	12	0	160	160	0	8	85	0	93	3	91	0	0	94	187	347
12:30	0	0	0	0	0	5	142	10	0	157	157	0	14	108	0	122	0	85	0	0	85	207	364
12:45	0	0	0	0	0	0	161	11	0	172	172	0	11	90	0	101	5	87	0	0	92	193	365
Total	**0**	**0**	**0**	**0**	**0**	**8**	**585**	**47**	**0**	**640**	**640**	**0**	**46**	**389**	**0**	**435**	**12**	**366**	**0**	**0**	**378**	**813**	**1,453**
15:00	0	0	0	0	0	2	174	17	0	193	193	0	25	167	0	192	9	123	0	0	132	324	517
15:15	0	0	0	0	0	3	198	13	0	214	214	0	20	159	0	179	3	116	0	0	119	298	512
15:30	0	0	0	0	0	1	202	11	0	214	214	0	14	136	0	150	2	122	0	0	124	274	488
15:45	0	0	0	0	0	2	191	13	0	206	206	0	24	175	0	199	2	123	0	0	125	324	530
Total	**0**	**0**	**0**	**0**	**0**	**8**	**765**	**54**	**0**	**827**	**827**	**0**	**83**	**637**	**0**	**720**	**16**	**484**	**0**	**0**	**500**	**1,220**	**2,047**
16:00	0	0	0	0	0	1	164	19	0	184	184	0	21	168	0	189	9	125	0	0	134	323	507
16:15	0	0	0	0	0	3	201	10	0	214	214	0	23	162	0	185	1	107	0	0	108	293	507
16:30	0	0	0	0	0	1	162	15	0	178	178	0	26	188	0	214	2	146	0	0	148	362	540
16:45	0	0	0	0	0	3	160	17	0	180	180	0	19	176	0	195	3	125	0	0	128	323	503
Total	**0**	**0**	**0**	**0**	**0**	**8**	**687**	**61**	**0**	**756**	**756**	**0**	**89**	**694**	**0**	**783**	**15**	**503**	**0**	**0**	**518**	**1,301**	**2,057**
17:00	0	0	0	0	0	0	227	13	0	240	240	0	27	212	0	239	3	136	0	0	139	378	618
17:15	0	0	0	0	0	2	220	17	0	239	239	0	26	179	0	205	2	154	0	0	156	361	600
17:30	0	0	0	0	0	1	209	14	0	224	224	0	19	193	0	212	1	123	0	0	124	336	560
17:45	0	0	0	0	0	2	187	9	0	198	198	0	16	214	0	230	1	120	0	0	121	351	549
Total	**0**	**0**	**0**	**0**	**0**	**5**	**843**	**53**	**0**	**901**	**901**	**0**	**88**	**798**	**0**	**886**	**7**	**533**	**0**	**0**	**540**	**1,426**	**2,327**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Lake Alfred **COUNTY:** Polk County
INTR ROUTE: Buena Vista Dr **STATE ROUTE:** US 17
OBSERVER: Video Cam2 **DATE:** 05/07/19
WEATHER: Sunny - Clear **ROAD CONDITION:** Good - Dry
REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/28/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	0	0	0	0	**0**	4	872	59	0	**935**	**935**	0	107	767	0	**874**	2	642	0	0	**644**	**1,518**
8 - 9	0	0	0	0	**0**	3	715	76	0	**794**	**794**	0	97	619	0	**716**	2	492	0	0	**494**	**1,210**
9 - 10	0	0	0	0	**0**	4	570	49	0	**623**	**623**	0	65	435	0	**500**	11	364	0	0	**375**	**875**
11 - 12	0	0	0	0	**0**	4	518	49	0	**571**	**571**	0	66	321	0	**387**	16	390	0	0	**406**	**793**
12 - 1	0	0	0	0	**0**	8	585	47	0	**640**	**640**	0	46	389	0	**435**	12	366	0	0	**378**	**813**
3 - 4	0	0	0	0	**0**	8	765	54	0	**827**	**827**	0	83	637	0	**720**	16	484	0	0	**500**	**1,220**
4 - 5	0	0	0	0	**0**	8	687	61	0	**756**	**756**	0	89	694	0	**783**	15	503	0	0	**518**	**1,301**
5 - 6	0	0	0	0	**0**	5	843	53	0	**901**	**901**	0	88	798	0	**886**	7	533	0	0	**540**	**1,426**
TOTAL	0	0	0	0		44	5,555	448	0	**6,047**	**6,047**	0	641	4,660	0	**5,301**	81	3,774	0	0	**3,855**	**9,156**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Lake Alfred **COUNTY:** Polk County
INTER. ROUTE: Buena Vista Dr **STATE ROUTE:** US 17
OBSERVER: Video Cam2 **DATE:** 05/07/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/28/19

US 17

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	1	0	0	1	**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**	**1**	**0**	**0**	**1**	**2**

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	3	0	0	0	**3**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**3**	**0**	**0**	**0**	**3**

Buena Vista Dr

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	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**	**0**	**0**	**0**

US 17

TURNING MOVEMENT COUNT: SR 17 @ E Hinson Ave
EAST/WEST ST: E Hinson Ave
DATE: 05/02/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: SR 17
COUNTED BY: Video Cam2

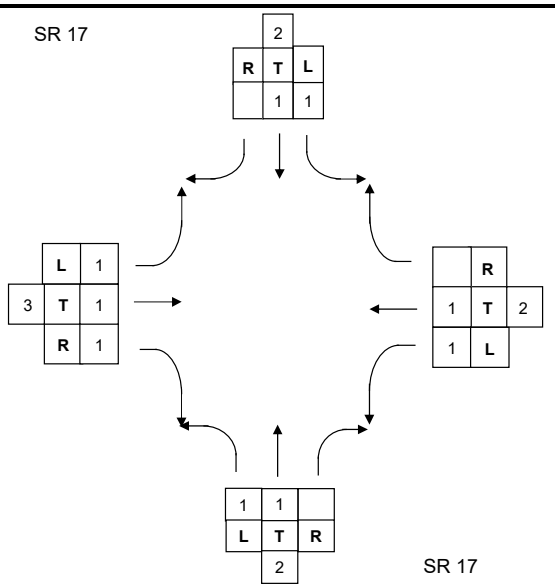
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	57	23	23	0	103	8	22	7	0	37	140	7	85	19	0	111	22	104	1	0	127	238	378
7:15	45	32	30	0	107	17	30	15	0	62	169	6	78	9	0	93	34	119	2	0	155	248	417
7:30	24	47	27	0	98	17	37	10	0	64	162	7	82	27	0	116	47	119	2	0	168	284	446
7:45	45	56	37	0	138	17	54	15	0	86	224	5	107	15	0	127	27	141	3	0	171	298	522
Total	**171**	**158**	**117**	**0**	**446**	**59**	**143**	**47**	**0**	**249**	**695**	**25**	**352**	**70**	**0**	**447**	**130**	**483**	**8**	**0**	**621**	**1,068**	**1,763**
8:00	42	37	23	0	102	8	36	13	0	57	159	13	117	24	0	154	33	111	1	0	145	299	458
8:15	28	22	27	0	77	10	39	11	0	60	137	9	91	29	0	129	29	105	2	0	136	265	402
8:30	36	29	39	0	104	10	38	7	0	55	159	9	90	33	0	132	33	99	1	0	133	265	424
8:45	37	26	30	0	93	8	35	14	0	57	150	12	115	18	0	145	34	96	3	0	133	278	428
Total	**143**	**114**	**119**	**0**	**376**	**36**	**148**	**45**	**0**	**229**	**605**	**43**	**413**	**104**	**0**	**560**	**129**	**411**	**7**	**0**	**547**	**1,107**	**1,712**
9:00	33	33	28	0	94	14	22	12	0	48	142	4	96	19	0	119	24	94	8	0	126	245	387
9:15	32	20	28	0	80	8	21	5	0	34	114	8	99	16	0	123	21	96	3	0	120	243	357
9:30	29	26	26	0	81	14	19	18	0	51	132	4	85	26	0	115	24	89	4	0	117	232	364
9:45	36	23	25	0	84	14	24	13	0	51	135	9	92	24	0	125	25	89	7	0	121	246	381
Total	**130**	**102**	**107**	**0**	**339**	**50**	**86**	**48**	**0**	**184**	**523**	**25**	**372**	**85**	**0**	**482**	**94**	**368**	**22**	**0**	**484**	**966**	**1,489**
11:00	43	34	20	0	97	18	23	15	0	56	153	15	103	21	0	139	16	98	5	0	119	258	411
11:15	41	21	26	0	88	14	40	15	0	69	157	12	75	17	0	104	32	102	2	0	136	240	397
11:30	44	23	25	0	92	12	28	9	0	49	141	6	102	28	0	136	31	103	1	0	135	271	412
11:45	22	23	25	0	70	16	32	12	0	60	130	8	111	20	0	139	28	117	4	0	149	288	418
Total	**150**	**101**	**96**	**0**	**347**	**60**	**123**	**51**	**0**	**234**	**581**	**41**	**391**	**86**	**0**	**518**	**107**	**420**	**12**	**0**	**539**	**1,057**	**1,638**
12:00	34	26	15	0	75	15	26	14	0	55	130	7	127	21	0	155	26	111	2	0	139	294	424
12:15	36	21	31	0	88	22	33	18	0	73	161	7	114	33	0	154	25	115	1	0	141	295	456
12:30	51	23	17	0	91	17	31	11	0	59	150	8	114	17	0	139	25	117	2	0	144	283	433
12:45	32	29	34	0	95	18	32	16	0	66	161	9	130	27	0	166	19	113	1	0	133	299	460
Total	**153**	**99**	**97**	**0**	**349**	**72**	**122**	**59**	**0**	**253**	**602**	**31**	**485**	**98**	**0**	**614**	**95**	**456**	**6**	**0**	**557**	**1,171**	**1,773**
15:00	45	37	24	0	106	28	48	14	0	90	196	10	121	32	0	163	41	127	2	0	170	333	529
15:15	39	38	36	0	113	19	51	17	0	87	200	7	139	27	0	173	36	135	1	0	172	345	545
15:30	38	32	41	0	111	27	54	21	0	102	213	15	140	34	0	189	25	102	0	0	127	316	529
15:45	29	28	40	0	97	20	49	18	0	87	184	5	141	38	0	184	40	134	1	0	175	359	543
Total	**151**	**135**	**141**	**0**	**427**	**94**	**202**	**70**	**0**	**366**	**793**	**37**	**541**	**131**	**0**	**709**	**142**	**498**	**4**	**0**	**644**	**1,353**	**2,146**
16:00	29	32	45	0	106	36	81	13	0	130	236	9	144	37	0	190	46	115	3	0	164	354	590
16:15	54	41	48	0	143	20	57	13	0	90	233	9	141	33	0	183	39	136	6	0	181	364	597
16:30	43	36	49	0	128	13	63	10	0	86	214	9	150	30	0	189	46	139	1	0	186	375	589
16:45	43	43	46	0	132	23	59	17	0	99	231	5	136	28	0	169	33	125	3	0	161	330	561
Total	**169**	**152**	**188**	**0**	**509**	**92**	**260**	**53**	**0**	**405**	**914**	**32**	**571**	**128**	**0**	**731**	**164**	**515**	**13**	**0**	**692**	**1,423**	**2,337**
17:00	41	36	41	0	118	31	57	14	0	102	220	11	159	35	0	205	32	123	3	0	158	363	583
17:15	45	35	42	0	122	32	73	12	0	117	239	2	143	29	0	174	35	118	4	0	157	331	570
17:30	36	25	39	0	100	12	51	15	0	78	178	7	164	39	0	210	42	142	2	0	186	396	574
17:45	42	25	32	0	99	36	45	11	0	92	191	6	153	21	0	180	45	132	0	0	177	357	548
Total	**164**	**121**	**154**	**0**	**439**	**111**	**226**	**52**	**0**	**389**	**828**	**26**	**619**	**124**	**0**	**769**	**154**	**515**	**9**	**0**	**678**	**1,447**	**2,275**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk County
INTR ROUTE: E Hinson Ave **STATE ROUTE:** SR 17
OBSERVER: Video Cam2 **DATE:** 05/02/19
WEATHER: Sunny - Clear **ROAD CONDITION:** Good - Dry
REMARKS:

FORM COMPLETED BY: TM **DATE:**



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	171	158	117	0	**446**	59	143	47	0	**249**	**695**	25	352	70	0	**447**	130	483	8	0	**621**	**1,068**
8 - 9	143	114	119	0	**376**	36	148	45	0	**229**	**605**	43	413	104	0	**560**	129	411	7	0	**547**	**1,107**
9 - 10	130	102	107	0	**339**	50	86	48	0	**184**	**523**	25	372	85	0	**482**	94	368	22	0	**484**	**966**
11 - 12	150	101	96	0	**347**	60	123	51	0	**234**	**581**	41	391	86	0	**518**	107	420	12	0	**539**	**1,057**
12 - 1	153	99	97	0	**349**	72	122	59	0	**253**	**602**	31	485	98	0	**614**	95	456	6	0	**557**	**1,171**
3 - 4	151	135	141	0	**427**	94	202	70	0	**366**	**793**	37	541	131	0	**709**	142	498	4	0	**644**	**1,353**
4 - 5	169	152	188	0	**509**	92	260	53	0	**405**	**914**	32	571	128	0	**731**	164	515	13	0	**692**	**1,423**
5 - 6	164	121	154	0	**439**	111	226	52	0	**389**	**828**	26	619	124	0	**769**	154	515	9	0	**678**	**1,447**
TOTAL	1,231	982	1,019	0	**3,232**	574	1,310	425	0	**2,309**	**5,541**	260	3,744	826	0	**4,830**	1,015	3,666	81	0	**4,762**	**9,592**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk County
INTER. ROUTE: E Hinson Ave **STATE ROUTE:** SR 17
OBSERVER: Video Cam2 **DATE:** 05/02/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/28/19

SR 17

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	1	0	0	0	0	**1**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	1	0	0	**1**
0	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**2**

7-8	0	0	1	0	**1**
8-9	0	0	0	0	**0**
9-10	1	0	0	0	**1**
11-12	1	0	1	0	**2**
12-1	1	0	0	0	**1**
3-4	2	0	0	0	**2**
4-5	0	0	0	0	**0**
5-6	0	0	0	0	**0**
Total	**5**	**0**	**2**	**0**	**7**

E Hinson Blvd

7-8	0	0	0	0	**0**
8-9	4	0	0	0	**4**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	0	**0**
3-4	0	0	0	0	**0**
4-5	0	0	1	0	**1**
5-6	0	0	0	0	**0**
Total	**4**	**0**	**1**	**0**	**5**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
0	0	1	0	0	0	0	0	**1**
0	0	0	0	0	0	0	1	**1**
0	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**2**

SR 17

TURNING MOVEMENT COUNT: US 17 @ Hinson Ave
EAST/WEST ST: Hinson Ave
DATE: 05/07/2019
ALL VEHICLES

TIME: 7am-6pm
NORTH/SOUTH ST: US 17
COUNTED BY: Video Cam2

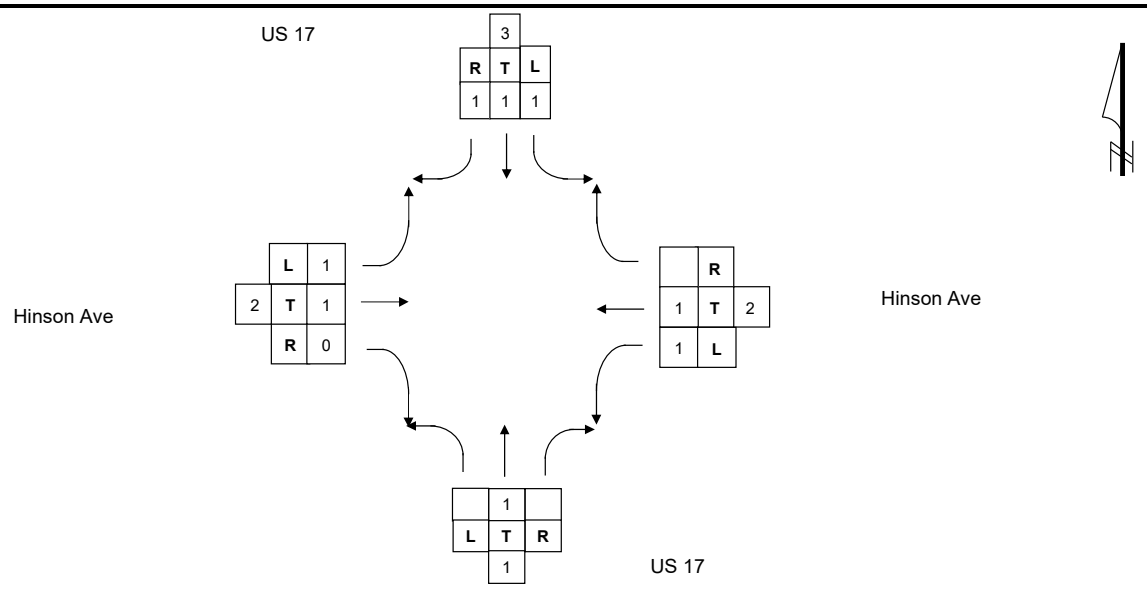
START	NORTHBOUND					SOUTHBOUND						EASTBOUND					WESTBOUND						GRAND
TIME	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	NS TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	EW TOTAL	TOTAL
7:00	4	5	0	0	9	13	2	79	0	94	103	80	39	6	0	125	1	63	39	0	103	228	331
7:15	5	2	0	0	7	14	5	58	0	77	84	88	42	1	0	131	2	89	29	0	120	251	335
7:30	1	5	1	0	7	26	1	89	0	116	123	91	55	1	0	147	0	89	39	0	128	275	398
7:45	4	8	1	0	13	22	4	87	0	113	126	82	60	4	0	146	1	98	29	0	128	274	400
Total	**14**	**20**	**2**	**0**	**36**	**75**	**12**	**313**	**0**	**400**	**436**	**341**	**196**	**12**	**0**	**549**	**4**	**339**	**136**	**0**	**479**	**1,028**	**1,464**
8:00	5	6	1	0	12	16	10	87	0	113	125	98	41	1	0	140	4	64	14	0	82	222	347
8:15	3	6	1	0	10	22	10	73	0	105	115	75	57	3	0	135	1	49	25	0	75	210	325
8:30	5	8	3	0	16	34	11	89	0	134	150	67	47	2	0	116	1	87	28	0	116	232	382
8:45	5	14	0	0	19	30	12	73	0	115	134	91	42	2	0	135	0	53	33	0	86	221	355
Total	**18**	**34**	**5**	**0**	**57**	**102**	**43**	**322**	**0**	**467**	**524**	**331**	**187**	**8**	**0**	**526**	**6**	**253**	**100**	**0**	**359**	**885**	**1,409**
9:00	5	14	3	0	22	16	8	68	0	92	114	81	33	1	0	115	1	61	37	0	99	214	328
9:15	5	7	6	0	18	14	13	56	0	83	101	78	39	2	0	119	1	67	19	0	87	206	307
9:30	8	10	0	0	18	9	7	60	0	76	94	89	48	2	0	139	1	60	16	0	77	216	310
9:45	1	7	2	0	10	13	7	78	0	98	108	77	38	6	0	121	3	57	10	0	70	191	299
Total	**19**	**38**	**11**	**0**	**68**	**52**	**35**	**262**	**0**	**349**	**417**	**325**	**158**	**11**	**0**	**494**	**6**	**245**	**82**	**0**	**333**	**827**	**1,244**
11:00	11	7	2	0	20	15	13	77	0	105	125	58	50	5	0	113	1	45	11	0	57	170	295
11:15	12	7	3	0	22	21	11	90	0	122	144	70	44	1	0	115	1	43	16	0	60	175	319
11:30	5	16	2	0	23	9	8	60	0	77	100	84	44	4	0	132	2	59	17	0	78	210	310
11:45	10	9	2	0	21	13	14	79	0	106	127	63	46	8	0	117	0	48	8	0	56	173	300
Total	**38**	**39**	**9**	**0**	**86**	**58**	**46**	**306**	**0**	**410**	**496**	**275**	**184**	**18**	**0**	**477**	**4**	**195**	**52**	**0**	**251**	**728**	**1,224**
12:00	18	17	1	0	36	12	14	66	0	92	128	73	57	9	0	139	2	50	9	0	61	200	328
12:15	8	13	4	0	25	11	16	91	0	118	143	82	57	8	0	147	1	45	12	0	58	205	348
12:30	6	11	0	0	17	21	8	92	0	121	138	68	49	4	0	121	1	45	14	0	60	181	319
12:45	6	7	1	0	14	20	6	73	0	99	113	96	55	2	0	153	1	56	17	0	74	227	340
Total	**38**	**48**	**6**	**0**	**92**	**64**	**44**	**322**	**0**	**430**	**522**	**319**	**218**	**23**	**0**	**560**	**5**	**196**	**52**	**0**	**253**	**813**	**1,335**
15:00	11	13	1	0	25	28	18	66	0	112	137	77	71	5	0	153	1	63	26	0	90	243	380
15:15	10	7	3	0	20	29	16	84	0	129	149	82	82	5	0	169	1	62	29	0	92	261	410
15:30	8	10	1	0	19	21	13	96	0	130	149	91	65	7	0	163	2	51	20	0	73	236	385
15:45	10	15	4	0	29	29	21	81	0	131	160	76	74	3	0	153	2	71	23	0	96	249	409
Total	**39**	**45**	**9**	**0**	**93**	**107**	**68**	**327**	**0**	**502**	**595**	**326**	**292**	**20**	**0**	**638**	**6**	**247**	**98**	**0**	**351**	**989**	**1,584**
16:00	9	7	2	0	18	36	25	88	0	149	167	78	85	2	0	165	2	74	27	0	103	268	435
16:15	4	15	2	0	21	37	28	90	0	155	176	84	89	4	0	177	0	67	35	0	102	279	455
16:30	14	13	1	0	28	29	22	95	0	146	174	93	80	2	0	175	2	51	26	0	79	254	428
16:45	6	8	3	0	17	27	18	88	0	133	150	95	89	1	0	185	0	77	21	0	98	283	433
Total	**33**	**43**	**8**	**0**	**84**	**129**	**93**	**361**	**0**	**583**	**667**	**350**	**343**	**9**	**0**	**702**	**4**	**269**	**109**	**0**	**382**	**1,084**	**1,751**
17:00	7	15	4	0	26	20	30	92	0	142	168	70	107	3	0	180	0	62	16	0	78	258	426
17:15	16	9	5	0	30	37	20	100	0	157	187	85	95	3	0	183	4	64	11	0	79	262	449
17:30	9	11	2	0	22	27	32	79	0	138	160	104	105	7	0	216	2	64	23	0	89	305	465
17:45	14	17	2	0	33	36	32	72	0	140	173	88	85	2	0	175	0	55	17	0	72	247	420
Total	**46**	**52**	**13**	**0**	**111**	**120**	**114**	**343**	**0**	**577**	**688**	**347**	**392**	**15**	**0**	**754**	**6**	**245**	**67**	**0**	**318**	**1,072**	**1,760**

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk
INTR ROUTE: Hinson Ave **STATE ROUTE:** US 17
OBSERVER: Video Cam2 **DATE:** 05/07/2019 **MILEPOST:**
WEATHER: Sunny - Clear **ROAD CONDITION:** Dry - Good
REMARKS:

FORM COMPLETED BY: TM **DATE:** 05/28/19



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	14	20	2	0	**36**	75	12	313	0	**400**	**436**	341	196	12	0	**549**	4	339	136	0	**479**	**1,028**
8 - 9	18	34	5	0	**57**	102	43	322	0	**467**	**524**	331	187	8	0	**526**	6	253	100	0	**359**	**885**
9 - 10	19	38	11	0	**68**	52	35	262	0	**349**	**417**	325	158	11	0	**494**	6	245	82	0	**333**	**827**
11 - 12	38	39	9	0	**86**	58	46	306	0	**410**	**496**	275	184	18	0	**477**	4	195	52	0	**251**	**728**
12 - 1	38	48	6	0	**92**	64	44	322	0	**430**	**522**	319	218	23	0	**560**	5	196	52	0	**253**	**813**
3 - 4	39	45	9	0	**93**	107	68	327	0	**502**	**595**	326	292	20	0	**638**	6	247	98	0	**351**	**989**
4 - 5	33	43	8	0	**84**	129	93	361	0	**583**	**667**	350	343	9	0	**702**	4	269	109	0	**382**	**1,084**
5 - 6	46	52	13	0	**111**	120	114	343	0	**577**	**688**	347	392	15	0	**754**	6	245	67	0	**318**	**1,072**
TOTAL	245	319	63	0	**627**	707	455	2,556	0	**3,718**	**4,345**	2,614	1,970	116	0	**4,700**	41	1,989	696	0	**2,726**	**7,426**

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A **CITY:** Haines City **COUNTY:** Polk County
INTER. ROUTE: Hinson Ave **STATE ROUTE:** US 17
OBSERVER: Video Cam2 **DATE:** 05/07/19

REMARKS: _____

FORM COMPLETED BY: TM **DATE:** 05/28/19

US 17

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	**0**
0	0	0	0	0	0	0	0	**0**
0	0	0	0	2	0	0	0	**2**
0	0	0	0	0	0	0	0	**0**
0	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**

7-8	0	0	1	0	**1**
8-9	0	1	0	0	**1**
9-10	0	0	0	0	**0**
11-12	1	0	1	0	**2**
12-1	0	0	0	0	**0**
3-4	1	0	0	0	**1**
4-5	0	0	2	0	**2**
5-6	0	0	0	0	**0**
Total	**2**	**1**	**4**	**0**	**7**

Hinson Ave

7-8	0	0	0	0	**0**
8-9	0	0	0	0	**0**
9-10	0	0	0	0	**0**
11-12	0	0	0	0	**0**
12-1	0	0	0	1	**1**
3-4	2	0	0	0	**2**
4-5	0	0	1	0	**1**
5-6	0	0	0	0	**0**
Total	**2**	**0**	**1**	**1**	**4**

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	2	1	**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	0	**0**
0	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**3**

US 17

Station Name: WB US 17 -ON- Ramp to SB US 27
Description: US 17 WB- ON- Ramp to SB US 27 # 1 - ADR #28
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: WB US 17 -ON- Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	6	2	2	3	2	9	20	23	55	22	36	36
30	2	6	3	4	4	4	19	36	27	34	32	25
45	7	3	1	3	7	10	29	54	37	38	26	45
00	6	2	7	6	10	8	31	44	36	27	31	39
Hr Total	**21**	**13**	**13**	**16**	**23**	**31**	**99**	**157**	**155**	**121**	**125**	**145**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	46	37	54	48	46	74	32	36	33	20	17	10
30	35	45	44	49	57	61	36	31	23	34	11	11
45	25	43	40	50	41	51	28	36	21	25	14	11
00	51	28	44	44	61	43	36	25	24	13	12	4
Hr Total	**157**	**153**	**182**	**191**	**205**	**229**	**132**	**128**	**101**	**92**	**54**	**36**
24 Hour Total :			**2579**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			189	**AM Peak Hour Factor :**				0.86
PM Peak Hour Begins :			16:45	**PM Peak Volume :**			247	**PM Peak Hour Factor :**				0.83

Station Name: WB US 17 -ON- Ramp to SB US 27
Description: US 17 WB- ON- Ramp to SB US 27 # 1 - ADR #28
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: WB US 17 -ON- Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	7	2	5	2	4	7	17	43	42	42	39	28
30	3	3	2	0	9	11	25	34	29	35	40	22
45	7	2	2	5	6	10	23	55	35	36	28	45
00	2	4	3	2	12	10	22	45	24	38	46	36
Hr Total	**19**	**11**	**12**	**9**	**31**	**38**	**87**	**177**	**130**	**151**	**153**	**131**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	35	36	52	63	42	59	38	33	27	36	12	10
30	26	43	40	46	65	48	39	29	29	18	13	5
45	39	36	62	42	55	50	46	25	30	17	13	8
00	26	30	48	50	43	27	39	23	24	18	7	8
Hr Total	**126**	**145**	**202**	**201**	**205**	**184**	**162**	**110**	**110**	**89**	**45**	**31**
24 Hour Total :			**2559**									
AM Peak Hour Begins :			7:00	**AM Peak Volume :**			177	**AM Peak Hour Factor :**				0.8
PM Peak Hour Begins :			16:15	**PM Peak Volume :**			222	**PM Peak Hour Factor :**				0.85

Station Name: WB US 17 -ON- Ramp to SB US 27
Description: US 17 WB- ON- Ramp to SB US 27 # 1 - ADR #28
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: WB US 17 -ON- Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	3	6	8	2	6	9	15	40	50	50	43	40
30	4	3	4	0	2	8	17	37	32	42	36	37
45	4	6	2	3	3	10	29	64	38	40	31	40
00	6	1	4	0	8	17	31	54	37	39	21	41
Hr Total	**17**	**16**	**18**	**5**	**19**	**44**	**92**	**195**	**157**	**171**	**131**	**158**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	38	45	52	52	54	58	50	36	24	22	13	9
30	40	32	47	43	60	45	40	47	27	25	15	9
45	38	33	37	58	45	63	41	31	20	19	12	6
00	48	32	63	45	48	37	43	17	25	17	6	3
Hr Total	**164**	**142**	**199**	**198**	**207**	**203**	**174**	**131**	**96**	**83**	**46**	**27**
24 Hour Total :			**2693**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			205	**AM Peak Hour Factor :**				0.8
PM Peak Hour Begins :			15:30	**PM Peak Volume :**			217	**PM Peak Hour Factor :**				0.86

Station Name: US 27 SB -OFF- Ramp to WB US 17
Description: US 27 SB -Off- Ramp to WB US 17 # 2 - ADR #28
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 5/7/2019	Station Name: US 27 SB OFF Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	11	7	9	3	6	8	27	71	52	53	66	78
30	13	11	4	8	8	21	35	68	60	59	76	73
45	10	5	7	9	12	18	74	84	69	75	79	71
00	12	14	5	4	5	20	68	68	61	69	74	82
Hr Total	**46**	**37**	**25**	**24**	**31**	**67**	**204**	**291**	**242**	**256**	**295**	**304**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	70	66	104	94	76	102	100	54	37	23	30	21
30	55	84	86	106	84	88	49	62	28	27	22	17
45	75	89	107	94	75	86	69	41	37	22	20	22
00	87	81	88	87	79	70	62	51	33	26	23	20
Hr Total	**287**	**320**	**385**	**381**	**314**	**346**	**280**	**208**	**135**	**98**	**95**	**80**

24 Hour Total :	**4751**				
AM Peak Hour Begins :	10:15	**AM Peak Volume :**	307	**AM Peak Hour Factor :**	0.91
PM Peak Hour Begins :	14:30	**PM Peak Volume :**	395	**PM Peak Hour Factor :**	0.92

Station Name: US 27 SB -OFF- Ramp to WB US 17
Description: US 27 SB -Off- Ramp to WB US 17 #2 - ADR # 28
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 5/8/2019	Station Name: US 27 SB OFF Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	7	18	5	7	3	18	27	68	96	56	83	68
30	9	5	3	0	11	14	36	60	76	73	51	73
45	15	7	12	7	1	9	58	74	52	80	60	76
00	13	7	9	8	8	29	51	58	80	63	89	102
Hr Total	**44**	**37**	**29**	**22**	**23**	**70**	**172**	**260**	**304**	**272**	**283**	**319**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	72	88	91	87	101	88	62	50	44	24	24	18
30	95	96	86	113	99	85	61	41	32	30	19	16
45	58	77	92	79	90	82	51	52	33	29	28	17
00	79	90	106	96	111	59	67	24	46	23	26	13
Hr Total	**304**	**351**	**375**	**375**	**401**	**314**	**241**	**167**	**155**	**106**	**97**	**64**
24 Hour Total :			**4785**									
AM Peak Hour Begins :			10:45	**AM Peak Volume :**			306	**AM Peak Hour Factor :**				0.75
PM Peak Hour Begins :			16:00	**PM Peak Volume :**			401	**PM Peak Hour Factor :**				0.89

Station Name: US 27 SB -OFF- Ramp to WB US 17
Description: US 27 SB -Off- Ramp to WB US 17 #2 - ADR #28
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 5/9/2019	Station Name: US 27 SB OFF Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	19	5	6	1	10	8	33	51	69	64	86	68
30	7	4	11	1	10	27	26	71	56	67	58	82
45	14	7	14	6	11	20	51	54	64	76	73	71
00	15	2	9	4	7	20	57	61	53	71	78	87
Hr Total	**55**	**18**	**40**	**12**	**38**	**75**	**167**	**237**	**242**	**278**	**295**	**308**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	74	72	83	93	79	99	68	55	42	42	19	16
30	89	73	91	92	87	78	61	41	41	42	30	18
45	81	61	102	74	97	95	58	48	30	17	34	18
00	76	94	72	93	73	73	53	39	46	26	21	23
Hr Total	**320**	**300**	**348**	**352**	**336**	**345**	**240**	**183**	**159**	**127**	**104**	**75**
24 Hour Total :			**4654**									
AM Peak Hour Begins :			10:30	**AM Peak Volume :**			301	**AM Peak Hour Factor :**				0.86
PM Peak Hour Begins :			13:45	**PM Peak Volume :**			370	**PM Peak Hour Factor :**				0.91

Station Name: US 17 EB - ON-Ramp to SB US 27
Description: US 17 EB -ON- Ramp to SB US 27 #3 - ADR # 43
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name:US 17 EB -ON-Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	5	1	7	0	5	19	28	61	69	37	35	47
30	9	2	5	4	8	11	43	69	59	47	43	54
45	4	0	2	2	6	16	41	73	43	42	35	46
00	2	1	4	4	3	17	59	90	48	51	34	35
Hr Total	**20**	**4**	**18**	**10**	**22**	**63**	**171**	**293**	**219**	**177**	**147**	**182**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	24	40	30	61	53	65	44	27	15	13	9	8
30	32	38	43	54	75	49	47	10	21	13	6	5
45	36	52	52	55	70	54	26	27	14	18	13	9
00	29	36	51	61	38	35	35	21	15	14	8	5
Hr Total	**121**	**166**	**176**	**231**	**236**	**203**	**152**	**85**	**65**	**58**	**36**	**27**

24 Hour Total :	**2882**				
AM Peak Hour Begins :	7:15	**AM Peak Volume :**	301	**AM Peak Hour Factor :**	0.84
PM Peak Hour Begins :	15:45	**PM Peak Volume :**	259	**PM Peak Hour Factor :**	0.86

Station Name: US 17 EB - ON-Ramp to SB US 27
Description: US 17 EB -ON- Ramp to SB US 27 #3 - ADR # 43
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name:US 17 EB -ON-Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	3	2	2	2	7	13	23	66	62	29	37	50
30	6	4	0	0	6	7	34	84	50	37	36	47
45	4	2	6	7	5	18	38	94	54	25	47	28
00	3	1	3	5	6	17	45	83	44	20	35	34
Hr Total	**16**	**9**	**11**	**14**	**24**	**55**	**140**	**327**	**210**	**111**	**155**	**159**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	47	42	57	54	51	78	49	21	20	9	13	7
30	47	42	43	57	67	61	42	26	16	13	7	9
45	50	45	45	44	72	51	31	33	13	8	12	4
00	43	40	45	53	59	48	29	23	17	11	14	3
Hr Total	**187**	**169**	**190**	**208**	**249**	**238**	**151**	**103**	**66**	**41**	**46**	**23**
24 Hour Total :			**2902**									
AM Peak Hour Begins :			7:00	**AM Peak Volume :**			327	**AM Peak Hour Factor :**				0.87
PM Peak Hour Begins :			16:15	**PM Peak Volume :**			276	**PM Peak Hour Factor :**				0.88

Station Name: US 17 EB - ON-Ramp to SB US 27
Description: US 17 EB -ON- Ramp to SB US 27 #3 - ADR # 43
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name:US 17 EB -ON-Ramp to SB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	2	0	5	0	5	9	18	45	64	53	54	26
30	3	3	5	4	5	17	37	76	56	43	47	30
45	3	1	1	5	9	20	36	77	66	27	49	41
00	2	0	1	6	2	22	52	83	42	43	40	39
Hr Total	**10**	**4**	**12**	**15**	**21**	**68**	**143**	**281**	**228**	**166**	**190**	**136**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	55	38	48	65	65	60	43	29	21	15	2	6
30	25	40	49	74	65	60	37	20	18	12	7	13
45	35	39	41	53	76	47	39	13	15	14	14	6
00	44	34	42	58	53	39	27	15	19	10	8	3
Hr Total	**159**	**151**	**180**	**250**	**259**	**206**	**146**	**77**	**73**	**51**	**31**	**28**
24 Hour Total :			**2885**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			300	**AM Peak Hour Factor :**				0.9
PM Peak Hour Begins :			15:45	**PM Peak Volume :**			264	**PM Peak Hour Factor :**				0.87

Station Name: US 27 SB -OFF- Ramp to EB US 17
Description: US 27 SB OFF Ramp to EB US 17 #4 - ADR #88
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: US 27 SB OFF Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	12	9	3	1	5	14	19	26	41	31	50	43
30	8	3	4	3	9	9	27	26	52	35	49	63
45	13	3	6	4	4	14	32	30	54	44	39	51
00	11	4	2	1	5	6	27	48	46	39	50	53
Hr Total	**44**	**19**	**15**	**9**	**23**	**43**	**105**	**130**	**193**	**149**	**188**	**210**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	61	45	63	71	52	68	58	58	43	45	23	12
30	52	58	66	55	71	69	61	67	35	39	18	20
45	45	67	44	65	66	62	44	39	42	34	17	14
00	62	74	69	64	64	58	62	54	38	22	17	8
Hr Total	**220**	**244**	**242**	**255**	**253**	**257**	**225**	**218**	**158**	**140**	**75**	**54**
24 Hour Total :			**3469**									
AM Peak Hour Begins :			10:45	**AM Peak Volume :**			207	**AM Peak Hour Factor :**				0.82
PM Peak Hour Begins :			13:30	**PM Peak Volume :**			270	**PM Peak Hour Factor :**				0.91

Station Name: US 27 SB -OFF- Ramp to EB US 17
Description: US 27 SB OFF Ramp to EB US 17 #4 - ADR #88
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: US 27 SB OFF Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	12	4	4	2	3	5	16	17	53	35	58	53
30	7	8	10	4	3	7	28	26	55	39	39	55
45	5	4	5	10	1	9	35	23	43	49	48	43
00	8	4	6	5	6	6	28	36	55	37	52	76
Hr Total	**32**	**20**	**25**	**21**	**13**	**27**	**107**	**102**	**206**	**160**	**197**	**227**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	62	61	46	44	63	65	53	54	39	25	30	19
30	43	76	72	56	70	73	67	49	32	31	23	10
45	61	44	64	69	75	70	46	44	43	35	25	10
00	56	58	72	66	87	57	49	55	37	26	15	18
Hr Total	**222**	**239**	**254**	**235**	**295**	**265**	**215**	**202**	**151**	**117**	**93**	**57**

24 Hour Total :	**3482**				
AM Peak Hour Begins :	10:30	**AM Peak Volume :**	208	**AM Peak Hour Factor :**	0.68
PM Peak Hour Begins :	16:30	**PM Peak Volume :**	300	**PM Peak Hour Factor :**	0.86

Station Name: US 27 SB -OFF- Ramp to EB US 17
Description: US 27 SB OFF Ramp to EB US 17 #4 - ADR #88
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: US 27 SB OFF Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	11	10	5	6	3	17	22	29	52	33	49	48
30	12	3	7	7	4	7	28	30	40	40	62	41
45	13	4	6	6	5	14	40	32	53	39	57	54
00	15	9	10	3	6	8	28	36	36	55	49	64
Hr Total	**51**	**26**	**28**	**22**	**18**	**46**	**118**	**127**	**181**	**167**	**217**	**207**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	62	58	52	67	56	69	56	65	48	38	18	12
30	61	67	71	75	76	62	67	55	39	28	18	22
45	53	50	67	58	66	72	56	49	31	23	20	14
00	51	59	81	52	78	61	45	42	26	18	9	16
Hr Total	**227**	**234**	**271**	**252**	**276**	**264**	**224**	**211**	**144**	**107**	**65**	**64**
24 Hour Total :			**3547**									
AM Peak Hour Begins :			9:45	**AM Peak Volume :**			223	**AM Peak Hour Factor :**				0.87
PM Peak Hour Begins :			14:30	**PM Peak Volume :**			290	**PM Peak Hour Factor :**				0.9

Station Name: EB US 17 -ON- Ramp to NB US 27
Description: EB US 17 ON Ramp to NB US 27 #5 - ADR #33
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: EB US 17 ON Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	5	2	6	12	9	27	56	72	91	63	80	65
30	8	8	11	6	15	27	68	71	89	51	79	64
45	7	6	3	11	13	31	96	112	77	81	49	81
00	1	5	4	11	18	52	78	113	91	68	77	73
Hr Total	**21**	**21**	**24**	**40**	**55**	**137**	**298**	**368**	**348**	**263**	**285**	**283**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	72	83	59	104	58	87	53	51	33	28	20	13
30	66	66	98	71	72	81	45	46	35	20	17	5
45	102	79	78	72	91	69	46	25	29	20	15	10
00	90	77	79	70	68	59	43	27	34	25	11	18
Hr Total	**330**	**305**	**314**	**317**	**289**	**296**	**187**	**149**	**131**	**93**	**63**	**46**
24 Hour Total :			**4663**									
AM Peak Hour Begins :			7:30	**AM Peak Volume :**			405	**AM Peak Hour Factor :**				0.9
PM Peak Hour Begins :			14:15	**PM Peak Volume :**			359	**PM Peak Hour Factor :**				0.86

Station Name: EB US 17 -ON- Ramp to NB US 27
Description: EB US 17 ON Ramp to NB US 27 #5 - ADR #33
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: EB US 17 ON Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	2	7	7	11	4	29	76	84	84	88	72	84
30	7	2	6	9	27	31	69	73	84	75	63	75
45	6	10	12	11	14	30	77	90	95	70	80	86
00	7	4	7	9	16	63	65	110	88	75	86	90
Hr Total	**22**	**23**	**32**	**40**	**61**	**153**	**287**	**357**	**351**	**308**	**301**	**335**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	74	58	62	67	55	83	48	41	29	18	20	6
30	71	89	72	77	69	79	41	42	35	29	17	5
45	81	69	62	76	111	62	41	52	33	13	17	9
00	91	77	91	77	55	69	36	53	44	19	16	11
Hr Total	**317**	**293**	**287**	**297**	**290**	**293**	**166**	**188**	**141**	**79**	**70**	**31**
24 Hour Total :			**4722**									
AM Peak Hour Begins :			7:45	**AM Peak Volume :**			373	**AM Peak Hour Factor :**				0.85
PM Peak Hour Begins :			16:30	**PM Peak Volume :**			328	**PM Peak Hour Factor :**				0.74

Station Name: EB US 17 -ON- Ramp to NB US 27
Description: EB US 17 ON Ramp to NB US 27 #5 - ADR #33
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: EB US 17 ON Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	4	4	6	10	6	34	54	80	106	63	82	67
30	13	2	2	11	13	30	66	71	69	82	73	77
45	5	6	4	12	20	34	78	89	86	95	76	51
00	2	4	6	12	22	49	82	109	71	65	68	78
Hr Total	**24**	**16**	**18**	**45**	**61**	**147**	**280**	**349**	**332**	**305**	**299**	**273**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	94	85	75	70	51	73	43	45	33	31	13	13
30	81	72	81	80	78	76	50	43	18	24	11	14
45	81	80	72	69	52	70	32	35	30	23	20	9
00	70	65	88	75	95	56	39	44	40	29	16	4
Hr Total	**326**	**302**	**316**	**294**	**276**	**275**	**164**	**167**	**121**	**107**	**60**	**40**
24 Hour Total :			**4597**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			375	**AM Peak Hour Factor :**				0.86
PM Peak Hour Begins :			12:00	**PM Peak Volume :**			326	**PM Peak Hour Factor :**				0.86

Station Name: NB US 27 -OFF- Ramp to EB US 17
Description: NB US 27 -OFF- Ramp to EB US 17 #6 -ADR 78
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: NB US 27 -OFF- Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	2	3	2	7	4	8	21	37	57	44	37	34
30	5	4	3	2	10	20	41	55	47	35	49	39
45	7	5	1	4	5	16	46	60	30	38	45	53
00	4	2	2	3	8	21	39	66	41	36	30	57
Hr Total	**18**	**14**	**8**	**16**	**27**	**65**	**147**	**218**	**175**	**153**	**161**	**183**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	51	45	63	50	49	51	40	24	23	16	7	15
30	46	57	58	55	61	64	37	31	22	15	10	5
45	44	55	54	68	55	46	38	37	17	14	11	12
00	52	49	58	50	44	42	30	24	18	17	10	6
Hr Total	**193**	**206**	**233**	**223**	**209**	**203**	**145**	**116**	**80**	**62**	**38**	**38**
24 Hour Total :			**2931**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			238	**AM Peak Hour Factor :**				0.9
PM Peak Hour Begins :			14:00	**PM Peak Volume :**			233	**PM Peak Hour Factor :**				0.86

Station Name: NB US 27 -OFF- Ramp to EB US 17
Description: NB US 27 -OFF- Ramp to EB US 17 #6 -ADR 78
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: NB US 27 -OFF- Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	5	7	7	4	3	12	21	40	54	40	47	49
30	5	1	8	1	4	20	40	48	45	37	43	41
45	5	3	6	4	9	18	34	57	38	34	42	44
00	5	3	9	7	7	30	40	56	57	35	37	58
Hr Total	**20**	**14**	**30**	**16**	**23**	**80**	**135**	**201**	**194**	**146**	**169**	**192**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	38	56	62	55	57	48	41	33	29	25	15	12
30	48	54	53	52	43	50	50	32	24	16	17	10
45	60	44	45	55	59	54	50	35	20	10	11	9
00	37	38	55	74	50	55	40	27	18	17	8	9
Hr Total	**183**	**192**	**215**	**236**	**209**	**207**	**181**	**127**	**91**	**68**	**51**	**40**
24 Hour Total :			**3020**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			215	**AM Peak Hour Factor :**				0.93
PM Peak Hour Begins :			15:15	**PM Peak Volume :**			238	**PM Peak Hour Factor :**				0.8

Station Name: NB US 27 -OFF- Ramp to EB US 17
Description: NB US 27 -OFF- Ramp to EB US 17 #6 -ADR 78
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: NB US 27 -OFF- Ramp to EB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	8	0	6	4	2	12	25	38	63	49	63	41
30	3	1	8	1	6	12	39	59	52	46	50	51
45	2	1	4	1	8	24	41	53	42	38	40	42
00	6	1	4	4	7	21	46	51	59	52	48	49
Hr Total	**19**	**3**	**22**	**10**	**23**	**69**	**151**	**201**	**216**	**185**	**201**	**183**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	45	37	52	51	46	49	41	35	15	25	14	6
30	36	57	42	44	68	62	40	36	26	25	10	8
45	44	43	45	64	48	59	35	34	21	24	14	5
00	47	52	50	54	70	51	35	23	23	12	6	8
Hr Total	**172**	**189**	**189**	**213**	**232**	**221**	**151**	**128**	**85**	**86**	**44**	**27**

24 Hour Total :	**3020**				
AM Peak Hour Begins :	7:15	**AM Peak Volume :**	226	**AM Peak Hour Factor :**	0.9
PM Peak Hour Begins :	16:45	**PM Peak Volume :**	240	**PM Peak Hour Factor :**	0.86

Station Name: WB US 17 -ON- Ramp to NB US 27
Description: WB US 17 -ON- Ramp to NB US 27 #7 - ADR# 87
City: Haines City
County:Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: WB US 17 -ON- Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	0	4	1	10	8	30	50	52	52	45	69	62
30	4	7	5	9	14	33	52	44	54	48	48	49
45	3	8	3	4	7	53	52	44	58	57	57	48
00	1	5	3	4	28	48	45	48	51	73	58	62
Hr Total	**8**	**24**	**12**	**27**	**57**	**164**	**199**	**188**	**215**	**223**	**232**	**221**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	66	60	62	60	68	57	40	30	25	19	24	12
30	62	70	72	60	77	54	29	33	40	23	11	15
45	56	81	67	55	54	56	45	35	28	26	10	9
00	57	50	59	67	69	42	44	51	33	21	21	4
Hr Total	**241**	**261**	**260**	**242**	**268**	**209**	**158**	**149**	**126**	**89**	**66**	**40**
24 Hour Total :			**3679**									
AM Peak Hour Begins :			9:15	**AM Peak Volume :**			247	**AM Peak Hour Factor :**				0.85
PM Peak Hour Begins :			12:45	**PM Peak Volume :**			268	**PM Peak Hour Factor :**				0.83

Station Name: WB US 17 -ON- Ramp to NB US 27
Description: WB US 17 -ON- Ramp to NB US 27 #7 - ADR# 87
City: Haines City
County:Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: WB US 17 -ON- Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	4	2	6	7	6	33	38	56	45	69	47	66
30	4	10	2	7	14	39	54	45	42	64	66	66
45	1	4	1	8	16	36	40	53	58	51	53	65
00	4	4	2	8	22	52	45	50	50	55	82	63
Hr Total	**13**	**20**	**11**	**30**	**58**	**160**	**177**	**204**	**195**	**239**	**248**	**260**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	74	62	68	68	62	58	57	40	64	32	26	10
30	55	63	65	68	67	50	52	31	38	31	16	10
45	65	83	56	64	57	58	53	31	32	29	15	7
00	59	67	67	60	45	42	47	41	36	19	15	5
Hr Total	**253**	**275**	**256**	**260**	**231**	**208**	**209**	**143**	**170**	**111**	**72**	**32**
24 Hour Total :			**3835**									
AM Peak Hour Begins :			10:45	**AM Peak Volume :**			279	**AM Peak Hour Factor :**				0.85
PM Peak Hour Begins :			13:30	**PM Peak Volume :**			283	**PM Peak Hour Factor :**				0.85

Station Name: WB US 17 -ON- Ramp to NB US 27
Description: WB US 17 -ON- Ramp to NB US 27 #7 - ADR# 87
City: Haines City
County:Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: WB US 17 -ON- Ramp to NB US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	8	4	2	5	14	34	53	64	56	55	51	60
30	8	4	3	8	15	27	52	50	55	52	52	55
45	5	2	0	12	13	37	56	60	63	46	55	62
00	1	1	3	5	14	53	51	46	60	53	53	59
Hr Total	**22**	**11**	**8**	**30**	**56**	**151**	**212**	**220**	**234**	**206**	**211**	**236**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	70	60	52	62	59	74	47	42	41	25	20	11
30	51	69	51	53	79	60	31	43	34	20	23	7
45	70	52	71	47	65	56	39	39	28	19	14	10
00	60	56	59	59	33	46	50	42	30	26	15	7
Hr Total	**251**	**237**	**233**	**221**	**236**	**236**	**167**	**166**	**133**	**90**	**72**	**35**
24 Hour Total :			**3674**									
AM Peak Hour Begins :			8:00	**AM Peak Volume :**			234	**AM Peak Hour Factor :**				0.91
PM Peak Hour Begins :			15:45	**PM Peak Volume :**			262	**PM Peak Hour Factor :**				0.83

Station Name: NB US 27 -OFF- Ramp to WB US 17
Description: NB US 27 -OFF-Ramp to WB US 17 #8 - ADR # 19
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: US 27 NB -OFF- Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	3	1	6	5	4	15	38	72	79	29	30	33
30	5	4	3	1	1	29	29	75	55	47	40	31
45	4	3	4	8	6	31	29	77	77	28	42	38
00	2	8	6	15	4	25	40	69	39	45	40	39
Hr Total	**14**	**16**	**19**	**29**	**15**	**100**	**136**	**293**	**250**	**149**	**152**	**141**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	38	46	47	65	72	68	34	42	19	24	7	7
30	39	55	56	53	58	76	40	29	14	6	13	0
45	39	41	57	71	60	63	41	31	10	21	24	9
00	31	43	43	46	63	42	24	21	19	16	11	6
Hr Total	**147**	**185**	**203**	**235**	**253**	**249**	**139**	**123**	**62**	**67**	**55**	**22**
24 Hour Total :			**3054**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			300	**AM Peak Hour Factor :**				0.95
PM Peak Hour Begins :			16:45	**PM Peak Volume :**			270	**PM Peak Hour Factor :**				0.89

Station Name: NB US 27 -OFF- Ramp to WB US 17
Description: NB US 27 -OFF-Ramp to WB US 17 #8 - ADR # 19
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: US 27 NB -OFF- Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	5	2	2	10	1	14	15	55	60	48	20	37
30	1	2	3	6	5	26	25	67	62	46	41	32
45	13	1	3	15	6	24	35	84	37	46	39	32
00	6	4	1	4	8	18	45	72	42	28	42	30
Hr Total	**25**	**9**	**9**	**35**	**20**	**82**	**120**	**278**	**201**	**168**	**142**	**131**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	56	47	41	58	71	80	56	29	22	26	15	7
30	45	56	77	59	55	60	44	23	10	12	5	10
45	33	58	56	60	58	71	29	29	22	9	14	9
00	50	41	58	63	53	54	27	25	18	21	5	6
Hr Total	**184**	**202**	**232**	**240**	**237**	**265**	**156**	**106**	**72**	**68**	**39**	**32**
24 Hour Total :			**3053**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			283	**AM Peak Hour Factor :**				0.84
PM Peak Hour Begins :			17:00	**PM Peak Volume :**			265	**PM Peak Hour Factor :**				0.83

Station Name: NB US 27 -OFF- Ramp to WB US 17
Description: NB US 27 -OFF-Ramp to WB US 17 #8 - ADR # 19
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: US 27 NB -OFF- Ramp to WB US 17											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	2	11	7	4	8	12	17	59	66	35	23	46
30	7	2	0	0	7	18	20	84	60	36	37	42
45	2	2	1	1	6	24	29	92	45	37	29	40
00	3	2	4	11	9	21	50	90	40	46	58	33
Hr Total	**14**	**17**	**12**	**16**	**30**	**75**	**116**	**325**	**211**	**154**	**147**	**161**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	54	58	48	55	64	62	32	21	10	20	7	3
30	37	48	55	73	58	64	35	33	9	26	19	3
45	23	48	76	66	55	70	32	18	12	12	8	9
00	36	52	76	56	58	36	32	23	17	11	7	5
Hr Total	**150**	**206**	**255**	**250**	**235**	**232**	**131**	**95**	**48**	**69**	**41**	**20**
24 Hour Total :			**3010**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			332	**AM Peak Hour Factor :**				0.9
PM Peak Hour Begins :			14:30	**PM Peak Volume :**			280	**PM Peak Hour Factor :**				0.92

Station Name: US 17 EB Underpass of US 27
Description: US 17 EB Underpass of US 27 # 10
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: US 17 EB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	38	24	15	18	26	56	127	207	240	215	224	228
30	30	27	16	18	27	73	174	201	250	190	228	178
45	27	12	16	30	37	100	273	249	251	217	195	267
00	31	12	16	26	35	105	233	266	228	194	190	216
Hr Total	**126**	**75**	**63**	**92**	**125**	**334**	**807**	**923**	**969**	**816**	**837**	**889**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	207	234	269	260	254	300	221	209	162	114	63	49
30	229	223	257	283	270	300	229	218	144	126	81	61
45	225	226	221	233	254	303	214	166	140	91	71	39
00	239	240	256	275	263	284	192	140	131	89	58	48
Hr Total	**900**	**923**	**1003**	**1051**	**1041**	**1187**	**856**	**733**	**577**	**420**	**273**	**197**
24 Hour Total :			**15217**									
AM Peak Hour Begins :			7:45	**AM Peak Volume :**			1007	**AM Peak Hour Factor :**				0.92
PM Peak Hour Begins :			17:00	**PM Peak Volume :**			1187	**PM Peak Hour Factor :**				0.98

Station Name: US 17 EB Underpass of US 27
Description: US 17 EB Underpass of US 27 # 10
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: US 17 EB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	36	30	18	19	30	57	138	208	292	238	214	241
30	23	17	28	19	29	62	194	189	222	197	218	208
45	18	22	21	22	33	86	239	216	256	186	211	250
00	24	14	15	34	29	120	233	250	255	225	194	221
Hr Total	**101**	**83**	**82**	**94**	**121**	**325**	**804**	**863**	**1025**	**846**	**837**	**920**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	247	239	229	236	272	274	235	177	167	110	93	41
30	235	255	222	237	258	308	235	201	152	99	75	55
45	226	243	284	280	315	269	229	193	136	91	81	39
00	220	229	271	250	297	296	184	181	138	98	69	35
Hr Total	**928**	**966**	**1006**	**1003**	**1142**	**1147**	**883**	**752**	**593**	**398**	**318**	**170**
24 Hour Total :			**15407**									
AM Peak Hour Begins :			8:00	**AM Peak Volume :**			1025	**AM Peak Hour Factor :**				0.88
PM Peak Hour Begins :			16:30	**PM Peak Volume :**			1194	**PM Peak Hour Factor :**				0.95

Station Name: US 17 EB Underpass of US 27
Description: US 17 EB Underpass of US 27 # 10
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: US 17 EB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	39	19	18	21	23	73	142	207	289	200	209	219
30	29	27	17	27	31	66	182	203	238	201	224	195
45	41	23	16	25	29	99	225	218	266	215	238	201
00	27	17	20	24	44	97	241	233	226	234	245	226
Hr Total	**136**	**86**	**71**	**97**	**127**	**335**	**790**	**861**	**1019**	**850**	**916**	**841**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	275	233	227	252	228	324	213	183	142	121	69	62
30	284	232	229	263	267	281	218	202	154	125	70	53
45	228	257	283	272	267	274	221	164	164	101	60	53
00	214	239	255	255	284	254	184	166	155	86	67	28
Hr Total	**1001**	**961**	**994**	**1042**	**1046**	**1133**	**836**	**715**	**615**	**433**	**266**	**196**
24 Hour Total :			**15367**									
AM Peak Hour Begins :			7:45	**AM Peak Volume :**			1026	**AM Peak Hour Factor :**				0.89
PM Peak Hour Begins :			16:45	**PM Peak Volume :**			1163	**PM Peak Hour Factor :**				0.9

Station Name: US 17 WB Underpass of US 27
Description: US 17 WB Underpass of US 27 #10
City: Haines City
County: Polk County
Start Date/Time: 05/07/2019 00:00
End Date/Time: 05/08/2019 00:00

Date: 05/07/2019	Station Name: US 17 WB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	15	10	5	14	17	50	107	232	264	154	169	149
30	24	18	20	17	18	70	146	236	219	174	174	157
45	31	21	9	20	41	114	136	253	204	180	154	201
00	18	10	11	39	34	94	169	264	219	156	162	186
Hr Total	**88**	**59**	**45**	**90**	**110**	**328**	**558**	**985**	**906**	**664**	**659**	**693**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	167	191	191	193	230	309	189	132	113	95	69	33
30	184	210	213	250	274	291	200	164	116	102	64	42
45	177	191	217	245	238	254	172	151	86	89	60	33
00	163	182	214	229	241	215	138	135	103	80	47	29
Hr Total	**691**	**774**	**835**	**917**	**983**	**1069**	**699**	**582**	**418**	**366**	**240**	**137**
24 Hour Total :			**12896**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			1017	**AM Peak Hour Factor :**				0.96
PM Peak Hour Begins :			16:45	**PM Peak Volume :**			1095	**PM Peak Hour Factor :**				0.89

Station Name: US 17 WB Underpass of US 27
Description: US 17 WB Underpass of US 27 #10
City: Haines City
County: Polk County
Start Date/Time: 05/08/2019 00:00
End Date/Time: 05/09/2019 00:00

Date: 05/08/2019	Station Name: US 17 WB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	22	18	11	12	19	50	73	226	249	177	164	189
30	16	13	12	14	27	75	125	224	253	186	138	151
45	19	10	13	17	31	98	147	263	193	179	175	183
00	16	10	10	26	47	92	147	268	170	157	194	178
Hr Total	**73**	**51**	**46**	**69**	**124**	**315**	**492**	**981**	**865**	**699**	**671**	**701**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	210	196	207	207	222	283	183	171	112	110	82	42
30	162	175	214	268	278	285	192	150	131	105	53	37
45	189	188	227	228	264	255	177	144	118	70	52	45
00	212	175	240	233	215	233	159	139	116	78	49	31
Hr Total	**773**	**734**	**888**	**936**	**979**	**1056**	**711**	**604**	**477**	**363**	**236**	**155**
24 Hour Total :			**12999**									
AM Peak Hour Begins :			7:30	**AM Peak Volume :**			1033	**AM Peak Hour Factor :**				0.96
PM Peak Hour Begins :			17:00	**PM Peak Volume :**			1056	**PM Peak Hour Factor :**				0.93

Station Name: US 17 WB Underpass of US 27
Description: US 17 WB Underpass of US 27 #10
City: Haines City
County: Polk County
Start Date/Time: 05/09/2019 00:00
End Date/Time: 05/10/2019 00:00

Date: 05/09/2019	Station Name: US 17 WB Underpass of US 27											
End Time	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**
15	19	16	19	15	29	43	87	232	285	172	166	190
30	20	18	8	10	24	78	122	238	230	162	151	192
45	16	7	12	10	31	90	160	272	212	167	178	170
00	17	14	15	15	42	96	159	305	181	183	171	166
Hr Total	**72**	**55**	**54**	**50**	**126**	**307**	**528**	**1047**	**908**	**684**	**666**	**718**
End Time	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**
15	179	204	218	252	228	245	225	143	137	90	54	34
30	204	171	219	232	284	290	172	172	124	91	55	36
45	184	190	222	231	248	252	174	164	100	97	58	40
00	186	180	239	231	247	239	167	125	95	73	55	28
Hr Total	**753**	**745**	**898**	**946**	**1007**	**1026**	**738**	**604**	**456**	**351**	**222**	**138**
24 Hour Total :			**13099**									
AM Peak Hour Begins :			7:15	**AM Peak Volume :**			1100	**AM Peak Hour Factor :**				0.9
PM Peak Hour Begins :			16:45	**PM Peak Volume :**			1034	**PM Peak Hour Factor :**				0.89

APPENDIX B

Seasonal Factors (FTO)

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1600 POLK COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	0.98	1.03
2	01/07/2018 - 01/13/2018	1.01	1.06
3	01/14/2018 - 01/20/2018	1.03	1.08
4	01/21/2018 - 01/27/2018	1.01	1.06
* 5	01/28/2018 - 02/03/2018	0.99	1.04
* 6	02/04/2018 - 02/10/2018	0.97	1.02
* 7	02/11/2018 - 02/17/2018	0.95	1.00
* 8	02/18/2018 - 02/24/2018	0.94	0.99
* 9	02/25/2018 - 03/03/2018	0.94	0.99
*10	03/04/2018 - 03/10/2018	0.93	0.98
*11	03/11/2018 - 03/17/2018	0.92	0.97
*12	03/18/2018 - 03/24/2018	0.93	0.98
*13	03/25/2018 - 03/31/2018	0.94	0.99
*14	04/01/2018 - 04/07/2018	0.95	1.00
*15	04/08/2018 - 04/14/2018	0.96	1.01
*16	04/15/2018 - 04/21/2018	0.96	1.01
*17	04/22/2018 - 04/28/2018	0.98	1.03
18	04/29/2018 - 05/05/2018	1.00	1.05
19	05/06/2018 - 05/12/2018	1.01	1.06
20	05/13/2018 - 05/19/2018	1.03	1.08
21	05/20/2018 - 05/26/2018	1.03	1.08
22	05/27/2018 - 06/02/2018	1.03	1.08
23	06/03/2018 - 06/09/2018	1.04	1.09
24	06/10/2018 - 06/16/2018	1.04	1.09
25	06/17/2018 - 06/23/2018	1.05	1.11
26	06/24/2018 - 06/30/2018	1.05	1.11
27	07/01/2018 - 07/07/2018	1.06	1.12
28	07/08/2018 - 07/14/2018	1.07	1.13
29	07/15/2018 - 07/21/2018	1.08	1.14
30	07/22/2018 - 07/28/2018	1.07	1.13
31	07/29/2018 - 08/04/2018	1.06	1.12
32	08/05/2018 - 08/11/2018	1.05	1.11
33	08/12/2018 - 08/18/2018	1.04	1.09
34	08/19/2018 - 08/25/2018	1.04	1.09
35	08/26/2018 - 09/01/2018	1.04	1.09
36	09/02/2018 - 09/08/2018	1.04	1.09
37	09/09/2018 - 09/15/2018	1.05	1.11
38	09/16/2018 - 09/22/2018	1.04	1.09
39	09/23/2018 - 09/29/2018	1.03	1.08
40	09/30/2018 - 10/06/2018	1.02	1.07
41	10/07/2018 - 10/13/2018	1.01	1.06
42	10/14/2018 - 10/20/2018	1.00	1.05
43	10/21/2018 - 10/27/2018	1.00	1.05
44	10/28/2018 - 11/03/2018	0.99	1.04
45	11/04/2018 - 11/10/2018	0.99	1.04
46	11/11/2018 - 11/17/2018	0.98	1.03
47	11/18/2018 - 11/24/2018	0.98	1.03
48	11/25/2018 - 12/01/2018	0.98	1.03
49	12/02/2018 - 12/08/2018	0.98	1.03
50	12/09/2018 - 12/15/2018	0.98	1.03
51	12/16/2018 - 12/22/2018	1.00	1.05
52	12/23/2018 - 12/29/2018	1.01	1.06
53	12/30/2018 - 12/31/2018	1.03	1.08

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1601 SR37, S OF POLK PKWY

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	0.99	1.02
2	01/07/2018 - 01/13/2018	1.02	1.05
3	01/14/2018 - 01/20/2018	1.05	1.08
4	01/21/2018 - 01/27/2018	1.03	1.06
5	01/28/2018 - 02/03/2018	1.02	1.05
6	02/04/2018 - 02/10/2018	1.00	1.03
* 7	02/11/2018 - 02/17/2018	0.98	1.01
* 8	02/18/2018 - 02/24/2018	0.98	1.01
* 9	02/25/2018 - 03/03/2018	0.98	1.01
*10	03/04/2018 - 03/10/2018	0.97	1.00
*11	03/11/2018 - 03/17/2018	0.97	1.00
*12	03/18/2018 - 03/24/2018	0.97	1.00
*13	03/25/2018 - 03/31/2018	0.97	1.00
*14	04/01/2018 - 04/07/2018	0.96	0.99
*15	04/08/2018 - 04/14/2018	0.96	0.99
*16	04/15/2018 - 04/21/2018	0.96	0.99
*17	04/22/2018 - 04/28/2018	0.97	1.00
*18	04/29/2018 - 05/05/2018	0.99	1.02
*19	05/06/2018 - 05/12/2018	1.00	1.03
20	05/13/2018 - 05/19/2018	1.01	1.04
21	05/20/2018 - 05/26/2018	1.02	1.05
22	05/27/2018 - 06/02/2018	1.02	1.05
23	06/03/2018 - 06/09/2018	1.03	1.06
24	06/10/2018 - 06/16/2018	1.03	1.06
25	06/17/2018 - 06/23/2018	1.04	1.07
26	06/24/2018 - 06/30/2018	1.05	1.08
27	07/01/2018 - 07/07/2018	1.05	1.08
28	07/08/2018 - 07/14/2018	1.06	1.09
29	07/15/2018 - 07/21/2018	1.07	1.10
30	07/22/2018 - 07/28/2018	1.05	1.08
31	07/29/2018 - 08/04/2018	1.03	1.06
32	08/05/2018 - 08/11/2018	1.01	1.04
33	08/12/2018 - 08/18/2018	0.99	1.02
34	08/19/2018 - 08/25/2018	1.00	1.03
35	08/26/2018 - 09/01/2018	1.00	1.03
36	09/02/2018 - 09/08/2018	1.01	1.04
37	09/09/2018 - 09/15/2018	1.01	1.04
38	09/16/2018 - 09/22/2018	1.00	1.03
39	09/23/2018 - 09/29/2018	0.99	1.02
40	09/30/2018 - 10/06/2018	0.99	1.02
41	10/07/2018 - 10/13/2018	0.98	1.01
42	10/14/2018 - 10/20/2018	0.97	1.00
43	10/21/2018 - 10/27/2018	0.98	1.01
44	10/28/2018 - 11/03/2018	0.98	1.01
45	11/04/2018 - 11/10/2018	0.99	1.02
46	11/11/2018 - 11/17/2018	0.99	1.02
47	11/18/2018 - 11/24/2018	0.99	1.02
48	11/25/2018 - 12/01/2018	0.99	1.02
49	12/02/2018 - 12/08/2018	0.99	1.02
50	12/09/2018 - 12/15/2018	0.99	1.02
51	12/16/2018 - 12/22/2018	1.01	1.04
52	12/23/2018 - 12/29/2018	1.03	1.06
53	12/30/2018 - 12/31/2018	1.05	1.08

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1602 US 17, S OF BARTOW

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	0.98	1.03
2	01/07/2018 - 01/13/2018	1.01	1.06
3	01/14/2018 - 01/20/2018	1.04	1.09
4	01/21/2018 - 01/27/2018	1.02	1.07
5	01/28/2018 - 02/03/2018	1.00	1.05
* 6	02/04/2018 - 02/10/2018	0.99	1.04
* 7	02/11/2018 - 02/17/2018	0.97	1.02
* 8	02/18/2018 - 02/24/2018	0.96	1.01
* 9	02/25/2018 - 03/03/2018	0.95	1.00
*10	03/04/2018 - 03/10/2018	0.94	0.99
*11	03/11/2018 - 03/17/2018	0.93	0.98
*12	03/18/2018 - 03/24/2018	0.93	0.98
*13	03/25/2018 - 03/31/2018	0.94	0.99
*14	04/01/2018 - 04/07/2018	0.94	0.99
*15	04/08/2018 - 04/14/2018	0.95	1.00
*16	04/15/2018 - 04/21/2018	0.96	1.01
*17	04/22/2018 - 04/28/2018	0.97	1.02
*18	04/29/2018 - 05/05/2018	0.98	1.03
19	05/06/2018 - 05/12/2018	1.00	1.05
20	05/13/2018 - 05/19/2018	1.01	1.06
21	05/20/2018 - 05/26/2018	1.02	1.07
22	05/27/2018 - 06/02/2018	1.02	1.07
23	06/03/2018 - 06/09/2018	1.03	1.08
24	06/10/2018 - 06/16/2018	1.04	1.09
25	06/17/2018 - 06/23/2018	1.05	1.11
26	06/24/2018 - 06/30/2018	1.06	1.12
27	07/01/2018 - 07/07/2018	1.07	1.13
28	07/08/2018 - 07/14/2018	1.08	1.14
29	07/15/2018 - 07/21/2018	1.09	1.15
30	07/22/2018 - 07/28/2018	1.07	1.13
31	07/29/2018 - 08/04/2018	1.06	1.12
32	08/05/2018 - 08/11/2018	1.05	1.11
33	08/12/2018 - 08/18/2018	1.04	1.09
34	08/19/2018 - 08/25/2018	1.04	1.09
35	08/26/2018 - 09/01/2018	1.05	1.11
36	09/02/2018 - 09/08/2018	1.05	1.11
37	09/09/2018 - 09/15/2018	1.05	1.11
38	09/16/2018 - 09/22/2018	1.04	1.09
39	09/23/2018 - 09/29/2018	1.03	1.08
40	09/30/2018 - 10/06/2018	1.01	1.06
41	10/07/2018 - 10/13/2018	1.00	1.05
42	10/14/2018 - 10/20/2018	0.99	1.04
43	10/21/2018 - 10/27/2018	0.99	1.04
44	10/28/2018 - 11/03/2018	0.99	1.04
45	11/04/2018 - 11/10/2018	0.98	1.03
46	11/11/2018 - 11/17/2018	0.98	1.03
47	11/18/2018 - 11/24/2018	0.98	1.03
48	11/25/2018 - 12/01/2018	0.98	1.03
49	12/02/2018 - 12/08/2018	0.98	1.03
50	12/09/2018 - 12/15/2018	0.98	1.03
51	12/16/2018 - 12/22/2018	1.00	1.05
52	12/23/2018 - 12/29/2018	1.02	1.07
53	12/30/2018 - 12/31/2018	1.04	1.09

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1603 US 27

MOCF: 0.94

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	0.98	1.04
2	01/07/2018 - 01/13/2018	0.99	1.05
3	01/14/2018 - 01/20/2018	1.01	1.07
4	01/21/2018 - 01/27/2018	0.99	1.05
* 5	01/28/2018 - 02/03/2018	0.97	1.03
* 6	02/04/2018 - 02/10/2018	0.95	1.01
* 7	02/11/2018 - 02/17/2018	0.93	0.99
* 8	02/18/2018 - 02/24/2018	0.93	0.99
* 9	02/25/2018 - 03/03/2018	0.92	0.98
*10	03/04/2018 - 03/10/2018	0.92	0.98
*11	03/11/2018 - 03/17/2018	0.92	0.98
*12	03/18/2018 - 03/24/2018	0.93	0.99
*13	03/25/2018 - 03/31/2018	0.94	1.00
*14	04/01/2018 - 04/07/2018	0.95	1.01
*15	04/08/2018 - 04/14/2018	0.96	1.02
*16	04/15/2018 - 04/21/2018	0.97	1.03
*17	04/22/2018 - 04/28/2018	0.99	1.05
18	04/29/2018 - 05/05/2018	1.01	1.07
19	05/06/2018 - 05/12/2018	1.03	1.10
20	05/13/2018 - 05/19/2018	1.05	1.12
21	05/20/2018 - 05/26/2018	1.05	1.12
22	05/27/2018 - 06/02/2018	1.05	1.12
23	06/03/2018 - 06/09/2018	1.05	1.12
24	06/10/2018 - 06/16/2018	1.06	1.13
25	06/17/2018 - 06/23/2018	1.06	1.13
26	06/24/2018 - 06/30/2018	1.06	1.13
27	07/01/2018 - 07/07/2018	1.07	1.14
28	07/08/2018 - 07/14/2018	1.07	1.14
29	07/15/2018 - 07/21/2018	1.08	1.15
30	07/22/2018 - 07/28/2018	1.07	1.14
31	07/29/2018 - 08/04/2018	1.06	1.13
32	08/05/2018 - 08/11/2018	1.05	1.12
33	08/12/2018 - 08/18/2018	1.05	1.12
34	08/19/2018 - 08/25/2018	1.05	1.12
35	08/26/2018 - 09/01/2018	1.05	1.12
36	09/02/2018 - 09/08/2018	1.05	1.12
37	09/09/2018 - 09/15/2018	1.06	1.13
38	09/16/2018 - 09/22/2018	1.05	1.12
39	09/23/2018 - 09/29/2018	1.04	1.11
40	09/30/2018 - 10/06/2018	1.03	1.10
41	10/07/2018 - 10/13/2018	1.02	1.09
42	10/14/2018 - 10/20/2018	1.01	1.07
43	10/21/2018 - 10/27/2018	1.00	1.06
44	10/28/2018 - 11/03/2018	1.00	1.06
45	11/04/2018 - 11/10/2018	0.99	1.05
46	11/11/2018 - 11/17/2018	0.98	1.04
47	11/18/2018 - 11/24/2018	0.98	1.04
48	11/25/2018 - 12/01/2018	0.98	1.04
49	12/02/2018 - 12/08/2018	0.98	1.04
50	12/09/2018 - 12/15/2018	0.98	1.04
51	12/16/2018 - 12/22/2018	0.99	1.05
52	12/23/2018 - 12/29/2018	1.00	1.06
53	12/30/2018 - 12/31/2018	1.01	1.07

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1604 POLK I4

MOCF: 0.96

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	1.03	1.07
2	01/07/2018 - 01/13/2018	1.03	1.07
3	01/14/2018 - 01/20/2018	1.04	1.08
4	01/21/2018 - 01/27/2018	1.02	1.06
5	01/28/2018 - 02/03/2018	1.00	1.04
* 6	02/04/2018 - 02/10/2018	0.98	1.02
* 7	02/11/2018 - 02/17/2018	0.97	1.01
* 8	02/18/2018 - 02/24/2018	0.96	1.00
* 9	02/25/2018 - 03/03/2018	0.95	0.99
*10	03/04/2018 - 03/10/2018	0.94	0.98
*11	03/11/2018 - 03/17/2018	0.93	0.97
*12	03/18/2018 - 03/24/2018	0.94	0.98
*13	03/25/2018 - 03/31/2018	0.95	0.99
*14	04/01/2018 - 04/07/2018	0.96	1.00
*15	04/08/2018 - 04/14/2018	0.97	1.01
*16	04/15/2018 - 04/21/2018	0.98	1.02
*17	04/22/2018 - 04/28/2018	0.99	1.03
*18	04/29/2018 - 05/05/2018	1.00	1.04
19	05/06/2018 - 05/12/2018	1.01	1.05
20	05/13/2018 - 05/19/2018	1.03	1.07
21	05/20/2018 - 05/26/2018	1.02	1.06
22	05/27/2018 - 06/02/2018	1.01	1.05
23	06/03/2018 - 06/09/2018	1.00	1.04
24	06/10/2018 - 06/16/2018	0.99	1.03
25	06/17/2018 - 06/23/2018	0.99	1.03
26	06/24/2018 - 06/30/2018	0.99	1.03
27	07/01/2018 - 07/07/2018	0.99	1.03
28	07/08/2018 - 07/14/2018	0.99	1.03
29	07/15/2018 - 07/21/2018	0.99	1.03
30	07/22/2018 - 07/28/2018	0.99	1.03
31	07/29/2018 - 08/04/2018	1.00	1.04
32	08/05/2018 - 08/11/2018	1.00	1.04
33	08/12/2018 - 08/18/2018	1.00	1.04
34	08/19/2018 - 08/25/2018	1.01	1.05
35	08/26/2018 - 09/01/2018	1.03	1.07
36	09/02/2018 - 09/08/2018	1.04	1.08
37	09/09/2018 - 09/15/2018	1.06	1.10
38	09/16/2018 - 09/22/2018	1.05	1.09
39	09/23/2018 - 09/29/2018	1.05	1.09
40	09/30/2018 - 10/06/2018	1.05	1.09
41	10/07/2018 - 10/13/2018	1.04	1.08
42	10/14/2018 - 10/20/2018	1.04	1.08
43	10/21/2018 - 10/27/2018	1.04	1.08
44	10/28/2018 - 11/03/2018	1.04	1.08
45	11/04/2018 - 11/10/2018	1.03	1.07
46	11/11/2018 - 11/17/2018	1.03	1.07
47	11/18/2018 - 11/24/2018	1.03	1.07
48	11/25/2018 - 12/01/2018	1.03	1.07
49	12/02/2018 - 12/08/2018	1.03	1.07
50	12/09/2018 - 12/15/2018	1.03	1.07
51	12/16/2018 - 12/22/2018	1.03	1.07
52	12/23/2018 - 12/29/2018	1.03	1.07
53	12/30/2018 - 12/31/2018	1.04	1.08

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT
CATEGORY: 1622 NEW CATEGORY

MOCF: 0.91

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	0.99	1.09
2	01/07/2018 - 01/13/2018	0.99	1.09
3	01/14/2018 - 01/20/2018	0.98	1.08
* 4	01/21/2018 - 01/27/2018	0.96	1.05
* 5	01/28/2018 - 02/03/2018	0.94	1.03
* 6	02/04/2018 - 02/10/2018	0.92	1.01
* 7	02/11/2018 - 02/17/2018	0.90	0.99
* 8	02/18/2018 - 02/24/2018	0.90	0.99
* 9	02/25/2018 - 03/03/2018	0.89	0.98
*10	03/04/2018 - 03/10/2018	0.89	0.98
*11	03/11/2018 - 03/17/2018	0.88	0.97
*12	03/18/2018 - 03/24/2018	0.89	0.98
*13	03/25/2018 - 03/31/2018	0.91	1.00
*14	04/01/2018 - 04/07/2018	0.92	1.01
*15	04/08/2018 - 04/14/2018	0.94	1.03
*16	04/15/2018 - 04/21/2018	0.95	1.04
17	04/22/2018 - 04/28/2018	0.97	1.07
18	04/29/2018 - 05/05/2018	1.00	1.10
19	05/06/2018 - 05/12/2018	1.02	1.12
20	05/13/2018 - 05/19/2018	1.04	1.14
21	05/20/2018 - 05/26/2018	1.05	1.15
22	05/27/2018 - 06/02/2018	1.06	1.16
23	06/03/2018 - 06/09/2018	1.06	1.16
24	06/10/2018 - 06/16/2018	1.07	1.18
25	06/17/2018 - 06/23/2018	1.08	1.19
26	06/24/2018 - 06/30/2018	1.09	1.20
27	07/01/2018 - 07/07/2018	1.09	1.20
28	07/08/2018 - 07/14/2018	1.10	1.21
29	07/15/2018 - 07/21/2018	1.11	1.22
30	07/22/2018 - 07/28/2018	1.10	1.21
31	07/29/2018 - 08/04/2018	1.09	1.20
32	08/05/2018 - 08/11/2018	1.08	1.19
33	08/12/2018 - 08/18/2018	1.07	1.18
34	08/19/2018 - 08/25/2018	1.07	1.18
35	08/26/2018 - 09/01/2018	1.07	1.18
36	09/02/2018 - 09/08/2018	1.07	1.18
37	09/09/2018 - 09/15/2018	1.07	1.18
38	09/16/2018 - 09/22/2018	1.06	1.16
39	09/23/2018 - 09/29/2018	1.05	1.15
40	09/30/2018 - 10/06/2018	1.04	1.14
41	10/07/2018 - 10/13/2018	1.03	1.13
42	10/14/2018 - 10/20/2018	1.02	1.12
43	10/21/2018 - 10/27/2018	1.01	1.11
44	10/28/2018 - 11/03/2018	1.01	1.11
45	11/04/2018 - 11/10/2018	1.00	1.10
46	11/11/2018 - 11/17/2018	0.99	1.09
47	11/18/2018 - 11/24/2018	0.99	1.09
48	11/25/2018 - 12/01/2018	0.99	1.09
49	12/02/2018 - 12/08/2018	0.99	1.09
50	12/09/2018 - 12/15/2018	0.99	1.09
51	12/16/2018 - 12/22/2018	0.99	1.09
52	12/23/2018 - 12/29/2018	0.98	1.08
53	12/30/2018 - 12/31/2018	0.98	1.08

* PEAK SEASON

APPENDIX C

Existing Signal Timings

TRAFFIC SIGNAL TIMING CARD

INT. #: 1212 Location: Berkley @ Old Dixie Hwy Date: 12-12-14

Ø	Street Name	Dir	Delay	RCL	INT	EXT	MAXI	MAX2	YEL	RED	WK	DW	CNA1	CNA2	TIME BEF. PRE.	TRK CL GRN	TRK CL YEL	PRE DWELL	YEL AFT PRE	DCS
1	Berkley LT	NB			7	3	40		4.5	2										
2	Berkley	SB		Min	15	3	60		4.8	2	7	40								
4	Old Dixie	WB			10	3	60		4.5	2.5	7	40								
5	Berkley LT	SB			7	3	40		4.5											
6	Berkley	NB		Min	15	3	60		4.8	2	7	40								
8	Old Dixie	EB			10	3	60		4.8	2	7	40								

Coordination

TBC:

DIAL	CYC Length	01	02	03	EP1	SP2	EP2	SP3	EP3	F01/Ø	F02/Ø	F03/Ø	F04/Ø	HOLD Ø	TOD

FLASH:

FREE: 24 hr

Comments:

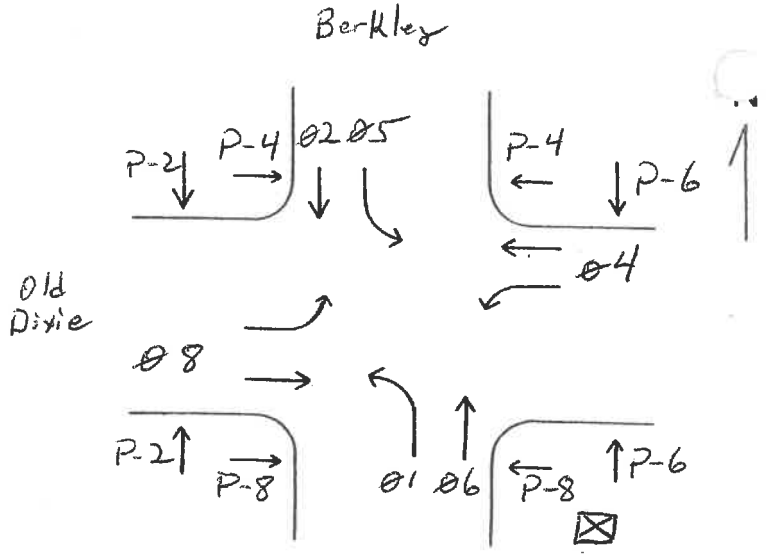
4-5 section heads

SOP-9

Phase Mode User

Ring 1 2 4 3
5 6 7 8

Det on Back



1210

Designed By:	
Date:	
Checked By:	
Date:	

Location Details			
Section:	16020-000	Mile Post:	10.762
Major Street:	SR 600/Magnolia Ave	Orientation:	E-W
Minor Street:	SR 559/Main St	Orientation:	N-S
Signal ID:	598	System ID:	16020F

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBLT	WB	SB	NB	WBLT	EB			
Turn Type	Prot/Perm		Split/Lead	Split/Lag	Prot/Perm				4-section FYA for Ø1 and Ø5
Min Green	5	12	7	7	5	12			
Ext	3.0	5.0	5.0	5.0	3.0	5.0			
Yellow	4.9	4.9	3.7	3.7	4.9	4.9			
All Red	2.7	2.7	2.6	2.9	2.7	2.7			
Max I	10	35	15	15	10	35			
Max II	20	55	25	40	15	60			
Walk		10	10	10		10			
Flashing Don't Walk		23	37	35		24			
Detector Memory									
Det. Cross Switch.	Ø6				Ø2				
Dual Entry		ON				ON			
Vehicle Recall		MIN				MIN			
CNA									
Rest In Walk		ON				ON			

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence	Coord Ø
1		120	20	52	23	25	15	57			88	1	2
2		100	18	45	18	19	15	48			64	1	2
3		90	17	33	23	17	13	37			88	1	2
4		90	15	45	15	15	15	45			32	1	2
5		110	18	48	24	20	15	51			105	1	2
6		130	20	48	22	40	15	53			104	1	2

Offset Reference Point
End of Green

Notes:
1) Use 'Max I' during FREE Operation and 'Max II' during coordination.
2) Use Fixed Force Offs.
3) Sequence 1 used during FREE operation.
4) Coordination phases in Max recall during coordination.
5) Program 8 seconds detection delay for minor street right turn movements.
6) Program 3 second delay for minor street left turn movements.
7) Max+Ped recall during coordination.
8) Program phase restiriction to omit movement 1 and redirect calls from movement 1 to movement 6, when movement 2 is green, and to omit movement 5 and redirect calls from movement 5 to movement 2, when movement 6 is green.
9) Controller Brand: Naztec
9.a) Program 'Return Hold' during coordination
9.b) Short/Long percentage is 5/17 for all patterns
9.c) MinPerm for pedestrian phases is programmed during coordination
9.d) Stop in Walk: ON
9.e) Walk Recycle: P3478_INH
9.f) 'No Short' on Ø5 for Pattern 3.

SOP 9 (Sequence 1)

Ring - 1	1	2	3	4
Ring - 2	5	6		

Time of Day Plan

Designed By:	
Date:	1/11/2010
Checked By:	
Date:	1/11/2010

Section:	16020-000; 16140-000
Corridor:	US 92 and Havendale Blvd
From:	Main St
To:	34th St

ALL SEASON PLAN

Day	Plan	Time		Pattern (C-O-S)*	Cycle Length
Monday Thru Friday	FREE	0:00	6:15	-	FREE
	AM	6:15	9:00	1	120
	~~OFF PK~~	~~9:00~~	~~11:00~~	~~2~~	~~100~~
	MIDDAY	~~11:00~~ 9:00	15:00	5	110
	PM	15:00	18:15	6	130
	OFF PK	18:15	20:00	2	100
	NIGHT	20:00	22:00	4	90
	FREE	22:00	0:00	-	FREE
Saturday	FREE	0:00	8:00	-	FREE
	MIDDAY	8:00	18:00	5	100
	NIGHT	18:00	22:15	4	100
	FREE	22:15	0:00	-	FREE
Sunday	FREE	0:00	9:00	-	FREE
	MDDAY	9:00	16:00	5	100
	NIGHT	16:00	22:15	4	110
	FREE	22:15	0:00	-	FREE

* SR 600/US 92 @ Bennett St and SR 600/US 92 @ SR 544/Havendale Blvd operate "Cycle" "Offset" and "Split" plans. See timing sheets for specific COS combinations

1259

Designed By:	KEB
Date:	12/2016
Checked By:	RJ
Date:	12/2017

Location Details			
Section:	16020-102	Mile Post:	0.100
Major Street:	US 17/92 SB	Orientation:	S
Minor Street:	Pomelo St.	Orientation:	E-W
Sig ID:	1045	System ID:	16020F1

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction		SB		WB				EB	
Turn Type		Prtot		Perm				Perm	
Min Green		10		10				10	
Ext		3.5		3.0				3.0	
Yellow		3.5		3.0				3.0	
All Red		3.5		4.5				4.5	
Max I		30		15				15	
Max II		36		36				36	
Walk		7		7				7	
Flashing Don't Walk		19		15				16	
Detector Memory		ON							
Det. Cross Switch.									
Dual Entry				ON				ON	
Vehicle Recall		MIN							
CNA									
Rest in Walk									
Coord Phase				YES					

Coordination Timings (seconds)

Pattern	C-O-S	Cycle Length	Splits								Offset	Sequence
1		70		34		36				36	69	1
2		65		32		33				33	12	1
3		70		36		34				34	2	1
4		60		28		32				32	6	1
5		75		36		39				39	4	1

Offset Reference Point
End of Main Street Green

Modified SOP 1 (Sequence 1)

Ring - 1	2	4
Ring - 2		8

Notes:

1) Use 'Max 1' during FREE operation and 'Max II' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall phases 4 & 8 during coordination
5) Controller Brand: Naztec Controller Model: 980
5.a) Program 'MinPerm' for pedestrian phases during coordination
5.b) Enable 'Stop In Walk' during coordination.
5.c) Program 'Return Hold' during coordination
5.d) Short/Long percentage is 10/22 for all patterns
5.e) Program Walk Recycle, "3478_INH" during coordination

Time of Day Plan

Designed By:	*KEB*
Date:	*12/2016*
Checked By:	*RJ*
Date:	*12/2017*

Arterial: ***US 17/92***
System ID: ***16020F1***
Section: ***16020-000***
From: ***Haines Blvd***
To: ***US 19/92 SB Pomelo***

ALL SEASON PLAN

Day	Time	Pattern	Cycle Length
Monday Thru Friday	0000		Free
	0600	5	75
	2000	4	60
	2215		Free
Saturday	0000		Free
	0730	2	65
	0945	3	70
	1630	2	65
	2100	4	60
	2330		Free
Sunday	0000		Free
	0900	2	65
	2000	4	60
	2200		Free

Designed By:	
Date:	
Checked By:	
Date:	

Location Details			
Section:	16020-000	Mile Post:	15.686
Major Street:	US 17/92 NB	Orientation:	N
Minor Street:	Pomelo St.	Orientation:	E-W
Sig ID:	1044	System ID:	16020F1

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	NBL	Ped		EB		NB		WB	
Turn Type	Prot			Perm				Perm	
Min Green	7	1		12		20		12	
Ext	4.0	1.0		4.0		4.0		4.0	
Yellow	3.5	3.5		3.0		3.5		3.0	
All Red	3.0	3.0		3.5		3.0		3.5	
Max I	30	1		20		30		20	
Max II	15	1		28		43		28	
Walk		7		7		7		7	
Flashing Don't Walk		16		13		12		9	
Detector Memory	ON	ON							
Det. Cross Switch.									
Dual Entry	ON	ON		ON		ON		ON	
Vehicle Recall	MIN					MIN			
CNA									
Rest In Walk									
Coord Phase						YES			

Coordination Timings (seconds)

Pattern	C-O-S	Cycle Length	Splits								Offset	Sequence
1		70	15	28		27		43		27	63	1
2		65	15	22		28		37		28	65	1
3		70	15	27		28		42		28	66	1
4		60	15	23		22		38		22	0	1
5		75	15	32		28		47		28	71	1

Offset Reference Point
End of Main Street Green

Modified SOP 1 (Sequence 1)

Ring - 1	1	2(P2)	4
Ring - 2		6	8

Notes:
1) Use 'Max 1' during FREE operation and 'Max II' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall phases 2 & 6 during coordination
5) Controller Brand: Naztec Controller Model: 980
5.a) Program 'MinPerm' for pedestrian phases during coordination
5.b) Enable 'Stop In Walk' during coordination.
5.c) Program 'Return Hold' during coordination
5.d) Short/Long percentage is 10/22 for all patterns
5.e) Program Walk Recycle, "3478_INH" during coordination
6) No Short Phase 1 during coord.

5/4/17

Time of Day Plan

Designed By:
Date:
Checked By:
Date:

Arterial: *US 17/92*
System ID: *16020F1*
Section: *16020-000*
From: *Haines Blvd*
To: *US 19/92 SB Pomelo*

ALL SEASON PLAN

Day	Time	Pattern	Cycle Length
Monday Thru Friday	0000		Free
	0600	5	75
	2000	4	60
	2215		Free
Saturday	0000		Free
	0730	2	65
	0945	3	70
	1630	2	65
	2100	4	60
	2330		Free
Sunday	0000		Free
	0900	2	65
	2000	4	60
	2200		Free

#1315

FDOT - DISTRICT 1

Signal Timing Report

(For isolated traffic signal)

Drawn By:	KED
Date:	12/2014
Checked By:	RS
Date:	12/2014

Approved By:

Renjan Joseph. P.E. # 68284

Date: 12/11/2014

Revisions	Location Details			
11/2014: Updated controller timing parameters to the June 2014 D1 Guidelines. Added detection delay for side street right turn movements.	Section:	16140000	Mile Post:	9.853
	Major Street:	US 27	Orientation:	N/S
	Minor Street:	SR 544	Orientation:	E/W
	Sig ID:	734		

Disclaimer Statement

The revisions noted above are the only timing parameters being approved. The remaining timing data was previously approved as part of previous revisions or as part of previous retiming efforts.

Controller Timings

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	NBL	SB	EBL	WB	SBL	NB	WBL	EB	
Turn Type	Prot		Prot/Perm		Prot		Prot/Perm		
Min Green	5	15	5	10	5	15	5	10	
Ext	3.0	5.0	3.0	3.0	3.0	5.0	3.0	3.0	
Yellow	6.0	6.0	4.9	4.9	6.0	6.0	4.9	4.9	
All Red	3.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	
Max I	30	50	30	35	30	50	30	35	
Max II									
Max Limit									
Adjust By									
Walk		7		7		7		10	
Flashing Don't Walk		26		42		22		39	
Detector Memory									
Det. Cross Switch.			YES				YES		
Dual Entry		ON		ON		ON		ON	
Recall		MIN				MIN			

SOP 10

Ring - 1	1	2	3	4
Ring - 2	5	6	7	8

Notes:

1) Add 8 seconds detection delay for side street right turn movements.

1303

Designed By:	
Date:	
Checked By:	
Date:	

Location Details			
Section:	*16020000*	Mile Post:	*22.460*
Major Street:	*SR 600/Hinson Ave*	Orientation:	*E-W*
Minor Street:	*SR 17/10th St*	Orientation:	*N-S*
Signal ID:	*606*	System ID:	*16020G*

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	*EBLT*	*WB*	*SBLT*	*NB*	*WBLT*	*EB*	*NBLT*	*SB*	
Turn Type	*Prot/Perm*		*Prot/Perm*		*Prot/Perm*		*Prot/Perm*		
Min Green	*5*	*12*	*5*	*7*	*5*	*12*	*5*	*7*	
Ext	*3.0*	*5.0*	*3.0*	*3.0*	*3.0*	*5.0*	*3.0*	*3.0*	
Yellow	*4.0*	*4.1*	*3.4*	*3.8*	*4.1*	*4.1*	*3.8*	*3.8*	
All Red	*2.1*	*2.1*	*2.0*	*2.0*	*2.0*	*2.1*	*2.0*	*2.0*	
Max I	*15*	*40*	*15*	*25*	*15*	*40*	*15*	*25*	
Max II	*15*	*35*	*15*	*40*	*20*	*30*	*25*	*30*	
Walk		*7*		*7*		*7*		*7*	
Flashing Don't Walk		*17*		*14*		*17*		*21*	
Detector Memory									
Det. Cross Switch.	*Ø6*		*Ø8*		*Ø2*		*Ø4*		
Dual Entry		*ON*		*ON*		*ON*		*ON*	
Vehicle Recall		*MIN*				*MIN*			
CNA									
Rest In Walk									
Coord Phase		*YES*							

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence
1	*1-1-1*	*90*	*15*	*34*	*15*	*26*	*15*	*34*	*19*	*22*	*12*	*1*
2	*2-1-1*	*100*	*15*	*45*	*15*	*25*	*17*	*43*	*19*	*21*	*28*	*1*
3	*2-2-1*	*100*	*15*	*43*	*15*	*27*	*17*	*41*	*18*	*24*	*28*	*1*
4	*3-1-1*	*120*	*15*	*53*	*15*	*37*	*20*	*48*	*23*	*29*	*29*	*1*

Offset Reference Point
End of Green

Notes:
1) Use 'Max 1' during FREE operation and 'Max II' during coordination
2) Use Fixed Force Offs
3) Sequence 1 used during FREE operation
4) Max recall phases 2 & 6 during coordination
5) Program phase restrictions to omit phase 1 when phase 2 is green, and to omit phase 5 when phase 6 is green, in addition to detector cross switching.
6) Program 3 seconds detection delay for minor street left turn movements
7) Program 8 Seconds detection delay for minor street right turn movements.
8) Controller Brand: Naztec Controller Model: 980
8.a) Program 'Return Hold' during coordination
8.b) Short/Long percentage is 10/22 for all patterns
8.c) Program 'MinPerm' for pedestrian phases during coordination
8.d) Enable 'Stop In Walk' during coordination.
8.e) Program Walk Recycle, "3478_INH" during coordination

SOP 10 (Sequence 1)

Ring - 1	1	2	3	4
Ring - 2	5	6	7	8

Time of Day Plan

Designed By:	Existing
Date:	
Checked By:	
Date:	

System ID: ***16020G***
Section: ***13020000***
Arterial: ***SR 600 / Hinson Ave***
From: ***6th St***
To: ***17th St***

ALL SEASON PLAN

Day	Time	C / S / O	Cycle Length
Monday Thru Friday	0000 - 0530	FREE	FREE
	0530 - 0900	1-1-1	90
	0900 - 1100	2-2-1	100
	1100 - 1300	2-1-1	100
	1300 - 1800	3-1-1	120
	1800 - 2130	2-2-1	100
	2130 -2359	FREE	FREE
Saturday & Sunday	0000 - 0730	FREE	FREE
	0730 - 1000	1-1-1	90
	1000 - 1600	2-2-1	100
	1600- 2100	1-1-1	90
	2100 - 2359	FREE	FREE

1305

Designed By:	
Date:	
Checked By:	
Date:	

Location Details			
Section:	*16020000*	Mile Post:	*22.770*
Major Street:	*SR 600/Hinson Ave*	Orientation:	*E-W*
Minor Street:	*17th St*	Orientation:	*N-S*
Signal ID:	*607*	System ID:	*16020G*

Controller Timings (seconds)

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	*EBLT*	*WB*		*NB*		*EB*		*SB*	
Turn Type	*Prot/Perm*								
Min Green	*5*	*12*		*7*		*12*		*7*	
Ext	*3.0*	*5.0*		*3.0*		*5.0*		*3.0*	
Yellow	*4.0*	*4.0*		*4.0*		*4.0*		*4.0*	
All Red	*2.7*	*2.7*		*2.6*		*2.7*		*2.6*	
Max I	*15*	*40*		*20*		*40*		*20*	
Max II	*40*	*30*		*40*		*60*		*40*	
Walk		*7*		*7*		*7*		*7*	
Flashing Don't Walk		*22*		*16*		*22*		*19*	
Detector Memory									
Det. Cross Switch.	*Ø6*								
Dual Entry		*ON*		*ON*		*ON*		*ON*	
Vehicle Recall		*MIN*				*MIN*			
CNA									
Rest In Walk									
Coord Phase						*YES*			

Coordination Timings (seconds)

Pattern	C-S-O	Cycle Length	Splits								Offset	Sequence
1	*1-1-1*	*90*	*23*	*42*		*25*		*65*		*25*	*5*	*1*
2	*2-1-1*	*100*	*30*	*39*		*31*		*69*		*31*	*5*	*1*
3	*2-2-1*	*100*	*28*	*39*		*33*		*67*		*33*	*5*	*1*
4	*3-1-1*	*120*	*37*	*44*		*39*		*81*		*39*	*5*	*1*

Offset Reference Point
End of Green

Notes:
1) Use 'Max 1' during FREE operation and 'Max II' during coordination
2) Use Floating Force Offs
3) Sequence 1 used during FREE operation
4) Max recall phases 2 & 6 during coordination
5) Program phase restrictions to omit phase 1 when phase 2 is green, in addition to detector cross switching.
6) Program 3 seconds detection delay for minor street left turn movements
7) Program 8 Seconds detection delay for minor street right turn movements.
8) Controller Brand: Naztec Controller Model: 980
8.a) Program 'Return Hold' during coordination
8.b) Short/Long percentage is 10/22 for all patterns
8.c) Program 'MinPerm' for pedestrian phases during coordination
8.d) Enable 'Stop In Walk' during coordination.
8.e) Program Walk Recycle, "3478_INH" during coordination

SOP 11 (Sequence 1)

Ring - 1	1	2	4
Ring - 2	6		8

Time of Day Plan

Designed By:	Existing
Date:	
Checked By:	
Date:	

System ID: ***16020G***
Section: ***13020000***
Arterial: ***SR 600 / Hinson Ave***
From: ***6th St***
To: ***17th St***

ALL SEASON PLAN

Day	Time	C / S / O	Cycle Length
Monday Thru Friday	0000 - 0530	FREE	FREE
	0530 - 0900	1-1-1	90
	0900 - 1100	2-2-1	100
	1100 - 1300	2-1-1	100
	1300 - 1800	3-1-1	120
	1800 - 2130	2-2-1	100
	2130 -2359	FREE	FREE
Saturday & Sunday	0000 - 0730	FREE	FREE
	0730 - 1000	1-1-1	90
	1000 - 1600	2-2-1	100
	1600- 2100	1-1-1	90
	2100 - 2359	FREE	FREE

FDOT - DISTRICT 1

Signal Timing Report

(For isolated traffic signal)

Drawn By:	KGB
Date:	6/2016
Checked By:	RJ
Date:	06/2016

Approved By:

Renjan Joseph, P.E. # 68284

Date: 06/14/2016

Revisions	Location Details	
04/08/2016: Modified preemption plan 5 and 6 preemption operation.	Section: ***16030-000***	Mile Post: ***30.637***
	Major Street: ***US 17***	Orientation: ***E-W***
	Minor Street: ***SR 544***	Orientation: ***N-S***
	Sig ID: ***636***	

Disclaimer Statement

The revisions noted above are the only timing parameters being approved. The remaining timing data was previously approved as part of previous revisions or as part of previous retiming efforts.

Controller Timings

Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	***WBL***	***EB***		***SB***	***EBL***	***WB***		***NB***	
Turn Type	***Prot/Perm***				***Prot/Perm***				
Min Green	***5***	***8***		***10***	***5***	***8***		***10***	
Ext	***6.0***	***6.0***		***6.0***	***6.0***	***6.0***		***6.0***	
Yellow	***4.1***	***4.1***		***4.9***	***4.1***	***4.1***		***4.9***	
All Red	***2.0***	***2.2***		***2.6***	***2.2***	***2.2***		***3.0***	
Max I	***20***	***50***		***55***	***25***	***60***		***65***	
Time Before Reduce	***7.0***	***17.0***		***18.0***	***8.0***	***20.0***		***22.0***	
Time to Reduce	***7.0***	***17.0***		***18.0***	***8.0***	***20.0***		***22.0***	
Min Gap	***4.0***	***2.5***		***4.5***	***2.0***	***2.5***		***2.5***	
Walk		***7***		***7***		***7***		***7***	
Flashing Don't Walk		***27***		***37***		***24***		***24***	
Detector Memory									
Det. Cross Switch.	***YES***				***YES***				
Dual Entry		***ON***				***ON***			
Recall		***MIN***				***MIN***			

SOP 9

Ring - 1	1	2	8	4
Ring - 2	5	6		

Notes:

1) Program phase restrictions to omit phase 1 when phase 2 is green, and omit phase 5 when phase 6 is green, in addition to detector cross switching

2) EBR overlaps with NBL with 8 Seconds Minimum Green, 4.9 Seconds Yellow and 3.0 Seconds All Red.

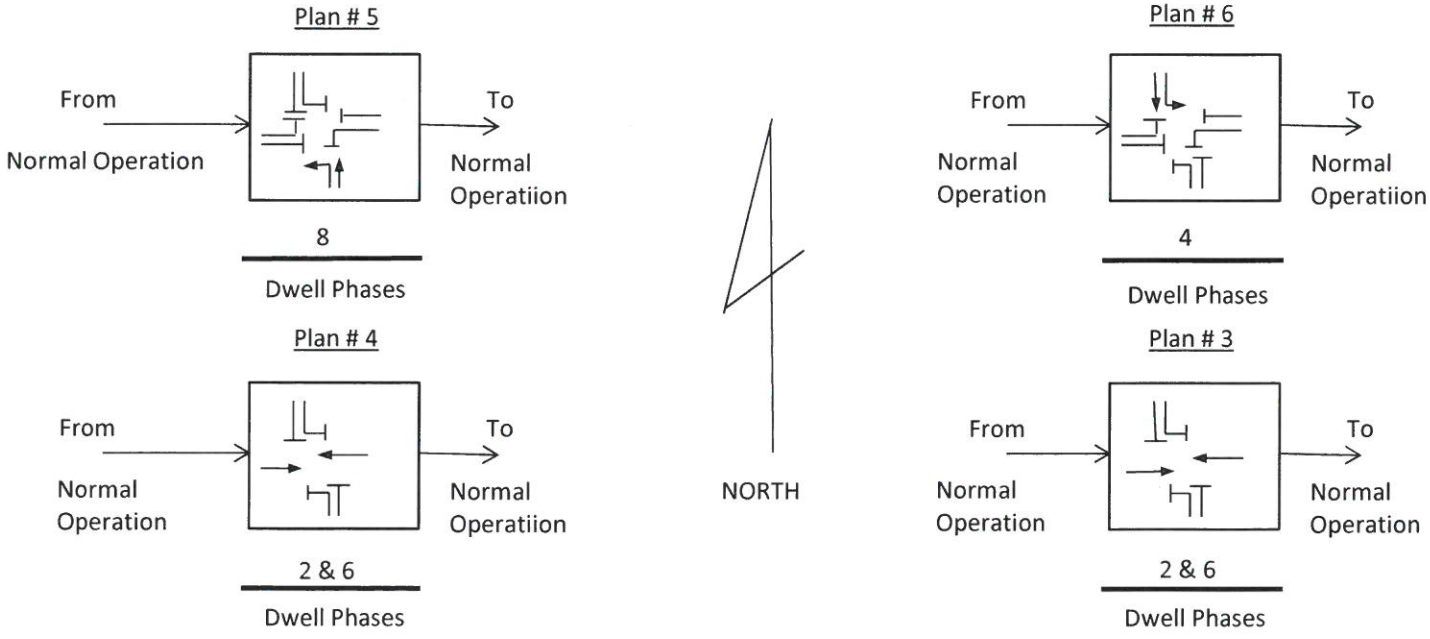
3) Add 8 seconds detection delay for NB and SB right turn movements.

Designed By: [illegible] Checked By: RS Major Street: ***US 17***

Date: 6/2016 Date: 06/2016 Minor Street: ***SR 544***

Emergency Vehicle Preemption

Preemption Timing Plan	1	2	3 (WB)	4 (EB)	5 (NB)	6 (SB)
Priority			6	6	6	6
Delay Before Preemption (Sec)			0	0	0	0
Minimum Green Before Preemption (Sec)			*	*	*	*
Lock Call			OFF	OFF	OFF	OFF
Maximum Presence (sec)			120	120	120	120
Yellow Clearance (Sec)			**	**	**	**
Red Clearance (Sec)			**	**	**	**
Dwell Phase(s)			2 & 6	2 & 6	8	4
Minimum Dwell (Sec)			7	7	10	10
Yellow Clearance (Sec)**			**	**	**	**
Red Clearance (Sec)**			**	**	**	**
Exit Phases			2 & 6	2 & 6	4	4



Notes:

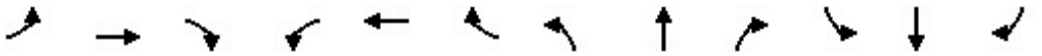
1) * Entry into preemption shall not violate minimum green or pedestrian clearance intervals.

2) ** YELLOW and ALL RED intervals during preemption shall be the same values used during normal controller operations.

APPENDIX D

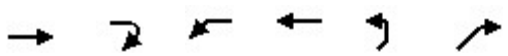
Existing Year (2019)

Synchro Reports



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Future Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1731	1509	1671	1789		1770	3336		1770	3366	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.12	1.00		0.48	1.00	
Satd. Flow (perm)	1665	1731	1509	1671	1789		233	3336		896	3366	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	74	93	252	82	138	35	232	375	98	94	717	309
RTOR Reduction (vph)	0	0	225	0	4	0	0	7	0	0	17	0
Lane Group Flow (vph)	67	100	27	82	169	0	232	466	0	94	1009	0
Heavy Vehicles (%)	3%	4%	7%	8%	3%	3%	2%	3%	12%	2%	3%	1%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	14.2	14.2	14.2	18.8	18.8		78.9	62.9		63.4	53.9	
Effective Green, g (s)	14.2	14.2	14.2	18.8	18.8		78.9	62.9		63.4	53.9	
Actuated g/C Ratio	0.11	0.11	0.11	0.14	0.14		0.60	0.47		0.48	0.41	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	178	185	161	237	253		353	1583		491	1369	
v/s Ratio Prot	0.04	c0.06		0.05	c0.09		c0.09	0.14		0.01	c0.30	
v/s Ratio Perm			0.02				0.30			0.08		
v/c Ratio	0.38	0.54	0.17	0.35	0.67		0.66	0.29		0.19	0.74	
Uniform Delay, d1	55.0	56.1	53.8	51.3	53.9		20.1	21.2		19.0	33.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	3.2	0.5	0.9	6.5		4.4	0.1		0.2	2.1	
Delay (s)	56.4	59.3	54.3	52.2	60.4		24.4	21.4		19.2	35.4	
Level of Service	E	E	D	D	E		C	C		B	D	
Approach Delay (s)		55.8			57.7			22.4			34.0	
Approach LOS		E			E			C			C	

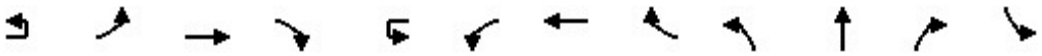
Intersection Summary			
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	132.5	Sum of lost time (s)	27.1
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	292	15	38	144	9	18
Future Volume (Veh/h)	292	15	38	144	9	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	374	19	49	185	12	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			393		666	384
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			393		666	384
tC, single (s)			4.1		6.5	6.4
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.5
p0 queue free %			96		97	96
cM capacity (veh/h)			1160		396	630

Direction, Lane #	EB 1	WB 1	WB 2	NE 1
Volume Total	393	49	185	35
Volume Left	0	49	0	12
Volume Right	19	0	0	23
cSH	1700	1160	1700	524
Volume to Capacity	0.23	0.04	0.11	0.07
Queue Length 95th (ft)	0	3	0	5
Control Delay (s)	0.0	8.2	0.0	12.4
Lane LOS		A		B
Approach Delay (s)	0.0	1.7		12.4
Approach LOS				B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Future Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		0.95
Frt		1.00	0.99			1.00	0.99		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1657	4775			1688	4961		1770	1683		1649
Flt Permitted		0.13	1.00			0.20	1.00		0.95	1.00		0.95
Satd. Flow (perm)		222	4775			358	4961		1770	1683		1649
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	127	1068	45	1	77	1185	59	167	174	41	100
RTOR Reduction (vph)	0	0	3	0	0	0	4	0	0	7	0	0
Lane Group Flow (vph)	0	128	1110	0	0	78	1240	0	167	208	0	90
Heavy Vehicles (%)	0%	9%	7%	31%	0%	7%	4%	0%	2%	7%	21%	4%
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split
Protected Phases	1	1	6		5	5	2		4	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		61.9	52.0			53.9	48.0		17.9	17.9		16.1
Effective Green, g (s)		61.9	52.0			53.9	48.0		17.9	17.9		16.1
Actuated g/C Ratio		0.52	0.43			0.45	0.40		0.15	0.15		0.13
Clearance Time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Vehicle Extension (s)		3.0	5.0			3.0	5.0		5.0	5.0		5.0
Lane Grp Cap (vph)		232	2069			226	1984		264	251		221
v/s Ratio Prot		c0.05	0.23			0.02	c0.25		0.09	c0.12		0.05
v/s Ratio Perm		c0.24				0.14						
v/c Ratio		0.55	0.54			0.35	0.62		0.63	0.83		0.41
Uniform Delay, d1		18.0	25.1			19.4	28.8		48.0	49.6		47.6
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		2.8	1.0			0.9	1.5		6.7	21.8		2.5
Delay (s)		20.8	26.1			20.4	30.3		54.7	71.4		50.1
Level of Service		C	C			C	C		D	E		D
Approach Delay (s)			25.6				29.7			64.1		
Approach LOS			C				C			E		

Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	28.1
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	98
Future Volume (vph)	156	98
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	6.3	6.3
Lane Util. Factor	0.95	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1700	1538
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1700	1538
Peak-hour factor, PHF	0.93	0.93
Adj. Flow (vph)	168	105
RTOR Reduction (vph)	0	91
Lane Group Flow (vph)	178	14
Heavy Vehicles (%)	6%	5%
Turn Type	NA	Perm
Protected Phases	3	
Permitted Phases		3
Actuated Green, G (s)	16.1	16.1
Effective Green, g (s)	16.1	16.1
Actuated g/C Ratio	0.13	0.13
Clearance Time (s)	6.3	6.3
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	228	206
v/s Ratio Prot	c0.10	
v/s Ratio Perm		0.01
v/c Ratio	0.78	0.07
Uniform Delay, d1	50.2	45.4
Progression Factor	1.00	1.00
Incremental Delay, d2	18.1	0.3
Delay (s)	68.3	45.7
Level of Service	E	D
Approach Delay (s)	57.6	
Approach LOS	E	

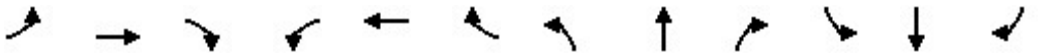
Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Future Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91			0.91	0.91
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99			1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1736	3343	1583	1752	3345		1610	3197			1626	3239
Flt Permitted	0.07	1.00	1.00	0.18	1.00		0.95	1.00			0.95	1.00
Satd. Flow (perm)	136	3343	1583	336	3345		1610	3197			1626	3239
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	171	743	521	168	635	203	342	490	36	1	315	744
RTOR Reduction (vph)	0	0	26	0	15	0	0	2	0	0	0	2
Lane Group Flow (vph)	171	743	495	168	823	0	284	582	0	0	284	826
Heavy Vehicles (%)	4%	8%	2%	3%	4%	4%	2%	7%	9%	0%	1%	6%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	Split	NA
Protected Phases	5	2	8	1	6		8	8		4	4	4
Permitted Phases	2		2	6								
Actuated Green, G (s)	75.7	57.0	103.3	65.9	52.0		46.3	46.3			47.7	47.7
Effective Green, g (s)	75.7	57.0	103.3	65.9	52.0		46.3	46.3			47.7	47.7
Actuated g/C Ratio	0.39	0.30	0.54	0.34	0.27		0.24	0.24			0.25	0.25
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0			6.0	6.0
Lane Grp Cap (vph)	208	988	848	217	902		386	768			402	801
v/s Ratio Prot	c0.08	c0.22	0.14	0.06	c0.25		0.18	c0.18			0.17	c0.25
v/s Ratio Perm	0.24		0.17	0.21								
v/c Ratio	0.82	0.75	0.58	0.77	0.91		0.74	0.76			0.71	1.03
Uniform Delay, d1	54.2	61.4	30.2	48.5	68.2		67.6	68.0			66.1	72.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	25.6	4.3	2.0	19.4	14.5		9.7	5.6			8.1	40.0
Delay (s)	79.8	65.8	32.2	68.0	82.6		77.2	73.6			74.2	112.5
Level of Service	E	E	C	E	F		E	E			E	F
Approach Delay (s)		55.2			80.2			74.8				102.7
Approach LOS		E			F			E				F

Intersection Summary					
HCM 2000 Control Delay	76.7	HCM 2000 Level of Service		E	
HCM 2000 Volume to Capacity ratio	0.90				
Actuated Cycle Length (s)	192.7	Sum of lost time (s)		28.0	
Intersection Capacity Utilization	87.9%	ICU Level of Service		E	
Analysis Period (min)	15				
c Critical Lane Group					

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	47
Future Volume (vph)	47
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	52
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

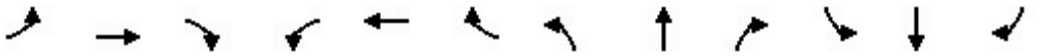
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Future Volume (Veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	124	17	51	42	0	0	0	0	18	1629	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1695	1674	552	658	1683	0	1647			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1231	1207	0	23	1217	0	1176			0		
tC, single (s)	7.5	6.6	6.9	7.6	6.6	6.9	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.3		
p0 queue free %	100	19	98	81	72	100	100			99		
cM capacity (veh/h)	89	153	936	265	149	1084	506			1545		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	124	17	93	425	814	425
Volume Left	0	0	51	18	0	0
Volume Right	0	17	0	0	0	18
cSH	153	936	196	1545	1700	1700
Volume to Capacity	0.81	0.02	0.48	0.01	0.48	0.25
Queue Length 95th (ft)	131	1	58	1	0	0
Control Delay (s)	87.6	8.9	39.0	0.4	0.0	0.0
Lane LOS	F	A	E	A		
Approach Delay (s)	78.1		39.0	0.1		
Approach LOS	F		E			

Intersection Summary				
Average Delay	7.8			
Intersection Capacity Utilization	46.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Future Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1681	1495		1792						4907	
Flt Permitted		1.00	1.00		1.00						1.00	
Satd. Flow (perm)		1681	1495		1792						4907	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	113	881	2	658	0	0	0	0	5	985	66
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	113	850	0	660	0	0	0	0	0	1045	0
Heavy Vehicles (%)	2%	13%	8%	2%	6%	2%	2%	2%	2%	20%	4%	14%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		35.4	35.4		35.4						25.1	
Effective Green, g (s)		35.4	35.4		35.4						25.1	
Actuated g/C Ratio		0.47	0.47		0.47						0.33	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		793	705		845						1642	
v/s Ratio Prot		0.07										
v/s Ratio Perm			c0.57		0.37						0.21	
v/c Ratio		0.14	1.21		0.78						0.64	
Uniform Delay, d1		11.2	19.8		16.6						21.1	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		0.4	105.9		7.1						0.9	
Delay (s)		11.6	125.7		23.6						22.0	
Level of Service		B	F		C						C	
Approach Delay (s)		112.7			23.6			0.0			22.0	
Approach LOS		F			C			A			C	

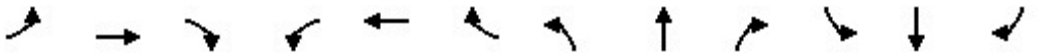
Intersection Summary			
HCM 2000 Control Delay	55.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	118.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Future Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Lane Util. Factor	0.97	1.00	1.00		1.00	1.00	1.00		1.00	0.91	1.00	
Frt	1.00	1.00	0.85		1.00	1.00	0.85		1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	3303	1743	1509		1720	1845	1380		1756	4848	1524	
Flt Permitted	0.28	1.00	1.00		0.65	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	963	1743	1509		1173	1845	1380		1756	4848	1524	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	550	173	171	1	118	216	115	13	195	1279	85	9
RTOR Reduction (vph)	0	0	133	0	0	0	97	0	0	0	56	0
Lane Group Flow (vph)	550	173	38	0	119	216	18	0	208	1279	29	0
Heavy Vehicles (%)	6%	9%	7%	0%	5%	3%	17%	0%	3%	7%	6%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases	8		8	4	4		4				6	
Actuated Green, G (s)	48.4	29.7	29.7		32.4	20.6	20.6		19.1	45.2	45.2	
Effective Green, g (s)	48.4	29.7	29.7		32.4	20.6	20.6		19.1	45.2	45.2	
Actuated g/C Ratio	0.37	0.22	0.22		0.24	0.16	0.16		0.14	0.34	0.34	
Clearance Time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0		3.0	5.0	5.0	
Lane Grp Cap (vph)	720	390	337		335	286	214		252	1652	519	
v/s Ratio Prot	c0.12	0.10			0.03	0.12			c0.12	c0.26		
v/s Ratio Perm	c0.16		0.03		0.06		0.01				0.02	
v/c Ratio	0.76	0.44	0.11		0.36	0.76	0.08		0.83	0.77	0.06	
Uniform Delay, d1	33.3	44.3	41.0		40.7	53.6	47.9		55.1	39.1	29.4	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	4.8	0.8	0.2		0.6	10.8	0.2		19.3	2.7	0.1	
Delay (s)	38.1	45.1	41.1		41.3	64.4	48.1		74.4	41.9	29.5	
Level of Service	D	D	D		D	E	D		E	D	C	
Approach Delay (s)		40.0				54.1				45.5		
Approach LOS		D				D				D		

Intersection Summary			
HCM 2000 Control Delay	44.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	132.6	Sum of lost time (s)	30.8
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

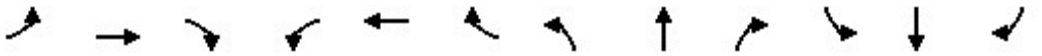
Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	98	998	547
Future Volume (vph)	98	998	547
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	9.0	8.0	8.0
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1490	4715	1495
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1490	4715	1495
Peak-hour factor, PHF	0.94	0.94	0.94
Adj. Flow (vph)	104	1062	582
RTOR Reduction (vph)	0	0	346
Lane Group Flow (vph)	113	1062	236
Heavy Vehicles (%)	23%	10%	8%
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Actuated Green, G (s)	15.1	41.2	41.2
Effective Green, g (s)	15.1	41.2	41.2
Actuated g/C Ratio	0.11	0.31	0.31
Clearance Time (s)	9.0	8.0	8.0
Vehicle Extension (s)	3.0	5.0	5.0
Lane Grp Cap (vph)	169	1464	464
v/s Ratio Prot	0.08	0.23	
v/s Ratio Perm			0.16
v/c Ratio	0.67	0.73	0.51
Uniform Delay, d1	56.4	40.7	37.4
Progression Factor	1.00	1.00	1.00
Incremental Delay, d2	9.6	2.2	1.8
Delay (s)	66.0	42.9	39.2
Level of Service	E	D	D
Approach Delay (s)		43.2	
Approach LOS		D	

Intersection Summary



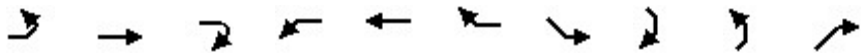
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Future Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1681	1482	1703	1820		1736	1725		1752	1758	
Flt Permitted	0.18	1.00	1.00	0.21	1.00		0.36	1.00		0.45	1.00	
Satd. Flow (perm)	316	1681	1482	385	1820		655	1725		838	1758	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	35	436	85	160	557	9	177	195	133	67	178	60
RTOR Reduction (vph)	0	0	59	0	1	0	0	26	0	0	13	0
Lane Group Flow (vph)	35	436	26	160	565	0	177	302	0	67	225	0
Heavy Vehicles (%)	6%	13%	9%	6%	4%	13%	4%	1%	7%	3%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	31.4	27.1	27.1	39.8	31.3		35.6	24.4		25.8	19.3	
Effective Green, g (s)	31.4	27.1	27.1	39.8	31.3		35.6	24.4		25.8	19.3	
Actuated g/C Ratio	0.35	0.30	0.30	0.44	0.35		0.40	0.27		0.29	0.21	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	176	506	446	294	632		393	467		306	376	
v/s Ratio Prot	0.01	0.26		c0.05	c0.31		c0.06	c0.18		0.02	0.13	
v/s Ratio Perm	0.06		0.02	0.19			0.12			0.05		
v/c Ratio	0.20	0.86	0.06	0.54	0.89		0.45	0.65		0.22	0.60	
Uniform Delay, d1	21.1	29.7	22.4	17.7	27.8		19.0	29.0		23.9	31.9	
Progression Factor	1.00	1.00	1.00	1.24	0.97		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	17.3	0.2	1.7	15.2		0.8	6.8		0.4	6.9	
Delay (s)	21.6	47.0	22.6	23.5	42.3		19.8	35.8		24.3	38.8	
Level of Service	C	D	C	C	D		B	D		C	D	
Approach Delay (s)		41.7			38.2			30.2			35.6	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Future Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1803		1805	1756			1638		1597	1900	1509
Flt Permitted	0.33	1.00		0.62	1.00			0.87		0.73	1.00	1.00
Satd. Flow (perm)	586	1803		1176	1756			1458		1227	1900	1509
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	390	215	8	8	369	120	16	23	3	76	22	348
RTOR Reduction (vph)	0	1	0	0	11	0	0	3	0	0	0	303
Lane Group Flow (vph)	390	222	0	8	478	0	0	39	0	76	22	45
Heavy Vehicles (%)	6%	5%	0%	0%	3%	8%	20%	5%	33%	13%	0%	7%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	64.9	64.9		44.9	44.9			11.8		11.7	11.7	11.7
Effective Green, g (s)	64.9	64.9		44.9	44.9			11.8		11.7	11.7	11.7
Actuated g/C Ratio	0.72	0.72		0.50	0.50			0.13		0.13	0.13	0.13
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	587	1300		586	876			191		159	247	196
v/s Ratio Prot	c0.10	0.12			0.27						0.01	
v/s Ratio Perm	c0.38			0.01				0.03		c0.06		0.03
v/c Ratio	0.66	0.17		0.01	0.55			0.21		0.48	0.09	0.23
Uniform Delay, d1	7.4	4.0		11.4	15.5			34.9		36.3	34.5	35.1
Progression Factor	1.42	1.01		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	1.9	0.2		0.0	2.4			0.5		2.3	0.2	0.6
Delay (s)	12.4	4.2		11.4	18.0			35.5		38.6	34.6	35.7
Level of Service	B	A		B	B			D		D	C	D
Approach Delay (s)		9.5			17.9			35.5			36.2	
Approach LOS		A			B			D			D	

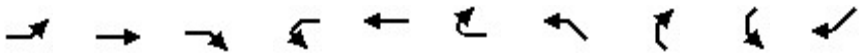
Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	734	0	0	852	195	0	0	0	127
Future Volume (Veh/h)	0	734	0	0	852	195	0	0	0	127
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	798	0	0	926	212	0	0	0	138
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1138			798			1463	1724	1936	399
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1138			798			1463	1724	1936	399
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	77
cM capacity (veh/h)	610			820			69	88	65	601

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	399	399	463	463	212	138
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	212	138
cSH	1700	1700	1700	1700	1700	601
Volume to Capacity	0.23	0.23	0.27	0.27	0.12	0.23
Queue Length 95th (ft)	0	0	0	0	0	22
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	12.8
Lane LOS						B
Approach Delay (s)	0.0		0.0			12.8
Approach LOS						B

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	34.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	512	349	0	722	0	0	0	0	325
Future Volume (Veh/h)	0	512	349	0	722	0	0	0	0	325
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	557	379	0	785	0	0	0	0	353
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	785			936			1302	1342	1721	392
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	785			936			1302	1342	1721	392
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	42
cM capacity (veh/h)	829			727			49	151	88	606

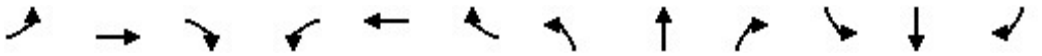
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	278	278	379	392	392	353
Volume Left	0	0	0	0	0	0
Volume Right	0	0	379	0	0	353
cSH	1700	1700	1700	1700	1700	606
Volume to Capacity	0.16	0.16	0.22	0.23	0.23	0.58
Queue Length 95th (ft)	0	0	0	0	0	93
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	18.9
Lane LOS						C
Approach Delay (s)	0.0			0.0		18.9
Approach LOS						C

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	46.7%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	512	0	0	722	0	201
Future Volume (Veh/h)	512	0	0	722	0	201
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	557	0	0	785	0	218
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			557		950	278
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			557		950	278
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	70
cM capacity (veh/h)			1010		258	719

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	278	278	392	392	218
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	218
cSH	1700	1700	1700	1700	719
Volume to Capacity	0.16	0.16	0.23	0.23	0.30
Queue Length 95th (ft)	0	0	0	0	32
Control Delay (s)	0.0	0.0	0.0	0.0	12.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.2
Approach LOS					B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Future Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1698	1754	1553	1671	1792		1719	3442		1736	3411	
Flt Permitted	0.95	0.99	1.00	0.95	1.00		0.24	1.00		0.34	1.00	
Satd. Flow (perm)	1698	1754	1553	1671	1792		426	3442		618	3411	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	221	145	234	79	118	48	277	660	104	58	476	90
RTOR Reduction (vph)	0	0	191	0	8	0	0	5	0	0	7	0
Lane Group Flow (vph)	179	187	43	79	158	0	277	759	0	58	559	0
Heavy Vehicles (%)	1%	2%	4%	8%	2%	0%	5%	3%	1%	4%	3%	5%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	21.2	21.2	21.2	17.8	17.8		55.1	41.6		36.3	29.3	
Effective Green, g (s)	21.2	21.2	21.2	17.8	17.8		55.1	41.6		36.3	29.3	
Actuated g/C Ratio	0.18	0.18	0.18	0.16	0.16		0.48	0.36		0.32	0.26	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	313	324	287	259	278		422	1248		263	871	
v/s Ratio Prot	0.11	c0.11		0.05	c0.09		c0.11	0.22		0.01	0.16	
v/s Ratio Perm			0.03				c0.20			0.06		
v/c Ratio	0.57	0.58	0.15	0.31	0.57		0.66	0.61		0.22	0.64	
Uniform Delay, d1	42.6	42.7	39.2	43.0	44.9		20.3	29.9		27.7	38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.5	2.5	0.2	0.7	2.7		3.7	0.8		0.4	1.6	
Delay (s)	45.1	45.1	39.4	43.6	47.6		24.0	30.7		28.2	39.7	
Level of Service	D	D	D	D	D		C	C		C	D	
Approach Delay (s)		42.9			46.3			28.9			38.6	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	114.7	Sum of lost time (s)	27.1
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	215	11	62	271	16	29
Future Volume (Veh/h)	215	11	62	271	16	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	244	12	70	308	18	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			256		698	250
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			256		698	250
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			95		95	96
cM capacity (veh/h)			1309		370	794

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	256	70	308	51
Volume Left	0	70	0	18
Volume Right	12	0	0	33
cSH	1700	1309	1700	565
Volume to Capacity	0.15	0.05	0.18	0.09
Queue Length 95th (ft)	0	4	0	7
Control Delay (s)	0.0	7.9	0.0	12.0
Lane LOS		A		B
Approach Delay (s)	0.0	1.5		12.0
Approach LOS				B

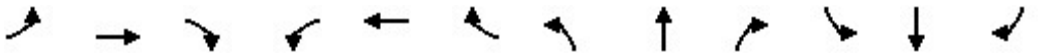
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Future Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Lane Util. Factor	1.00	0.91			1.00	0.91		1.00	1.00		0.95	0.95
Frt	1.00	0.99			1.00	0.99		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00		0.95	0.99
Satd. Flow (prot)	1752	5150			1532	4890		1752	1756		1665	1708
Flt Permitted	0.08	1.00			0.12	1.00		0.95	1.00		0.95	0.99
Satd. Flow (perm)	139	5150			193	4890		1752	1756		1665	1708
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	167	1373	49	3	45	1302	129	116	193	48	160	106
RTOR Reduction (vph)	0	2	0	0	0	8	0	0	7	0	0	0
Lane Group Flow (vph)	167	1420	0	0	48	1423	0	116	234	0	131	135
Heavy Vehicles (%)	3%	0%	6%	0%	19%	5%	1%	3%	4%	9%	3%	5%
Turn Type	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split	NA
Protected Phases	1	6		5	5	2		4	4		3	3
Permitted Phases	6			2	2							
Actuated Green, G (s)	68.7	56.2			55.7	49.7		24.9	24.9		14.8	14.8
Effective Green, g (s)	68.7	56.2			55.7	49.7		24.9	24.9		14.8	14.8
Actuated g/C Ratio	0.53	0.43			0.43	0.38		0.19	0.19		0.11	0.11
Clearance Time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Vehicle Extension (s)	3.0	5.0			3.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	228	2226			144	1869		335	336		189	194
v/s Ratio Prot	c0.07	c0.28			0.02	0.29		0.07	c0.13		0.08	c0.08
v/s Ratio Perm	c0.32				0.13							
v/c Ratio	0.73	0.64			0.33	0.76		0.35	0.70		0.69	0.70
Uniform Delay, d1	28.7	28.9			23.1	35.0		45.5	49.0		55.4	55.4
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	11.5	1.4			1.4	3.0		1.3	7.7		13.1	13.0
Delay (s)	40.1	30.3			24.5	38.0		46.8	56.8		68.5	68.4
Level of Service	D	C			C	D		D	E		E	E
Approach Delay (s)		31.4				37.5			53.5			63.7
Approach LOS		C				D			D			E

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.1
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

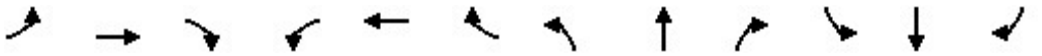
Movement	SBR
Lane Configurations	
Traffic Volume (vph)	102
Future Volume (vph)	102
Ideal Flow (vphpl)	1900
Total Lost time (s)	6.3
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1568
Flt Permitted	1.00
Satd. Flow (perm)	1568
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	106
RTOR Reduction (vph)	94
Lane Group Flow (vph)	12
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	14.8
Effective Green, g (s)	14.8
Actuated g/C Ratio	0.11
Clearance Time (s)	6.3
Vehicle Extension (s)	5.0
Lane Grp Cap (vph)	178
v/s Ratio Prot	
v/s Ratio Perm	0.01
v/c Ratio	0.07
Uniform Delay, d1	51.4
Progression Factor	1.00
Incremental Delay, d2	0.3
Delay (s)	51.8
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Future Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3374	1583	1736	3347		1610	3258		1610	3226	
Flt Permitted	0.07	1.00	1.00	0.14	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	136	3374	1583	247	3347		1610	3258		1610	3226	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	162	790	329	122	616	193	415	695	42	225	677	82
RTOR Reduction (vph)	0	0	31	0	15	0	0	2	0	0	4	0
Lane Group Flow (vph)	163	790	298	122	794	0	373	777	0	202	778	0
Heavy Vehicles (%)	4%	7%	2%	4%	4%	4%	2%	5%	8%	2%	6%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	5	2	8	1	6		8	8		4	4	
Permitted Phases	2		2	6								
Actuated Green, G (s)	74.9	56.6	110.9	65.5	51.8		54.3	54.3		47.6	47.6	
Effective Green, g (s)	74.9	56.6	110.9	65.5	51.8		54.3	54.3		47.6	47.6	
Actuated g/C Ratio	0.37	0.28	0.55	0.33	0.26		0.27	0.27		0.24	0.24	
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	197	954	877	182	866		437	884		383	767	
v/s Ratio Prot	c0.08	c0.23	0.09	0.05	c0.24		0.23	c0.24		0.13	c0.24	
v/s Ratio Perm	0.23		0.10	0.17								
v/c Ratio	0.83	0.83	0.34	0.67	0.92		0.85	0.88		0.53	1.01	
Uniform Delay, d1	56.2	67.1	24.5	51.8	72.0		69.1	69.7		66.4	76.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	27.3	7.0	0.7	14.0	15.4		16.8	11.1		3.3	36.2	
Delay (s)	83.6	74.2	25.1	65.8	87.4		85.9	80.8		69.7	112.4	
Level of Service	F	E	C	E	F		F	F		E	F	
Approach Delay (s)		62.8			84.6			82.4			103.6	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	81.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	200.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Future Volume (Veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	23	5	48	30	0	0	0	0	20	1587	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1648	1633	535	586	1639	0	1599			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1209	1191	0	0	1198	0	1152			0		
tC, single (s)	7.5	6.8	6.9	7.6	6.6	6.9	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.6	4.1	3.3	2.2			2.3		
p0 queue free %	100	84	99	94	80	100	100			99		
cM capacity (veh/h)	103	145	945	758	152	1091	532			1558		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	23	5	78	417	794	409
Volume Left	0	0	48	20	0	0
Volume Right	0	5	0	0	0	12
cSH	145	945	298	1558	1700	1700
Volume to Capacity	0.16	0.01	0.26	0.01	0.47	0.24
Queue Length 95th (ft)	14	0	26	1	0	0
Control Delay (s)	34.5	8.8	21.3	0.5	0.0	0.0
Lane LOS	D	A	C	A		
Approach Delay (s)	29.9		21.3	0.1		
Approach LOS	D		C			

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	47.8%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Future Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1329	1599		1809						4843	
Flt Permitted		1.00	1.00		1.00						1.00	
Satd. Flow (perm)		1329	1599		1803						4843	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	100	835	10	590	0	0	0	0	7	896	67
RTOR Reduction (vph)	0	0	30	0	0	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	100	805	0	600	0	0	0	0	0	958	0
Heavy Vehicles (%)	0%	43%	1%	0%	5%	0%	0%	0%	0%	33%	5%	16%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		36.8	36.8		36.8						23.7	
Effective Green, g (s)		36.8	36.8		36.8						23.7	
Actuated g/C Ratio		0.49	0.49		0.49						0.32	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		652	784		884						1530	
v/s Ratio Prot		0.08										
v/s Ratio Perm			c0.50		0.33						0.20	
v/c Ratio		0.15	1.03		0.68						0.63	
Uniform Delay, d1		10.5	19.1		14.6						21.9	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		0.5	39.3		4.2						0.8	
Delay (s)		11.0	58.4		18.8						22.7	
Level of Service		B	E		B						C	
Approach Delay (s)		53.3			18.8			0.0			22.7	
Approach LOS		D			B			A			C	

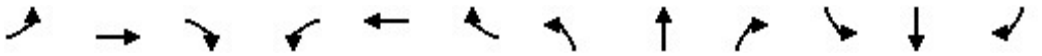
Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Future Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	3303	1776	1468	1719	1827	1369		1743	4848	1553		1528
Flt Permitted	0.34	1.00	1.00	0.63	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1178	1776	1468	1133	1827	1369		1743	4848	1553		1528
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	519	211	126	104	172	102	17	142	1319	120	6	127
RTOR Reduction (vph)	0	0	100	0	0	88	0	0	0	79	0	0
Lane Group Flow (vph)	519	211	26	104	172	14	0	159	1319	41	0	133
Heavy Vehicles (%)	6%	7%	10%	5%	4%	18%	0%	4%	7%	4%	0%	19%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	3	8		7	4		1	1	6		5	5
Permitted Phases	8		8	4		4				6		
Actuated Green, G (s)	44.2	26.4	26.4	28.2	17.3	17.3		16.2	42.8	42.8		15.8
Effective Green, g (s)	44.2	26.4	26.4	28.2	17.3	17.3		16.2	42.8	42.8		15.8
Actuated g/C Ratio	0.35	0.21	0.21	0.22	0.14	0.14		0.13	0.34	0.34		0.12
Clearance Time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0		3.0
Lane Grp Cap (vph)	746	370	305	302	249	186		222	1637	524		190
v/s Ratio Prot	c0.11	0.12		0.03	0.09			c0.09	0.27			0.09
v/s Ratio Perm	c0.13		0.02	0.05		0.01				0.03		
v/c Ratio	0.70	0.57	0.09	0.34	0.69	0.07		0.72	0.81	0.08		0.70
Uniform Delay, d1	32.6	45.1	40.4	40.8	52.1	47.7		53.0	38.2	28.5		53.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	2.8	2.1	0.1	0.7	8.0	0.2		10.5	3.4	0.1		10.7
Delay (s)	35.4	47.2	40.5	41.4	60.2	47.9		63.5	41.6	28.7		63.9
Level of Service	D	D	D	D	E	D		E	D	C		E
Approach Delay (s)		39.0			51.7				42.8			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	42.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	126.7	Sum of lost time (s)	30.8
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

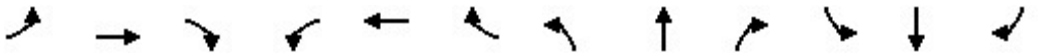
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1293	539
Future Volume (vph)	1293	539
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	8.0
Lane Util. Factor	0.91	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	4803	1495
Flt Permitted	1.00	1.00
Satd. Flow (perm)	4803	1495
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1347	561
RTOR Reduction (vph)	0	373
Lane Group Flow (vph)	1347	188
Heavy Vehicles (%)	8%	8%
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	42.4	42.4
Effective Green, g (s)	42.4	42.4
Actuated g/C Ratio	0.33	0.33
Clearance Time (s)	8.0	8.0
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	1607	500
v/s Ratio Prot	c0.28	
v/s Ratio Perm		0.13
v/c Ratio	0.84	0.38
Uniform Delay, d1	39.0	32.1
Progression Factor	1.00	1.00
Incremental Delay, d2	4.5	1.0
Delay (s)	43.4	33.1
Level of Service	D	C
Approach Delay (s)	41.9	
Approach LOS	D	

Intersection Summary



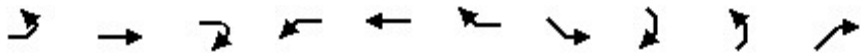
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Future Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1827	1524	1703	1805		1719	1672		1770	1761	
Flt Permitted	0.30	1.00	1.00	0.12	1.00		0.22	1.00		0.35	1.00	
Satd. Flow (perm)	530	1827	1524	221	1805		404	1672		647	1761	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	33	583	131	167	526	13	172	155	192	94	265	54
RTOR Reduction (vph)	0	0	83	0	1	0	0	37	0	0	6	0
Lane Group Flow (vph)	33	583	48	167	538	0	172	310	0	94	313	0
Heavy Vehicles (%)	6%	4%	6%	6%	5%	0%	5%	2%	6%	2%	5%	6%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	48.5	44.1	44.1	61.8	51.3		45.6	32.1		35.6	26.9	
Effective Green, g (s)	48.5	44.1	44.1	61.8	51.3		45.6	32.1		35.6	26.9	
Actuated g/C Ratio	0.40	0.37	0.37	0.51	0.43		0.38	0.27		0.30	0.22	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	671	560	257	771		301	447		273	394	
v/s Ratio Prot	0.00	c0.32		c0.06	c0.30		c0.06	c0.19		0.02	c0.18	
v/s Ratio Perm	0.05		0.03	0.27			0.15			0.08		
v/c Ratio	0.13	0.87	0.09	0.65	0.70		0.57	0.69		0.34	0.79	
Uniform Delay, d1	22.8	35.3	24.8	22.6	28.0		27.5	39.5		31.8	43.9	
Progression Factor	1.00	1.00	1.00	1.29	0.87		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	14.3	0.3	5.0	4.7		2.6	8.6		0.8	15.1	
Delay (s)	23.1	49.6	25.1	34.2	29.2		30.1	48.1		32.6	59.1	
Level of Service	C	D	C	C	C		C	D		C	E	
Approach Delay (s)		44.1			30.4			42.2			53.0	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Future Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1830		1444	1726			1662		1719	1900	1524
Flt Permitted	0.42	1.00		0.54	1.00			0.84		0.72	1.00	1.00
Satd. Flow (perm)	744	1830		823	1726			1417		1294	1900	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	369	360	9	4	283	115	34	45	8	135	98	380
RTOR Reduction (vph)	0	1	0	0	8	0	0	3	0	0	0	321
Lane Group Flow (vph)	369	368	0	4	390	0	0	84	0	135	98	59
Heavy Vehicles (%)	6%	3%	22%	25%	3%	11%	9%	14%	0%	5%	0%	6%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	88.0	88.0		65.7	65.7			18.7		18.6	18.6	18.6
Effective Green, g (s)	88.0	88.0		65.7	65.7			18.7		18.6	18.6	18.6
Actuated g/C Ratio	0.73	0.73		0.55	0.55			0.16		0.16	0.16	0.16
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	670	1342		450	944			220		200	294	236
v/s Ratio Prot	c0.07	0.20			0.23						0.05	
v/s Ratio Perm	c0.33			0.00				0.06		c0.10		0.04
v/c Ratio	0.55	0.27		0.01	0.41			0.38		0.68	0.33	0.25
Uniform Delay, d1	7.1	5.3		12.3	15.9			45.4		47.8	45.2	44.6
Progression Factor	1.14	1.09		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	0.3		0.0	1.3			1.1		8.7	0.7	0.6
Delay (s)	8.7	6.1		12.4	17.2			46.5		56.5	45.8	45.1
Level of Service	A	A		B	B			D		E	D	D
Approach Delay (s)		7.4			17.2			46.5			47.8	
Approach LOS		A			B			D			D	

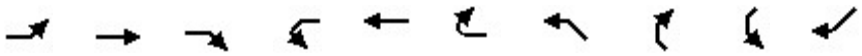
Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	869	0	0	823	203	0	0	0	264
Future Volume (Veh/h)	0	869	0	0	823	203	0	0	0	264
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	945	0	0	895	221	0	0	0	287
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1116			945			1654	1840	2061	472
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1116			945			1654	1840	2061	472
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	47
cM capacity (veh/h)	622			722			30	75	54	538

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	472	472	448	448	221	287
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	221	287
cSH	1700	1700	1700	1700	1700	538
Volume to Capacity	0.28	0.28	0.26	0.26	0.13	0.53
Queue Length 95th (ft)	0	0	0	0	0	78
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	19.1
Lane LOS						C
Approach Delay (s)	0.0		0.0			19.1
Approach LOS						C

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	47.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	858	275	0	794	0	0	0	0	232
Future Volume (Veh/h)	0	858	275	0	794	0	0	0	0	232
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	933	299	0	863	0	0	0	0	252
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	863			1232			1616	1796	2095	432
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	863			1232			1616	1796	2095	432
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	56
cM capacity (veh/h)	775			561			39	79	52	572

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	466	466	299	432	432	252
Volume Left	0	0	0	0	0	0
Volume Right	0	0	299	0	0	252
cSH	1700	1700	1700	1700	1700	572
Volume to Capacity	0.27	0.27	0.18	0.25	0.25	0.44
Queue Length 95th (ft)	0	0	0	0	0	56
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	16.2
Lane LOS						C
Approach Delay (s)	0.0			0.0		16.2
Approach LOS						C

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	44.1%	ICU Level of Service		A
Analysis Period (min)	15			

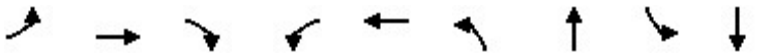
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	858	0	0	794	0	221
Future Volume (Veh/h)	858	0	0	794	0	221
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	933	0	0	863	0	240
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			933		1364	466
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			933		1364	466
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	56
cM capacity (veh/h)			729		139	543

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	466	466	432	432	240
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	240
cSH	1700	1700	1700	1700	543
Volume to Capacity	0.27	0.27	0.25	0.25	0.44
Queue Length 95th (ft)	0	0	0	0	56
Control Delay (s)	0.0	0.0	0.0	0.0	16.8
Lane LOS					C
Approach Delay (s)	0.0		0.0		16.8
Approach LOS					C

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

Queues
1: Berkley Rd & Dixie Hwy

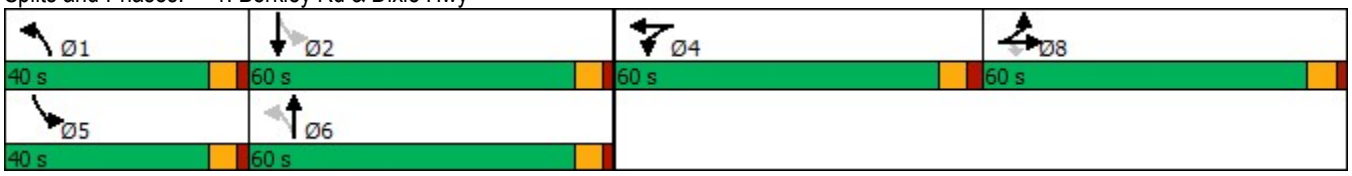
06/11/2024



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	65	82	222	72	121	204	330	83	631
Future Volume (vph)	65	82	222	72	121	204	330	83	631
Lane Group Flow (vph)	67	100	252	82	173	232	473	94	1026
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	60.0	60.0	60.0	60.0	60.0	40.0	60.0	40.0	60.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	18.2%	27.3%	18.2%	27.3%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	14.2	14.2	14.2	18.8	18.8	78.6	62.9	63.6	53.9
Actuated g/C Ratio	0.11	0.11	0.11	0.14	0.14	0.59	0.47	0.48	0.41
v/c Ratio	0.38	0.54	0.65	0.35	0.67	0.66	0.30	0.19	0.74
Control Delay	64.2	69.8	15.3	57.6	67.4	28.1	22.5	15.1	38.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	69.8	15.3	57.6	67.4	28.1	22.5	15.1	38.7
LOS	E	E	B	E	E	C	C	B	D
Approach Delay		36.1			64.3		24.3		36.8
Approach LOS		D			E		C		D
Queue Length 50th (ft)	56	86	0	64	137	87	122	32	376
Queue Length 95th (ft)	117	164	79	127	237	200	196	70	582
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	675	702	761	675	725	531	1588	756	1383
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.14	0.33	0.12	0.24	0.44	0.30	0.12	0.74

Intersection Summary	
Cycle Length: 220	
Actuated Cycle Length: 132.8	
Natural Cycle: 180	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 36.0	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Berkley Rd & Dixie Hwy

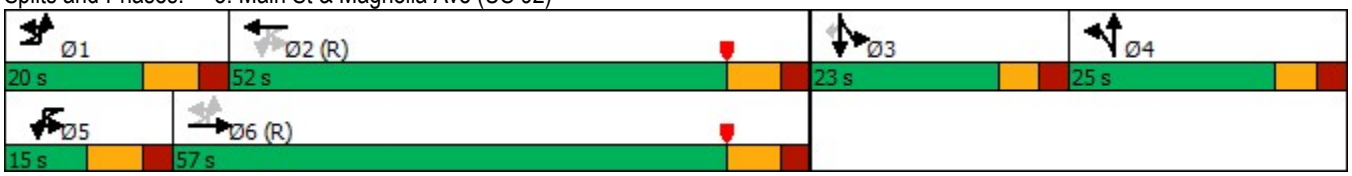


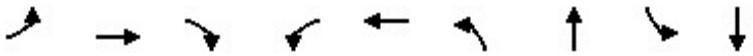
Lane Group	EBU	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Future Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Lane Group Flow (vph)	0	128	1113	0	78	1244	167	215	90	178	105
Turn Type	pm+pt	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	1	6	5	5	2	4	4	3	3	
Permitted Phases	6	6		2	2						3
Detector Phase	1	1	6	5	5	2	4	4	3	3	3
Switch Phase											
Minimum Initial (s)	5.0	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	12.6	41.6	12.6	12.6	40.6	51.6	51.6	53.3	53.3	53.3
Total Split (s)	20.0	20.0	57.0	15.0	15.0	52.0	25.0	25.0	23.0	23.0	23.0
Total Split (%)	16.7%	16.7%	47.5%	12.5%	12.5%	43.3%	20.8%	20.8%	19.2%	19.2%	19.2%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	C-Max	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)		62.1	53.5		55.1	48.0	17.9	17.9	16.1	16.1	16.1
Actuated g/C Ratio		0.52	0.45		0.46	0.40	0.15	0.15	0.13	0.13	0.13
v/c Ratio		0.55	0.52		0.32	0.63	0.63	0.84	0.41	0.78	0.30
Control Delay		23.2	26.0		17.8	30.9	59.6	74.8	53.4	73.6	2.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		23.2	26.0		17.8	30.9	59.6	74.8	53.4	73.6	2.6
LOS		C	C		B	C	E	E	D	E	A
Approach Delay			25.7			30.2		68.2		48.7	
Approach LOS			C			C		E		D	
Queue Length 50th (ft)		48	237		28	282	122	157	67	141	0
Queue Length 95th (ft)		82	283		54	345	198	#285	124	#253	4
Internal Link Dist (ft)			1129			1072		1025		971	
Turn Bay Length (ft)		120			80		300		150		155
Base Capacity (vph)		266	2133		247	1988	271	264	229	236	361
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0
Reduced v/c Ratio		0.48	0.52		0.32	0.63	0.62	0.81	0.39	0.75	0.29

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 88 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow		
Natural Cycle: 160		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.84		
Intersection Signal Delay: 35.0	Intersection LOS: C	
Intersection Capacity Utilization 71.6%	ICU Level of Service C	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)





Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	676	474	153	578	311	446	287	677
Future Volume (vph)	156	676	474	153	578	311	446	287	677
Lane Group Flow (vph)	171	743	521	168	838	284	584	284	828
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	25.0	65.0	65.0	20.0	60.0	65.0	65.0	55.0	55.0
Total Split (%)	12.2%	31.7%	31.7%	9.8%	29.3%	31.7%	31.7%	26.8%	26.8%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	75.6	56.9	109.5	66.1	52.0	46.3	46.3	47.7	47.7
Actuated g/C Ratio	0.39	0.30	0.57	0.34	0.27	0.24	0.24	0.25	0.25
v/c Ratio	0.82	0.75	0.56	0.77	0.91	0.74	0.76	0.71	1.03
Control Delay	79.8	67.8	25.6	65.4	81.5	79.6	74.5	78.7	108.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.8	67.8	25.6	65.4	81.5	79.6	74.5	78.7	108.0
LOS	E	E	C	E	F	E	E	E	F
Approach Delay		53.9			78.8		76.2		100.5
Approach LOS		D			E		E		F
Queue Length 50th (ft)	162	454	367	142	538	373	384	371	~628
Queue Length 95th (ft)	#326	573	478	#230	#707	502	462	534	#839
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	209	1022	1011	217	949	478	952	402	803
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.73	0.52	0.77	0.88	0.59	0.61	0.71	1.03

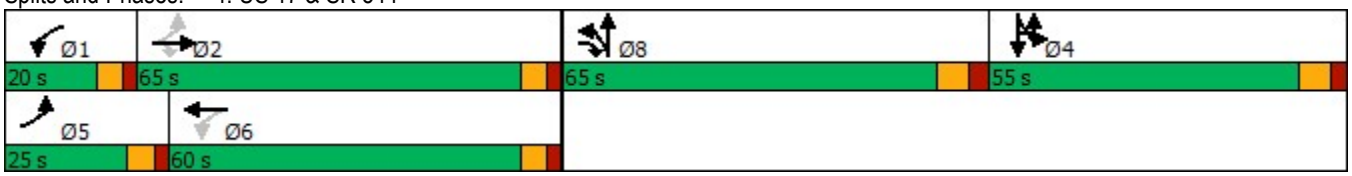
Intersection Summary	
Cycle Length: 205	
Actuated Cycle Length: 192.7	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 75.7	Intersection LOS: E
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544

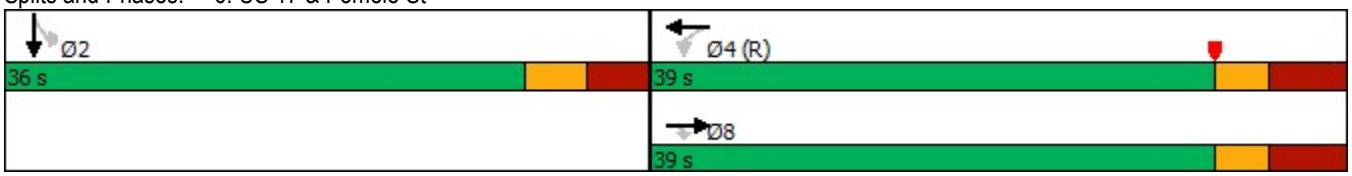


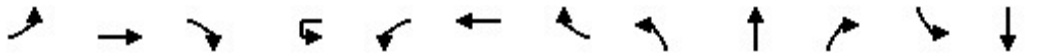
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	103	802	2	599	896
Future Volume (vph)	103	802	2	599	896
Lane Group Flow (vph)	113	881	0	660	1056
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	39.0	39.0	39.0	39.0	36.0
Total Split (%)	52.0%	52.0%	52.0%	52.0%	48.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	Min
Act Effct Green (s)	35.4	35.4		35.4	25.1
Actuated g/C Ratio	0.47	0.47		0.47	0.33
v/c Ratio	0.14	1.20		0.78	0.64
Control Delay	13.1	124.1		26.4	22.3
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	13.1	124.1		26.4	22.3
LOS	B	F		C	C
Approach Delay	111.5			26.4	22.3
Approach LOS	F			C	C
Queue Length 50th (ft)	29	~497		246	146
Queue Length 95th (ft)	63	#751		#476	174
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	793	736		845	1908
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.14	1.20		0.78	0.55

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 4 (5%), Referenced to phase 4:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 56.0	Intersection LOS: E
Intersection Capacity Utilization 118.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St





Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Future Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Lane Group Flow (vph)	550	173	171	0	119	216	115	208	1279	85	113	1062
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	3	8		7	7	4		1	6		5	2
Permitted Phases	8		8	4	4		4			6		
Detector Phase	3	8	8	7	7	4	4	1	6	6	5	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0
Total Split (s)	30.0	35.0	35.0	30.0	30.0	35.0	35.0	30.0	50.0	50.0	30.0	50.0
Total Split (%)	20.7%	24.1%	24.1%	20.7%	20.7%	24.1%	24.1%	20.7%	34.5%	34.5%	20.7%	34.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9		6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	48.5	29.7	29.7		32.4	20.6	20.6	19.1	45.2	45.2	15.1	41.2
Actuated g/C Ratio	0.36	0.22	0.22		0.24	0.16	0.16	0.14	0.34	0.34	0.11	0.31
v/c Ratio	0.76	0.44	0.36		0.36	0.76	0.33	0.83	0.78	0.14	0.67	0.73
Control Delay	39.8	49.2	8.4		33.0	71.5	4.9	82.5	44.7	0.5	77.3	45.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	49.2	8.4		33.0	71.5	4.9	82.5	44.7	0.5	77.3	45.5
LOS	D	D	A		C	E	A	F	D	A	E	D
Approach Delay		35.6				44.3			47.3			36.6
Approach LOS		D				D			D			D
Queue Length 50th (ft)	191	133	0		72	188	0	182	373	0	99	313
Queue Length 95th (ft)	242	214	60		118	278	20	#325	#498	0	168	395
Internal Link Dist (ft)		1032				1401			1080			1389
Turn Bay Length (ft)	525		580		600		390	800		860	790	
Base Capacity (vph)	761	413	488		483	393	418	279	1647	616	237	1503
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.42	0.35		0.25	0.55	0.28	0.75	0.78	0.14	0.48	0.71

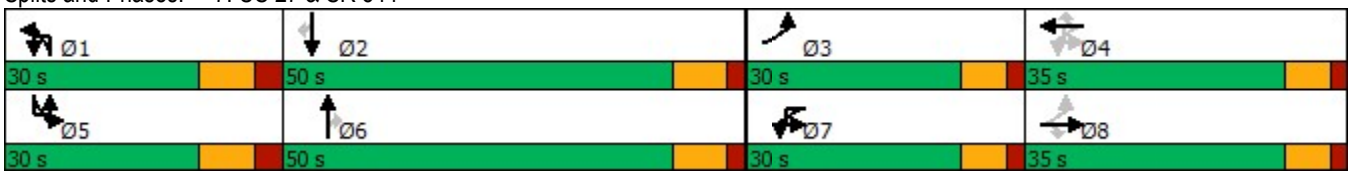
Intersection Summary		
Cycle Length: 145		
Actuated Cycle Length: 132.9		
Natural Cycle: 125		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.83		
Intersection Signal Delay: 40.8	Intersection LOS: D	
Intersection Capacity Utilization 81.2%	ICU Level of Service D	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		

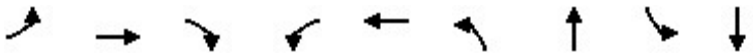
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	547
Future Volume (vph)	547
Lane Group Flow (vph)	582
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	41.0
Total Split (s)	50.0
Total Split (%)	34.5%
Yellow Time (s)	6.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	8.0
Lead/Lag	Lag
Lead-Lag Optimize?	
Recall Mode	Min
Act Effct Green (s)	41.2
Actuated g/C Ratio	0.31
v/c Ratio	0.72
Control Delay	12.5
Queue Delay	0.0
Total Delay	12.5
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	53
Queue Length 95th (ft)	215
Internal Link Dist (ft)	
Turn Bay Length (ft)	880
Base Capacity (vph)	818
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.71

Intersection Summary

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544



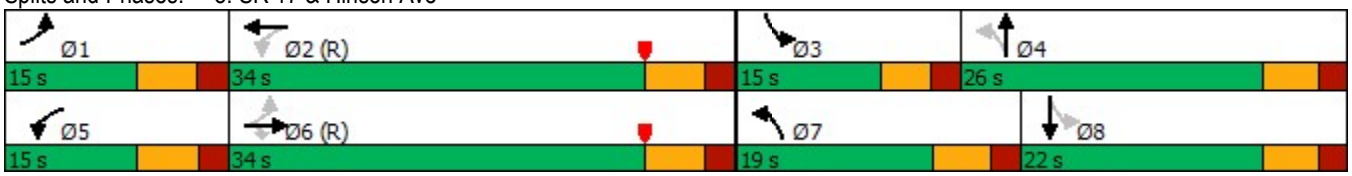


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	31	384	75	141	490	156	172	59	157
Future Volume (vph)	31	384	75	141	490	156	172	59	157
Lane Group Flow (vph)	35	436	85	160	566	177	328	67	238
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	15.0	34.0	34.0	15.0	34.0	19.0	26.0	15.0	22.0
Total Split (%)	16.7%	37.8%	37.8%	16.7%	37.8%	21.1%	28.9%	16.7%	24.4%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	34.8	28.2	28.2	40.3	34.9	34.0	24.4	26.2	18.2
Actuated g/C Ratio	0.39	0.31	0.31	0.45	0.39	0.38	0.27	0.29	0.20
v/c Ratio	0.16	0.83	0.15	0.54	0.80	0.46	0.67	0.21	0.65
Control Delay	14.7	44.3	0.5	23.2	35.3	23.0	35.6	19.5	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	44.3	0.5	23.2	35.3	23.0	35.6	19.5	41.0
LOS	B	D	A	C	D	C	D	B	D
Approach Delay		35.8			32.6		31.2		36.2
Approach LOS		D			C		C		D
Queue Length 50th (ft)	10	230	0	41	192	67	154	23	117
Queue Length 95th (ft)	26	#377	0	116	#500	112	#279	49	#215
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	267	526	582	302	706	410	492	360	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.83	0.15	0.53	0.80	0.43	0.67	0.19	0.65

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 12 (13%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 33.6		Intersection LOS: C	
Intersection Capacity Utilization 70.5%		ICU Level of Service C	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: SR 17 & Hinson Ave

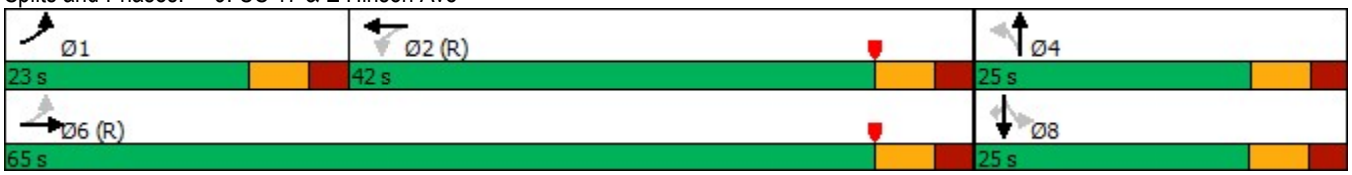


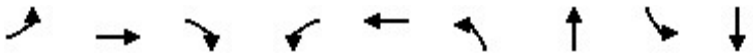
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	363	200	7	343	15	21	71	20	324
Future Volume (vph)	363	200	7	343	15	21	71	20	324
Lane Group Flow (vph)	390	223	8	489	0	42	76	22	348
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	23.0	65.0	42.0	42.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	25.6%	72.2%	46.7%	46.7%	27.8%	27.8%	27.8%	27.8%	27.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	64.9	64.9	45.0	45.0		11.8	11.7	11.7	11.7
Actuated g/C Ratio	0.72	0.72	0.50	0.50		0.13	0.13	0.13	0.13
v/c Ratio	0.66	0.17	0.01	0.55		0.22	0.48	0.09	0.70
Control Delay	11.5	4.9	15.1	19.6		33.8	45.1	32.8	12.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	11.5	4.9	15.1	19.6		33.8	45.1	32.8	12.0
LOS	B	A	B	B		C	D	C	B
Approach Delay		9.1		19.5		33.8		18.7	
Approach LOS		A		B		C		B	
Queue Length 50th (ft)	114	37	2	171		20	41	11	0
Queue Length 95th (ft)	m213	m89	11	330		47	79	31	74
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	625	1303	587	887		300	249	386	584
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	0.62	0.17	0.01	0.55		0.14	0.31	0.06	0.60

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 5 (6%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 9: US 17 & E Hinson Ave

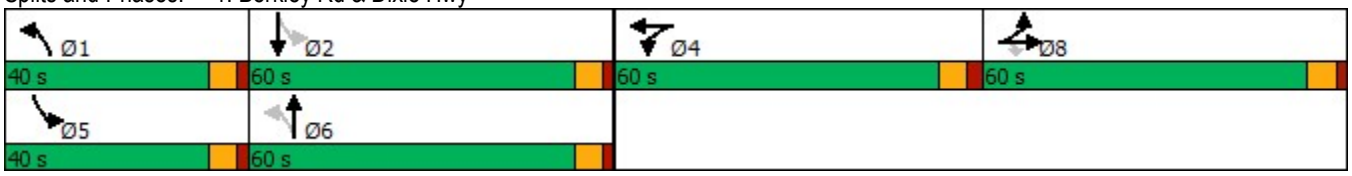


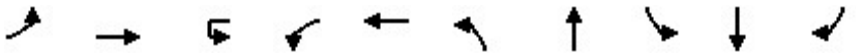


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	203	133	215	73	109	255	607	53	438
Future Volume (vph)	203	133	215	73	109	255	607	53	438
Lane Group Flow (vph)	179	187	234	79	166	277	764	58	566
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	60.0	60.0	60.0	60.0	60.0	40.0	60.0	40.0	60.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	18.2%	27.3%	18.2%	27.3%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	21.2	21.2	21.2	17.8	17.8	54.0	41.6	36.9	27.5
Actuated g/C Ratio	0.19	0.19	0.19	0.16	0.16	0.47	0.36	0.32	0.24
v/c Ratio	0.57	0.58	0.49	0.30	0.58	0.66	0.61	0.20	0.68
Control Delay	53.1	53.1	9.5	51.1	54.4	28.4	34.1	21.9	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	53.1	9.5	51.1	54.4	28.4	34.1	21.9	45.2
LOS	D	D	A	D	D	C	C	C	D
Approach Delay		36.1			53.4		32.6		43.1
Approach LOS		D			D		C		D
Queue Length 50th (ft)	124	130	0	51	106	121	242	22	191
Queue Length 95th (ft)	255	264	75	123	225	238	395	58	332
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	831	859	879	815	879	599	1702	634	1674
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.22	0.27	0.10	0.19	0.46	0.45	0.09	0.34

Intersection Summary			
Cycle Length: 220			
Actuated Cycle Length: 114.3			
Natural Cycle: 180			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 38.0		Intersection LOS: D	
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Berkley Rd & Dixie Hwy



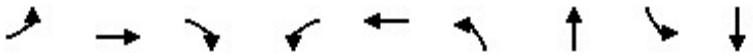


Lane Group	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Future Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Lane Group Flow (vph)	167	1422	0	48	1431	116	241	131	135	106
Turn Type	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	5	2	4	4	3	3	
Permitted Phases	6		2	2						3
Detector Phase	1	6	5	5	2	4	4	3	3	3
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	38.6	12.6	12.6	37.6	48.6	48.6	50.3	50.3	50.3
Total Split (s)	20.0	53.0	15.0	15.0	48.0	40.0	40.0	22.0	22.0	22.0
Total Split (%)	15.4%	40.8%	11.5%	11.5%	36.9%	30.8%	30.8%	16.9%	16.9%	16.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?										
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	68.5	57.8		56.8	49.7	24.9	24.9	14.8	14.8	14.8
Actuated g/C Ratio	0.53	0.44		0.44	0.38	0.19	0.19	0.11	0.11	0.11
v/c Ratio	0.73	0.62		0.31	0.76	0.35	0.70	0.69	0.70	0.33
Control Delay	46.0	31.3		23.2	39.5	46.8	57.8	74.4	74.3	4.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	31.3		23.2	39.5	46.8	57.8	74.4	74.3	4.4
LOS	D	C		C	D	D	E	E	E	A
Approach Delay		32.9			39.0		54.2		54.5	
Approach LOS		C			D		D		D	
Queue Length 50th (ft)	84	350		19	391	85	184	112	115	0
Queue Length 95th (ft)	#206	452		46	#522	133	257	#195	#201	14
Internal Link Dist (ft)		1129			1072		1025		971	
Turn Bay Length (ft)	120			80		300		150		155
Base Capacity (vph)	241	2290		164	1876	450	457	201	206	328
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.62		0.29	0.76	0.26	0.53	0.65	0.66	0.32

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 104 (80%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 155	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 39.4	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	758	316	117	591	398	667	216	650
Future Volume (vph)	156	758	316	117	591	398	667	216	650
Lane Group Flow (vph)	163	790	329	122	809	373	779	202	782
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	25.0	65.0	65.0	20.0	60.0	65.0	65.0	55.0	55.0
Total Split (%)	12.2%	31.7%	31.7%	9.8%	29.3%	31.7%	31.7%	26.8%	26.8%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	74.9	56.5	117.2	65.6	51.7	54.3	54.3	47.6	47.6
Actuated g/C Ratio	0.37	0.28	0.59	0.33	0.26	0.27	0.27	0.24	0.24
v/c Ratio	0.83	0.83	0.34	0.67	0.92	0.85	0.88	0.53	1.01
Control Delay	83.9	76.0	17.3	60.7	86.4	88.1	81.7	73.4	108.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.9	76.0	17.3	60.7	86.4	88.1	81.7	73.4	108.6
LOS	F	E	B	E	F	F	F	E	F
Approach Delay		62.0			83.0		83.8		101.4
Approach LOS		E			F		F		F
Queue Length 50th (ft)	164	528	171	110	552	525	552	267	~620
Queue Length 95th (ft)	#300	616	240	165	#664	#707	644	374	#769
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	201	992	978	184	914	460	933	383	771
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.80	0.34	0.66	0.89	0.81	0.83	0.53	1.01

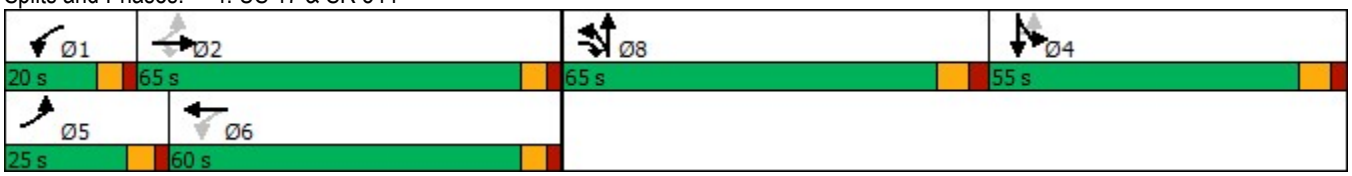
Intersection Summary	
Cycle Length: 205	
Actuated Cycle Length: 200	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 81.2	Intersection LOS: F
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544

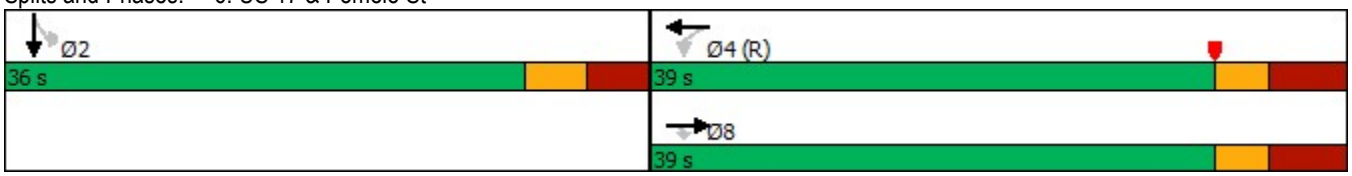


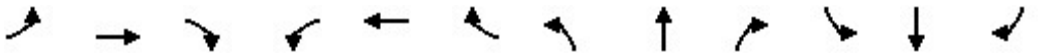
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	92	768	9	543	824
Future Volume (vph)	92	768	9	543	824
Lane Group Flow (vph)	100	835	0	600	970
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	39.0	39.0	39.0	39.0	36.0
Total Split (%)	52.0%	52.0%	52.0%	52.0%	48.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	Min
Act Effct Green (s)	36.8	36.8		36.8	23.7
Actuated g/C Ratio	0.49	0.49		0.49	0.32
v/c Ratio	0.15	1.03		0.68	0.63
Control Delay	12.9	60.1		21.1	23.0
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	12.9	60.1		21.1	23.0
LOS	B	E		C	C
Approach Delay	55.1			21.1	23.0
Approach LOS	E			C	C
Queue Length 50th (ft)	24	~379		200	137
Queue Length 95th (ft)	59	#678		#407	158
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	652	814		885	1884
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.15	1.03		0.68	0.51

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 4 (5%), Referenced to phase 4:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 112.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St



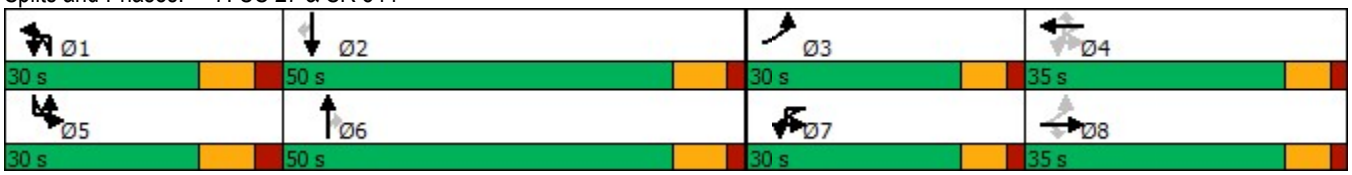


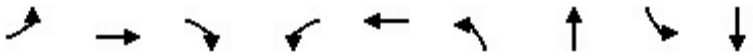
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Future Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Lane Group Flow (vph)	519	211	126	104	172	102	159	1319	120	133	1347	561
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4			6			2
Detector Phase	3	8	8	7	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0	41.0
Total Split (s)	30.0	35.0	35.0	30.0	35.0	35.0	30.0	50.0	50.0	30.0	50.0	50.0
Total Split (%)	20.7%	24.1%	24.1%	20.7%	24.1%	24.1%	20.7%	34.5%	34.5%	20.7%	34.5%	34.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	44.2	26.4	26.4	28.1	17.2	17.2	16.2	42.8	42.8	15.8	42.4	42.4
Actuated g/C Ratio	0.35	0.21	0.21	0.22	0.14	0.14	0.13	0.34	0.34	0.12	0.33	0.33
v/c Ratio	0.70	0.57	0.29	0.35	0.69	0.32	0.72	0.81	0.19	0.70	0.84	0.64
Control Delay	37.4	52.5	4.7	33.1	68.2	3.6	72.5	44.4	3.3	74.6	46.2	6.8
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	37.4	52.5	4.7	33.1	68.2	3.6	72.5	44.4	3.3	74.6	46.2	6.8
LOS	D	D	A	C	E	A	E	D	A	E	D	A
Approach Delay		36.3			41.1			44.1			37.2	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	169	157	0	59	138	0	128	366	0	107	380	0
Queue Length 95th (ft)	228	255	29	106	226	8	220	#519	27	190	#543	101
Internal Link Dist (ft)		1032			1401			1080			1389	
Turn Bay Length (ft)	525		580	600		390	800		860	790		880
Base Capacity (vph)	800	417	465	467	408	427	291	1636	622	255	1603	872
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	0.65	0.51	0.27	0.22	0.42	0.24	0.55	0.81	0.19	0.52	0.84	0.64

Intersection Summary		
Cycle Length: 145		
Actuated Cycle Length: 126.9		
Natural Cycle: 135		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.84		
Intersection Signal Delay: 39.6	Intersection LOS: D	
Intersection Capacity Utilization 82.0%	ICU Level of Service D	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544



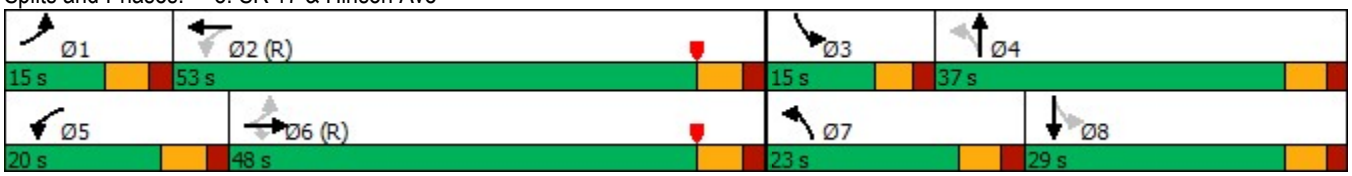


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	571	128	164	515	169	152	92	260
Future Volume (vph)	32	571	128	164	515	169	152	92	260
Lane Group Flow (vph)	33	583	131	167	539	172	347	94	319
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	15.0	48.0	48.0	20.0	53.0	23.0	37.0	15.0	29.0
Total Split (%)	12.5%	40.0%	40.0%	16.7%	44.2%	19.2%	30.8%	12.5%	24.2%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	50.9	44.1	44.1	61.7	53.8	45.0	32.1	36.0	26.9
Actuated g/C Ratio	0.42	0.37	0.37	0.51	0.45	0.38	0.27	0.30	0.22
v/c Ratio	0.11	0.87	0.19	0.65	0.67	0.58	0.72	0.34	0.80
Control Delay	16.0	50.9	1.8	33.8	28.6	33.5	43.8	28.1	59.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	50.9	1.8	33.8	28.6	33.5	43.8	28.1	59.3
LOS	B	D	A	C	C	C	D	C	E
Approach Delay		40.7			29.8		40.4		52.2
Approach LOS		D			C		D		D
Queue Length 50th (ft)	12	417	0	48	353	90	213	47	230
Queue Length 95th (ft)	29	#649	14	140	436	145	327	84	#414
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	321	671	675	285	808	344	483	288	401
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.87	0.19	0.59	0.67	0.50	0.72	0.33	0.80

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 29 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.4	Intersection LOS: D
Intersection Capacity Utilization 85.3%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: SR 17 & Hinson Ave

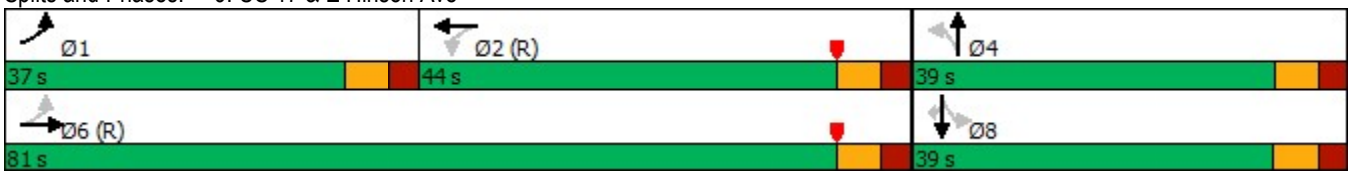


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	354	346	4	272	33	43	130	94	365
Future Volume (vph)	354	346	4	272	33	43	130	94	365
Lane Group Flow (vph)	369	369	4	398	0	87	135	98	380
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	37.0	81.0	44.0	44.0	39.0	39.0	39.0	39.0	39.0
Total Split (%)	30.8%	67.5%	36.7%	36.7%	32.5%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	88.0	88.0	65.7	65.7		18.7	18.6	18.6	18.6
Actuated g/C Ratio	0.73	0.73	0.55	0.55		0.16	0.16	0.16	0.16
v/c Ratio	0.55	0.28	0.01	0.42		0.39	0.68	0.33	0.68
Control Delay	9.3	7.1	19.0	19.7		46.4	63.2	46.2	10.8
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	9.3	7.1	19.0	19.7		46.4	63.2	46.2	10.8
LOS	A	A	B	B		D	E	D	B
Approach Delay		8.2		19.7		46.4		28.0	
Approach LOS		A		B		D		C	
Queue Length 50th (ft)	131	123	1	160		58	100	69	0
Queue Length 95th (ft)	m242	m225	10	334		101	156	111	84
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	787	1341	450	952		385	348	511	687
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	0.47	0.28	0.01	0.42		0.23	0.39	0.19	0.55

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 5 (4%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

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

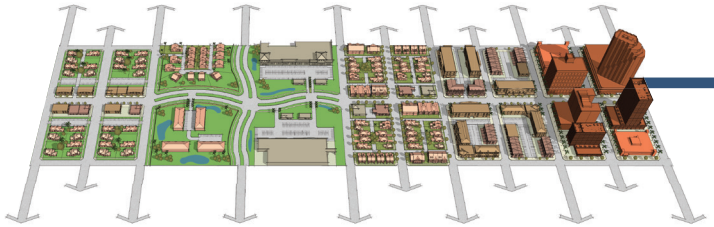
Splits and Phases: 9: US 17 & E Hinson Ave



APPENDIX E

Pedestrian and Bicycle Level of Traffic Stress Flowcharts (FDOT 2023 Q/LOS Handbook)

Appendix C: Florida's Pedestrian and Bicycle Level of Traffic Stress Flow Charts



Pedestrian Level of Traffic Stress Flow Chart

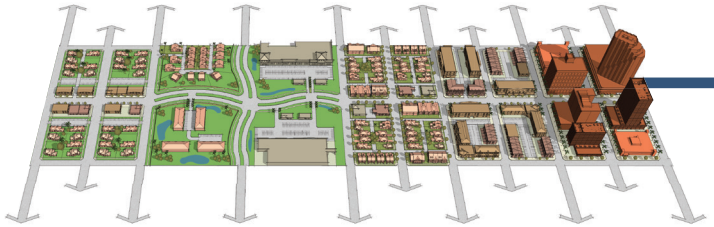
C2T, C3C, C3R, C4, C5, & C6

Is there a continuous sidewalk present?

- No → **LTS 4**
- Yes → **What is the posted speed?**
  - 25 mph → **Is there a separation?**
    - Yes → **LTS 1**
    - No → **LTS 2**
  - 30 to 35 mph → **Is there a separation?**
    - Yes → **Does the separation include vertical separation?**
      - Yes → **LTS 1**
      - No → **LTS 2**
    - No → **LTS 3**
  - 40 mph or greater → **Is there a separation?**
    - Yes → **Does the separation include vertical separation?**
      - Yes → **LTS 2**
      - No → **LTS 3**
    - No → **LTS 4**

Notes:
1) This chart does not constitute a standard and should be used only for general planning applications. The chart should not be used for corridor or intersection design, where more refined techniques exist.
2) This analysis is conducted for each side of the road and the worst side PLTS is applied for each segment.
3) If the sidewalk width is less than or equal to 5 feet, the PLTS deteriorates by 1.
4) Separation is defined by space between the outside vehicular travel lane and sidewalk and can include bicycle lanes, unmarked shoulders, street furniture, vertical separation, landscaping, or utility strips. Vertical separation in the separation includes tubular markers, islands, on-street parking, rigid barriers, and landscaping.
5) Sidewalk space over 6 feet can be evaluated as part of the separation.

Low Stress Tolerance → High Stress Tolerance



Bicycle Level of Traffic Stress Flow Chart to use When Bicycle Facility is Present

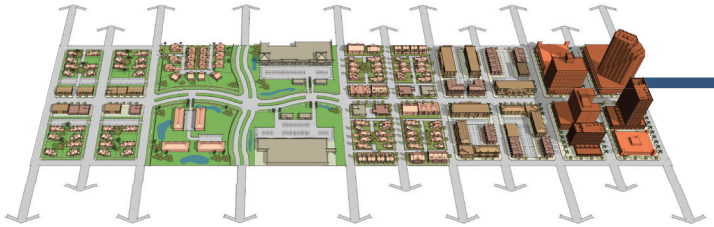
C2T, C3C, C3R, C4, C5, & C6

What kind of bicycle facility is present?

- Separated Bicycle Lane, Shared Use Path, or Urban Side Path → **LTS 1**
- Bicycle Lane, Marked Shoulder, or Paved Shoulder → **Is the posted speed 40 mph or more?**
  - Yes → **LTS 4**
  - No → **Is the AADT less than or equal to 7,000?**
    - Yes → **LTS 1**
    - No → **Is the posted speed 35 mph?**
      - Yes → **Is there a buffered bicycle lane?**
        - Yes → **LTS 2**
        - No → **LTS 3**
      - No → **Is the bicycle facility next to on-street parking?**
        - Yes → **Width of the bicycle lane and separation**
          - Greater than or equal to 7’ → **LTS 1**
          - 5’ or 6’ → **LTS 2**
          - 4’ → **LTS 3**
        - No → **Width of the bicycle lane**
          - Greater than or equal to 6’ → **LTS 1**
          - 5’ → **LTS 2**
          - 4’ → **LTS 3**
- Sharrow or None → **Use bicycle level of traffic stress assessment for when bicycle facility is not present**

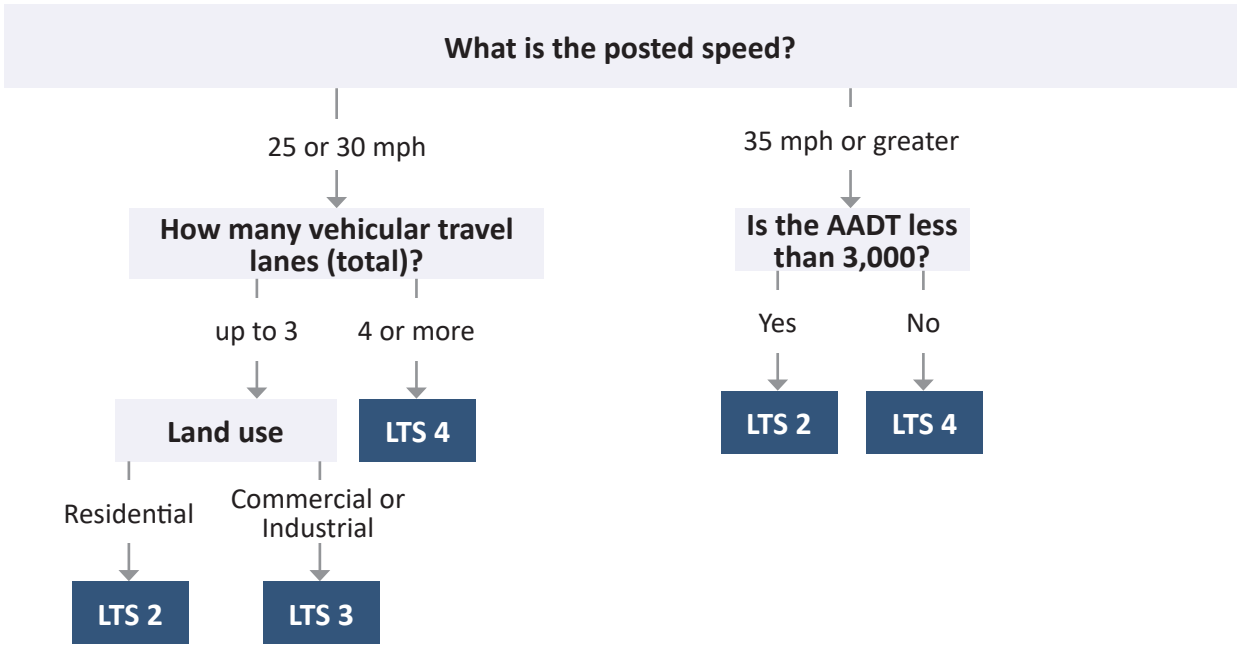
Notes:
1) This chart does not constitute a standard and should be used only for general planning applications. The chart should not be used for corridor or intersection design, where more refined techniques exist.
2) If there is both a separated bicycle lane, shared use path or urban side path and a bicycle lane, marked shoulder, or paved shoulder, evaluate the facility as having a shared use path

Low Stress Tolerance → High Stress Tolerance



Bicycle Level of Traffic Stress Flow Chart to use When No Bicycle Facility is Present or When There are Sharrows Present

C2T, C3C, C3R, C4, C5, & C6



Notes:
1) This chart does not constitute a standard and should be used only for general planning applications. The chart should not be used for corridor or intersection design, where more refined techniques exist.

APPENDIX F

Old Dixie Trail Bicycle/Pedestrian

Safety Technical Memorandum

Old Dixie Trail Project Development and Environment Study

Bicycle/Pedestrian Safety Technical Memorandum

(DRAFT)

October 2022

Project Limits:
Auburndale Trailhead on the Auburndale TECO Trail and
Haines City Trailhead on the Haines City Trail
Polk County, Florida

Financial Project ID: 435391-1-22-01

Prepared for:

Florida Department of Transportation
District One
801 N. Broadway Avenue
Bartow, Florida 33830

Prepared by:

HNTB Corporation
201 N. Franklin Street
Suite 1200
Tampa, FL 33602

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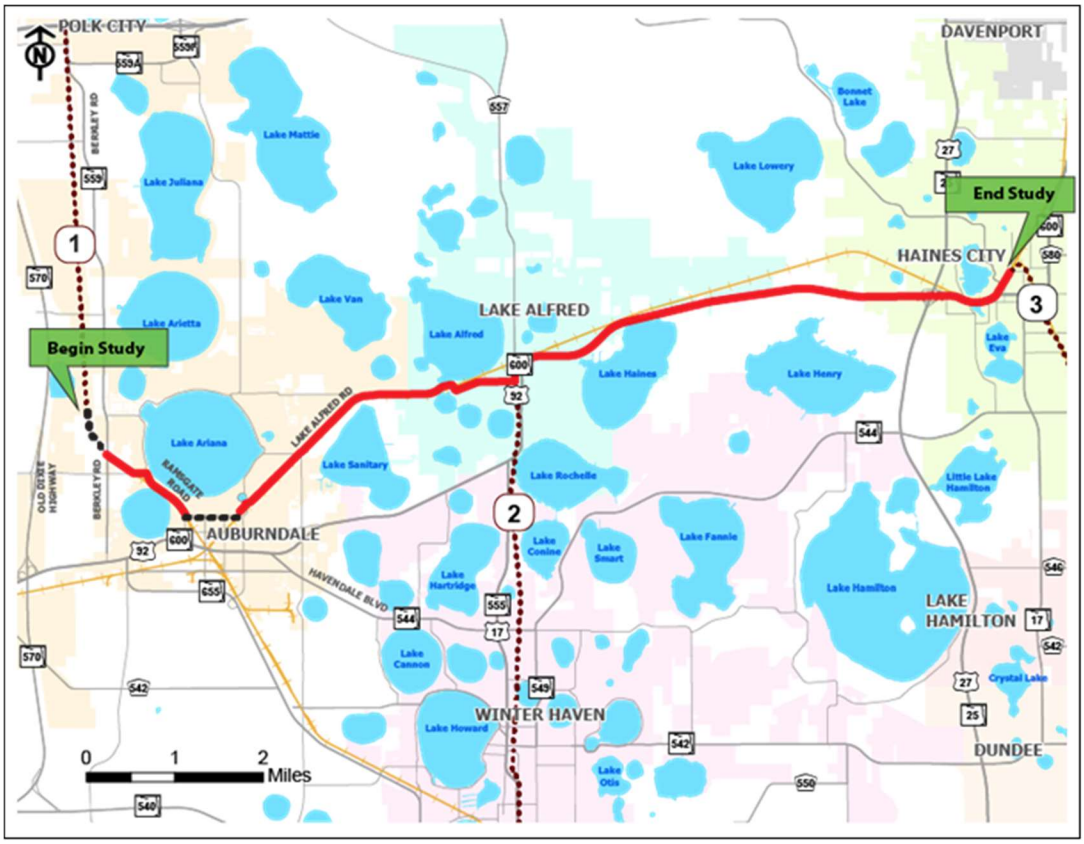
1.0 INTRODUCTION

As part of the Florida Department of Transportation's (FDOT) commitment to providing multimodal facilities and connectivity throughout the state, they have embarked on a two-phase process to determine feasibility for a multi-use trail from Auburndale to Haines City. Phase 1 of the project is a Feasibility Study in which existing conditions data were collected and analyzed for the project study area in an effort to identify end-to-end trail alternatives that best meet the project's goals and objectives of providing regional connectivity, contributing to safe multimodal access to community and recreational destinations, enhancing quality of life, and fostering economic development in the area. Phase 2 of the project is the Project Development and Environment (PD&E) Study in which the trail alignments identified in Phase 1 will be further analyzed to select a preferred alternative for the multi-use trail connecting the Auburndale TECO trailhead in Auburndale to the Haines City trailhead in Haines City.

1.1 Project Description

The purpose of this technical memorandum is to serve as an abbreviated safety study to determine if improvements can be made to reduce the quantity and severity of bicycle/pedestrian collisions occurring along the road within the limits of the planned Old Dixie Trail in Polk County, Florida. The trail is proposed to be 12 feet wide, but will narrow to 8' or 10' in some areas. The path of the trail is shown below in **Figure 1**.

Figure 1: Trail Map



2.0 QUALITATIVE ASSESSMENT

2.1 Crash Data

Bicycle/pedestrian only crash data was taken from both CAR on-line and SignalFour Analytics during a 5-year period from 2015 to 2019. For locations where the trail will run along the state highway system (SHS), data was pulled from both CAR on-line and SignalFour Analytics. For locations where the trail will not run along the SHS, data was only pulled from SignalFour Analytics. The collision diagrams and summaries are found in **Appendix A, Crash Data**.

2.2 Crash Analysis

A total of 18 bicycle and pedestrian collisions were reported along the entire trail. Six (33%) of the collisions were involving a bicycle and 12 (67%) of the collisions were involving a pedestrian. The severity of the collisions was as follows: 1 (5.6%) fatal collision, 16 (88.8%) injury collisions, and 1 (5.6%) property damage collision. Of the total collisions, 11 (61%) were during nighttime and 2 (11%) was during wet weather.

The following observations were reached based on a desktop-level evaluation of the crash history and existing conditions.

- The crash reports for ten (56%) of the collisions stated that the bicyclist/pedestrian was riding/walking on the paved or unpaved shoulder. The construction of the Old Dixie Trail will allow bicyclists/pedestrians a safe space to ride/walk after completion.
- A bicycle collision occurred on the south side of the unsignalized intersection of Pilaklakaha Avenue at McKean Street in 2019 (post-construction of Pilaklakaha Avenue road diet and trail). **Consider exchanging the existing pedestrian warning sign (W11-2) with a bicycle/pedestrian warning sign (W11-15) and supplemental trail x-ing plaque (W11-15P) to warn motorists that there are both bicyclists and pedestrians crossing and there is a trail with more than typical bicycle/pedestrian traffic crossing at this location.**
- A pedestrian collision occurred on the north side of the unsignalized intersection of Stadium Road at Hampton Street. The construction of the Old Dixie Trail would mitigate similar crashes because the new trail is proposed to be closer to the intersection, there will be crossing pavement markings, and proper curb ramps.
- A student pedestrian was struck crossing Stadium Road, east of Bennett Street, not using the existing marked crosswalk. The collision occurred at 6:40 am, with the bell schedule starting at 7:00 am. The existing school zone signs are spaced for the criteria distance upstream of the existing crosswalk. **Consider relocating the existing westbound S5-1 sign approximately 150' further upstream to alert motorists in advance of where this student crossed the road. Relocate the existing westbound S1-1 sign as well to be 100' in advance of the new location of the S5-1 sign.** The existing midblock crosswalk markings are a standard crosswalk style. **Consider special emphasis markings at the existing marked midblock crosswalk per the FDOT TEM, Figure 5.2-13.** The existing school zone does not have SCHOOL pavement messages in either direction.

Consider adding SCHOOL pavement messages to the school zone per the FDOT Speed Zoning Manual, Section 15.5.

- A pedestrian was struck on the southern crosswalk at the intersection of US 17/Shinn Boulevard at East Pomelo Street, which will be part of the proposed path of the trail. **Consider a leading pedestrian interval when the southern crosswalk pushbuttons are activated to give pedestrians an opportunity to get into the crosswalk and be visible to motorists making an eastbound approach right turn. Consider a "turning vehicles yield to peds" (R10-15) blank-out sign on the eastbound mast arm when the pedestrian signal is activated for the southern crosswalk to alert motorists of pedestrians. Consider special emphasis markings throughout the entire intersection to increase crosswalk visibility.**
- A bicyclist collision occurred within the eastern crosswalk of US 17/East Hinson Avenue at North 6th Street. The crash report stated that the bicyclist was at fault from crossing during a red light. **Consider programming the signal timing parameters to give pedestrians priority when the pushbutton is activated and decrease crossing wait times. Consider replacing the pedestrian push buttons with two-tone audible and visual confirmation buttons to let pedestrians know that the actuation has been made. Separate the pedestrian signals by having separate standalone poles for all curb ramps at the intersection and replace with new pedestrian countdown signals. Consider special emphasis markings throughout the entire intersection to increase crosswalk visibility. Consider a leading pedestrian interval when the eastern crosswalk pushbuttons are activated to give pedestrians an opportunity to a get into the crosswalk and be visible to motorists in anticipation of the trail.**

2.3 Best Practices

In addition to the safety recommendations, correctible engineering best practice items and general observations from existing conditions with no crash history were identified. The following is a list of these items.

- Berkley Road at Deen Blvd: If a pedestrian bridge is not being proposed at this location, a signal warrant should be considered at this intersection to give trail users an opportunity to safely cross within this intersection. If a signal is not warranted, a pedestrian hybrid beacon (PHB) should be evaluated if it is warranted. The closest traffic count data available on the major approach, Berkey Road, was collected approximately 1300' south of the intersection located just north of Old Dixie Highway. The count showed an afternoon peak volume of 1428 vehicles/hour in 2019. Assuming the number of trail users will be more than 20 per hour, this would meet the criteria for a PHB per MUTCD, Figure 4F-2. A rectangular rapid flashing beacon (RRFB) would not meet criteria per TEM 5.2.5.2 since Berkley Road is above 45 mph.

- Old Dixie Highway at Lake Ariana Boulevard: Consider constructing a concrete island in existing gore area to have the trail crossing as a two-stage crossing.

- Ramsgate Road at Pearl Street: There is a white painted gore on the north side of this intersection. The gore should be yellow since the two lanes are opposing directions of traffic. Additionally, the

trail will be crossing Pilaklakha Ave on the east end of this intersection. Consider an RRFB at this midblock crossing and a southbound bicycle/pedestrian warning sign (W11-15) ahead of the crossing because of the curvature of the road.

- Stadium Road at Lake Alfred Road: Consider an RRFB at this midblock crossing with special emphasis markings within the crosswalk.
- West Pierce Street, west of Lake Cummings Boulevard: Consider an RRFB at this midblock crossing with special emphasis markings within the crosswalk.
- Lake Shore Way at E Polmelo St: Consider special emphasis markings throughout the entire intersection. Consider "turning vehicles yield to peds" (R10-15) signs for the northbound and westbound approaches. Consider a leading pedestrian interval for the eastern crosswalk.
- US 17 at US 27 on/off ramps: Consider bicycle/pedestrian warning signs (W11-15), with supplemental W16-7P signs, at the crosswalk locations and mark the crosswalks with a special emphasis markings.

3.0 CONCLUSION

A construction cost estimate was calculated as part of this technical memorandum using the twelve-month FDOT Statewide Moving Averages. Overall, the cost estimate for the proposed improvements totaled to $125,320.77 or $14,805.64 annually. A net present value analysis and benefit-cost analysis were also calculated. The results from the analyses of the overall improvements are as follows.

- Number of crashes potentially reduced: total 4
- Annual Monetary Value of Benefits: $403,561.44
- Annual Monetary Value of Cost: $108,533.74
- Benefit-cost ratio: 3.32
- Net present Value: $295,027.70

Based on the benefit-cost ratio and net present value, these improvements are expected to have a beneficial impact along this corridor. The **Construction Cost Estimate, Benefit-Cost Analysis, and Net Present Value Analysis** are found in **Appendices B through D**.

APPENDICES

Appendix A:
Crash Data

COLLISION SUMMARY

Section: 1
Location: Ramsgate Rd from Denton Ave to US 92
Study Period: 1/1/2015 to 12/31/2019
No. of Years: 5

State Route:
M.P.: -
County: Polk

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Crash Report Number	Comments
1	11/26/2015	Thu.	18:18	Pedestrian		x		Day	Dry	FTYRW	85620241	
2	2/16/2019	Sat.	17:05	Bicycle			x	Day	Dry	FTYRW	85895281	
3	9/11/2019	Wed.	0:11	Bicycle		x		Night	Dry	Other	85895623	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Sign	Overturned	Collision w/ Pole	Hit Animal	Run Off Road	Other
3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
%	0	67	33	0	0	0	0	0	0	0	0	0	0	0	0

One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Failed to Maintain Vehicle	Improper Load	No Improper Driving	Other
0	3	2	1	3	0	0	2	0	0	0	0	0	0	0	1
0	100	67	33	100	0	0	67	0	0	0	0	0	0	0	33

Notice:

Please be aware that the records you requested contain information compiled and collected for the purpose of obtaining Federal-aid funding for safety improvement projects. Under Federal law (23 U.S.C. § 409), these records are not subject to discovery or admissible into evidence in any court proceeding and may not be considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in the records.

COLLISION DIAGRAM

LOCATION RAMSGATE RD FROM DENTON AVE TO US 92

COUNTY POLK CITY AUBURNDALE

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 1

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	1	1	0	2
NIGHTTIME	0	1	0	1
TOTAL	1	2	0	3

COLLISION DIAGRAM

LOCATION RAMSGATE RD FROM DENTON AVE TO US 92

COUNTY POLK CITY AUBURNDALE

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 2

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	1	1	0	2
NIGHTTIME	0	1	0	1
TOTAL	1	2	0	3

COLLISION DIAGRAM

LOCATION: RAMSGATE RD FROM DENTON AVE TO US 92

COUNTY: POLK CITY: AUBURNDALE

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 3

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	1	1	0	2
NIGHTTIME	0	1	0	1
TOTAL	1	2	0	3

COLLISION SUMMARY

Section: 2
Location: Lake Alfred Rd from Pilaklakaha Ave to CR 555
Study Period: 1/1/2015 to 12/31/2019
No. of Years: 5

State Route:
M.P.: -
County: Polk

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Crash Report Number	Comments
1	2/28/2017	Tue.	6:20	Pedestrian		x		Night	Dry	FTYRW	85621093	
2	3/13/2017	Mon.	9:02	Bicycle		x		Day	Dry	No Improper Driving	85621123	
3	2/13/2018	Tue.	6:40	Pedestrian		x		Night	Dry	No Improper Driving	85621697	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Sign	Overturned	Collision w/ Pole	Hit Animal	Run Off Road	Other
3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
%	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0

One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Failed to Maintain Vehicle	Improper Load	No Improper Driving	Other
0	3	1	2	3	0	0	1	0	0	0	0	0	0	2	0
0	100	33	67	100	0	0	33	0	0	0	0	0	0	67	0

Notice:

Please be aware that the records you requested contain information compiled and collected for the purpose of obtaining Federal-aid funding for safety improvement projects. Under Federal law (23 U.S.C. § 409), these records are not subject to discovery or admissible into evidence in any court proceeding and may not be considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in the records.

COLLISION DIAGRAM

LOCATION LAKE ALFRED RD FROM PILAKLAKAHA AVE TO CR 555

COUNTY POLK CITY AUBURNDALE

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 1

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	1	0	1
NIGHTTIME	0	2	0	2
TOTAL	0	3	0	3

COLLISION DIAGRAM

LOCATION LAKE ALFRED RD FROM PILAKLAKAHA AVE TO CR 555

COUNTY POLK CITY AUBURNDALE

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 2

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	1	0	1
NIGHTTIME	0	2	0	2
TOTAL	0	3	0	3

COLLISION SUMMARY

Section: 9
Location: US 17/92 from Pierce St to Lily Ave
Study Period: 1/1/2015 to 12/31/2019
No. of Years: 5

State Route:
M.P.: -
County: Polk

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Crash Report Number	Comments
1	4/3/2015	Fri.	21:21	Pedestrian		x		Night	Dry	FTYRW	84065506	
2	10/2/2015	Fri.	21:05	Bicycle		x		Night	Wet	FTYRW	84065986	
3	7/25/2016	Mon.	8:46	Bicycle		x		Day	Dry	FTYRW	85833939	
4	7/4/2017	Tue.	23:15	Pedestrian		x		Night	Dry	Other	86939140	
5	9/26/2017	Tue.	5:03	Pedestrian		x		Night	Dry	Other	85834158	
6	2/8/2018	Thu.	22:49	Pedestrian		x		Night	Dry	Other	87666449	
7	12/22/2018	Sat.	2:10	Pedestrian	x			Night	Dry	FTYRW	88752930	
8	1/12/2019	Sat.	16:50	Bicycle		x		Day	Dry	FTYRW	87869181	
9	3/2/2019	Sat.	8:17	Pedestrian		x		Day	Dry	Careless Driving	85834411	
10	11/29/2019	Fri.	17:56	Pedestrian		x		Day	Dry	Improper Lane Change	89372323	
11	12/16/2019	Mon.	19:00	Pedestrian		x		Night	Dry	Improper Backing	89372347	
12	12/28/2019	Sat.	19:31	Pedestrian		x		Night	Wet	FTYRW	89094192	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Sign	Overturned	Collision w/ Pole	Hit Animal	Run Off Road	Other
12	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0
%	8	92	0	0	0	0	0	0	0	0	0	0	0	0	0
One Vehicle	**Ped/ Bike**	**Day**	**Night**	**Dry**	**Wet**	**Careless Driving**	**FTYRW**	**Improper Backing**	**DUI**	**Improper Lane Change**	**Disregarded Traffic Signal**	**Failed to Maintain Vehicle**	**Improper Load**	**No Improper Driving**	**Other**
0	12	4	8	10	2	1	6	1	0	1	0	0	0	0	3
0	100	33	67	83	17	8	50	8	0	8	0	0	0	0	25

Notice:

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COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 1

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 2

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 3

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 4

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 5

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 6

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 7

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

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COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 8

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY POLK CITY LAKE ALFRED

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 9

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY POLK CITY LAKE ALFRED

DATE RANGE 01/01/2015 TO 12/31/2019 PREPARED BY HNTB

SHEET 10

SYMBOLS

- OVERTURNED VEHICLE
- BACKING VEHICLE
- OUT OF CONTROL
- HEAD-ON COLLISION
- ANGLE COLLISION
- RIGHT TURN COLLISION
- COLLISION W/ PED.
- COLLISION W/ BIKE
- LEFT TURN COLLISION
- REAR-END COLLISION
- SIDE SWIPE
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

COLLISION DIAGRAM

LOCATION: US 17/92 FROM W PIERCE ST TO LILY AVE

COUNTY: POLK CITY: LAKE ALFRED

DATE RANGE: 01/01/2015 TO 12/31/2019 PREPARED BY: HNTB

SHEET 11

SYMBOLS

- OVERTURNED VEHICLE
- HEAD-ON COLLISION
- COLLISION W/ PED.
- REAR-END COLLISION
- BACKING VEHICLE
- ANGLE COLLISION
- COLLISION W/ BIKE
- SIDE SWIPE
- OUT OF CONTROL
- RIGHT TURN COLLISION
- LEFT TURN COLLISION
- PERSONAL INJURY
- FATALITY

CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	0	4	0	4
NIGHTTIME	0	7	1	8
TOTAL	0	11	1	12

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Appendix B:
Construction Cost Estimate

ENGINEER'S ESTIMATE
Old Dixie Trail Bicycle/Pedestrian Safety Improvements
Polk County, FL

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	8	$30.78	$246.24
0522 1	CONCRETE SIDEWALK AND DRIVEWAY, 4" THICK	SY	8	$57.53	$460.24
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	120	$15.41	$1,849.20
0632 7 2	SIGNAL CABLE- REPAIR/REPLACE/OTHER, FURNISH & INSTALL	LF	120	$8.10	$972.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	8	$1,936.29	$15,490.32
0646 1 40	ALUMINUM SIGNALS POLE, RELOCATE	EA	1	$1,509.12	$1,509.12
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	8	$826.32	$6,610.56
0665 1 12	PEDESTRIAN DETECTOR, FURNISH & INSTALL, ACCESSIBLE	EA	8	$2,393.04	$19,144.32
0671 2 40	TRAFFIC CONTROLLER, MODIFY	EA	2	$3,203.40	$6,406.80
0700 1 12	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF	AS	1	$1,526.08	$1,526.08
0700 1 50	SINGLE POST SIGN, RELOCATE	AS	1	$283.38	$283.38
0700 1 60	SINGLE POST SIGN, REMOVE	AS	1	$44.36	$44.36
0700 3502	SIGN PANEL, RELOCATE, 12-20 SF	EA	1	$484.25	$484.25
0700 11391	ELECTRONIC DISPLAY SIGN, FURNISH & INSTALL OVERHEAD MOUNT- AC POWERED, BLANK OUT SIGN, UP TO 12 SF	EA	1	$6,072.80	$6,072.80
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	860	$3.19	$2,743.40
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	100	$5.68	$568.00
0711 11160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	2	$162.96	$325.92
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24"	LF	720	$16.31	$11,743.20
0711 17 1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS: NON-CONFLICTING ONLY	SF	860	$1.58	$1,358.80
	COMPONENT SUB-TOTAL				$77,838.99
	PROJECT UNKNOWNS (15%)				$11,675.85
	SUB-TOTAL				$89,514.84
	MAINTENANCE OF TRAFFIC (10%)				$8,951.48
	SUB-TOTAL				$98,466.32
	MOBILIZATION (10%)				$8,951.48
	SUB-TOTAL				$107,417.81
	DESIGN (20%)				$17,902.97
	SUB-TOTAL				$125,320.77
	PROJECT GRAND TOTAL				**$125,320.77**

Appendix C:
Benefit-Cost Analysis

Roadway Design
Florida's Transportation Engineers

Rev. 02/2014

Benefit-Cost Analysis

District: **One** County: **16 - Polk** Date Prepared: 09/29/22

Location: **Old Dixie Trail Bicycle/Pedestrian Safety Improvements**

Section : **N/A** Beg. Milepost : **N/A** End Milepost :

Rdway Type: **ALL CRASH RATE CATEGORIES**

Control Element: **Other (describe in box below)**

Recommendations: Trail warning sign, special emphasis crosswalks, school zone adjustments/improvements, yield to peds sign, LPI, and pedestrian signal improvements.

ANNUAL COST OF IMPROVEMENTS

Type		Cost	Service Life	Capital Recovery Factor		Total
ROW			100	0.0408	$	-
P.E.C.E.I.	$	17,902.97	15	0.0899	$	1,609.48
Structure			75	0.0425	$	-
Roadway	$	974.94	20	0.0736	$	71.76
Drainage			20	0.0736	$	-
Signal	$	71,735.60	10	0.1233	$	8,845.00
Other	$	34,707.26	10	0.1233	$	4,279.41
Sub-Total	$	125,320.77			$	14,805.64
				Annual Cost =	$	14,805.64

Total number of crashes =	18
# of correctable crashes, PC =	4
# of years of crash data, YD =	5
PC/YD =	0.80
Crash reduction factor, CRF =	39.42%
CRF x (PC/YD) =	0.32
Cost per crash, CPC =	$155,695.00
Benefit =	$49,106

Primary crash reduction factor (%): 19
implement a leading pedestrian interval

Additional crash reduction factor: 18
Install High-Visibility Crosswalk

Additional crash reduction factor: 8.8
Pedestrain Countdown Signal

BENEFIT/COST RATIO

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$49{,}106.15}{\$14{,}805.64} = \mathbf{3.32}$$

Comments: Crash reduction factors are provided from the CMF Clearinghouse.

Prepared by: Ben Rodgers

Appendix D:
Net Present Value Analysis

Net Present Value Evaluation (Old Dixie Trail Bicycle/Pedestrian Safety Improvements)

Year	CRF x (PC/YD)	Cost per Crash	(P/A,I,y) Factor	Present Value
1	0.32	$155,695.00	0.96	$47,829.50
2	0.32	$155,695.00	0.92	$45,836.61
3	0.32	$155,695.00	0.89	$44,341.94
4	0.32	$155,695.00	0.85	$42,349.04
5	0.32	$155,695.00	0.82	$40,854.37
6	0.32	$155,695.00	0.79	$39,359.70
7	0.32	$155,695.00	0.76	$37,865.02
8	0.32	$155,695.00	0.73	$36,370.35
9	0.32	$155,695.00	0.70	$34,875.68
10	0.32	$155,695.00	0.68	$33,879.23

Total Present Value	
Benefit	$403,561.44
Cost	$108,533.74
Net Present Value	**$295,027.70**

APPENDIX G

Build Alternative Typical

Section Package

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

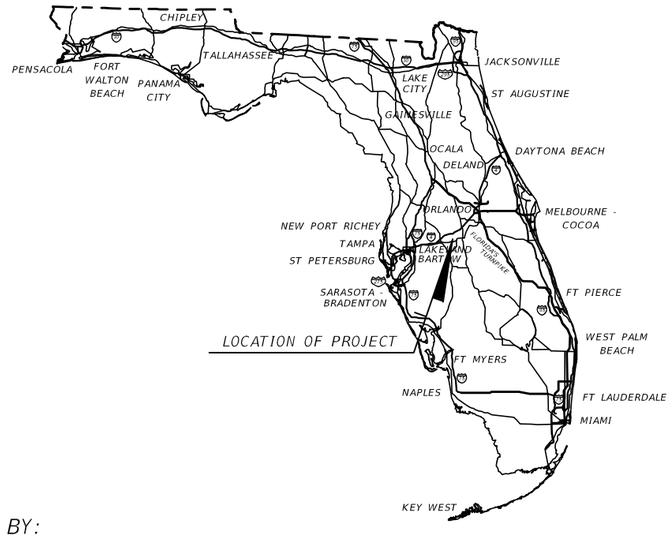
TYPICAL SECTION PACKAGE

FINANCIAL PROJECT ID 435391-1-22-01

POLK COUNTY (16020000, 16020102)

OLD DIXE TRAIL

AUBURNDALE TO HAINES CITY



FDOT DISTRICT DESIGN ENGINEER

CONCURRING WITH:
TYPICAL SECTION ELEMENTS
TARGET SPEED
DESIGN & POSTED SPEEDS

FDOT DISTRICT TRAFFIC OPERATIONS ENGINEER

CONCURRING WITH:
TARGET SPEED
DESIGN & POSTED SPEEDS

FDOT DISTRICT INTERMODAL SYSTEMS DEVELOPMENT MANAGER

CONCURRING WITH:
CONTEXT CLASSIFICATION
TARGET SPEED

FDOT DISTRICT STRUCTURES DESIGN ENGINEER

CONCURRING WITH:
TYPICAL SECTION ELEMENTS

FHWA TRANSPORTATION ENGINEER

CONCURRING WITH:
TYPICAL SECTION ELEMENTS

LOCAL TRANSPORTATION ENGINEER

CONCURRING WITH:
TYPICAL SECTION ELEMENTS

NOT USED

CONCURRING WITH:

NOT USED

CONCURRING WITH:

PROJECT LOCATION URL:	https://maps.app.goo.gl/1fLLjtD67fomtDin8
PROJECT LIMITS:	AUBURNDALE TO HAINES CITY
EXCEPTIONS:	NONE
BRIDGE LIMITS:	NONE
RAILROAD CROSSING:	CSX CROSSING 623063B

APPROVED BY:

NICOLAS ADOLFO LEON
LICENSE
No. 78538
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

HNTB CORPORATION
ONE TAMPA CITY CENTER
201 N FRANKLIN ST. SUITE 1200
TAMPA, FL. 33602
NICOLAS LEON, P.E. 78538

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INDEX OF SHEETS

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
(X) C3R : SUBURBAN RES.
( ) N/A : L.A. FACILITY
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
(X) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

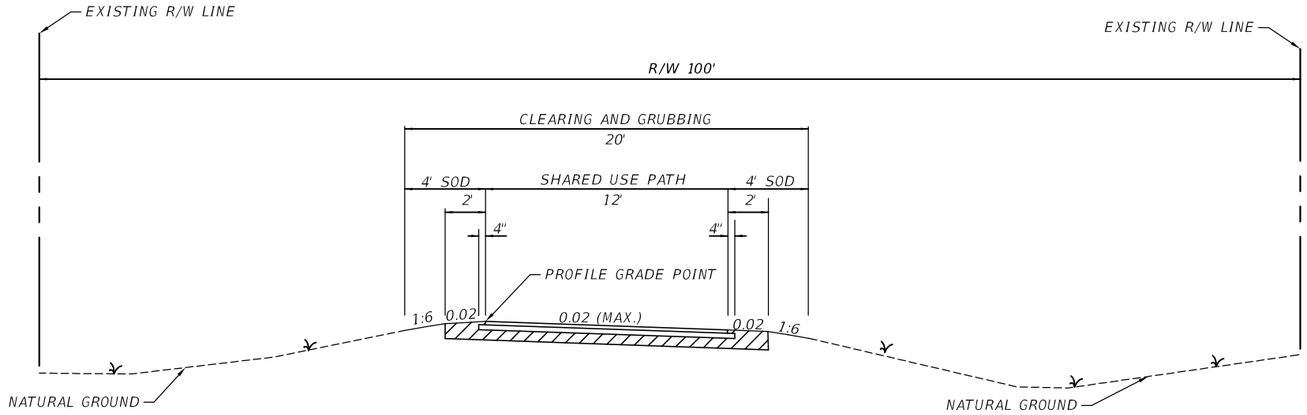
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 1



SEGMENT 1
FORMER CSX RAILROAD
BERKLEY RD. TO OLD DIXIE HWY.

TRAFFIC DATA

DESIGN SPEED = 18 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	2

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
(X) C3R : SUBURBAN RES.
( ) N/A : L.A. FACILITY
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
(X) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

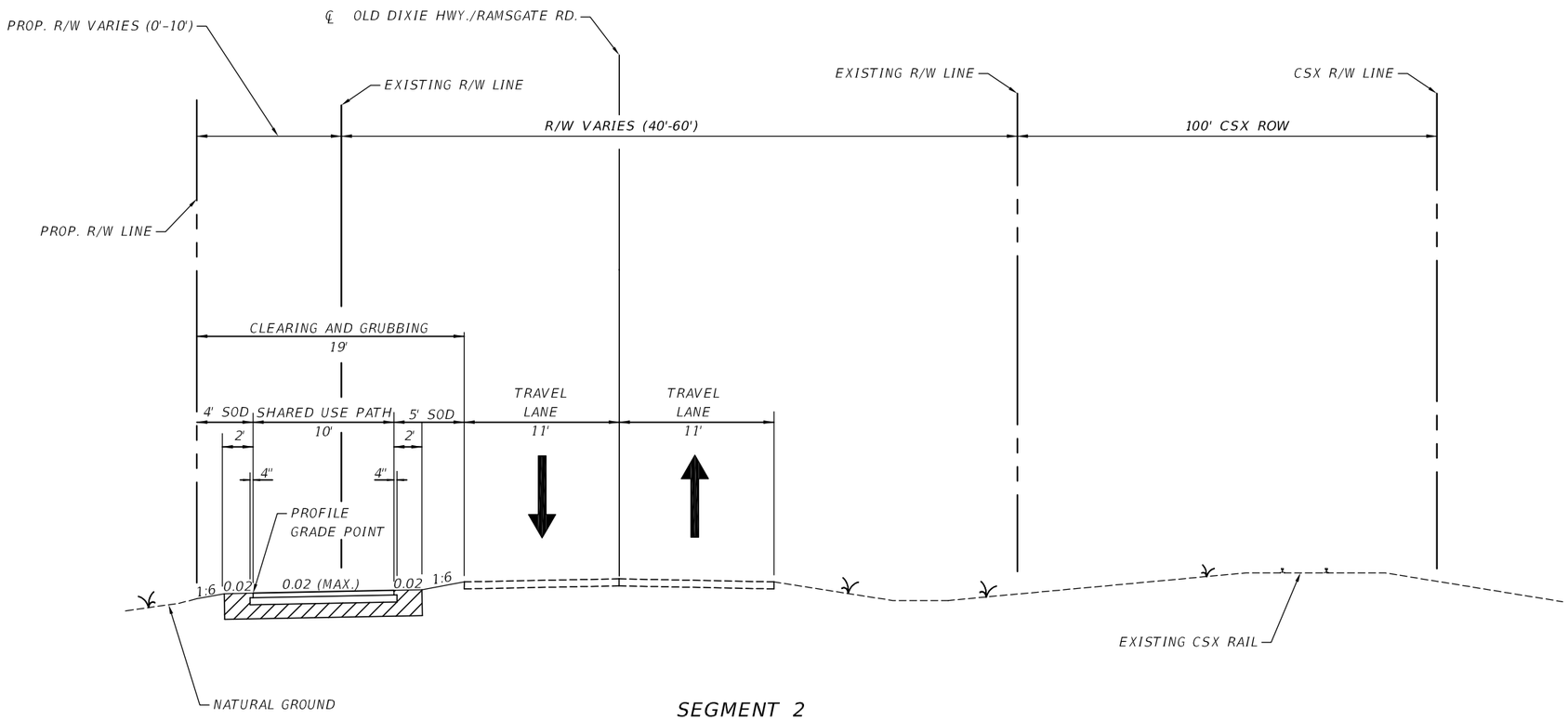
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
(X) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 2



SEGMENT 2
OLD DIXIE HIGHWAY
FORMER CSX RAILROAD TO RAMSGATE RD.

RAMSGATE ROAD
OLD DIXIE HWY. TO PILAKLAKAHA AVE.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 3800
ESTIMATED OPENING YEAR	= 2030	AADT = 5100
ESTIMATED DESIGN YEAR	= 2050	AADT = 7300

K = 9% D = 56% T = 5% (24 HOUR)
DESIGN HOUR T = 2.5%
TARGET SPEED = 40 MPH
DESIGN SPEED = 40 MPH
POSTED SPEED = 40 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	3

$DATE$ $TIME$

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	(X)	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	(X)	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
( )	STRATEGIC INTERMODAL SYSTEM
( )	STATE HIGHWAY SYSTEM
(X)	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

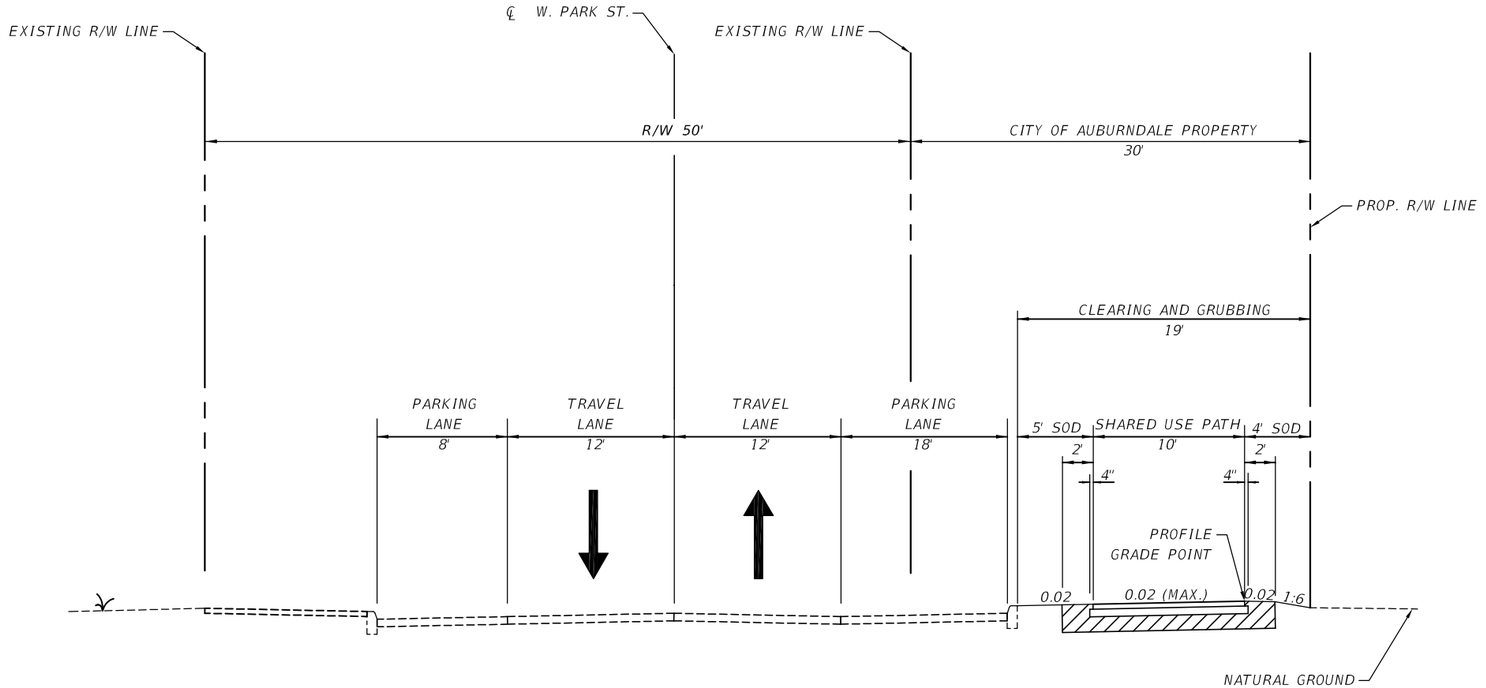
( )	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
(X)	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 3



SEGMENT 3
W. PARK STREET
PILAKLAKAHA AVE. TO MAIN ST.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 3700
ESTIMATED OPENING YEAR	= 2030	AADT = 5100
ESTIMATED DESIGN YEAR	= 2050	AADT = 7400

K = 9% D = 56% T = 5.3% (24 HOUR)
DESIGN HOUR T = 2.7%
TARGET SPEED = 25 MPH
DESIGN SPEED = 25 MPH
POSTED SPEED = 25 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	4

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
(X) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
( ) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
(X) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

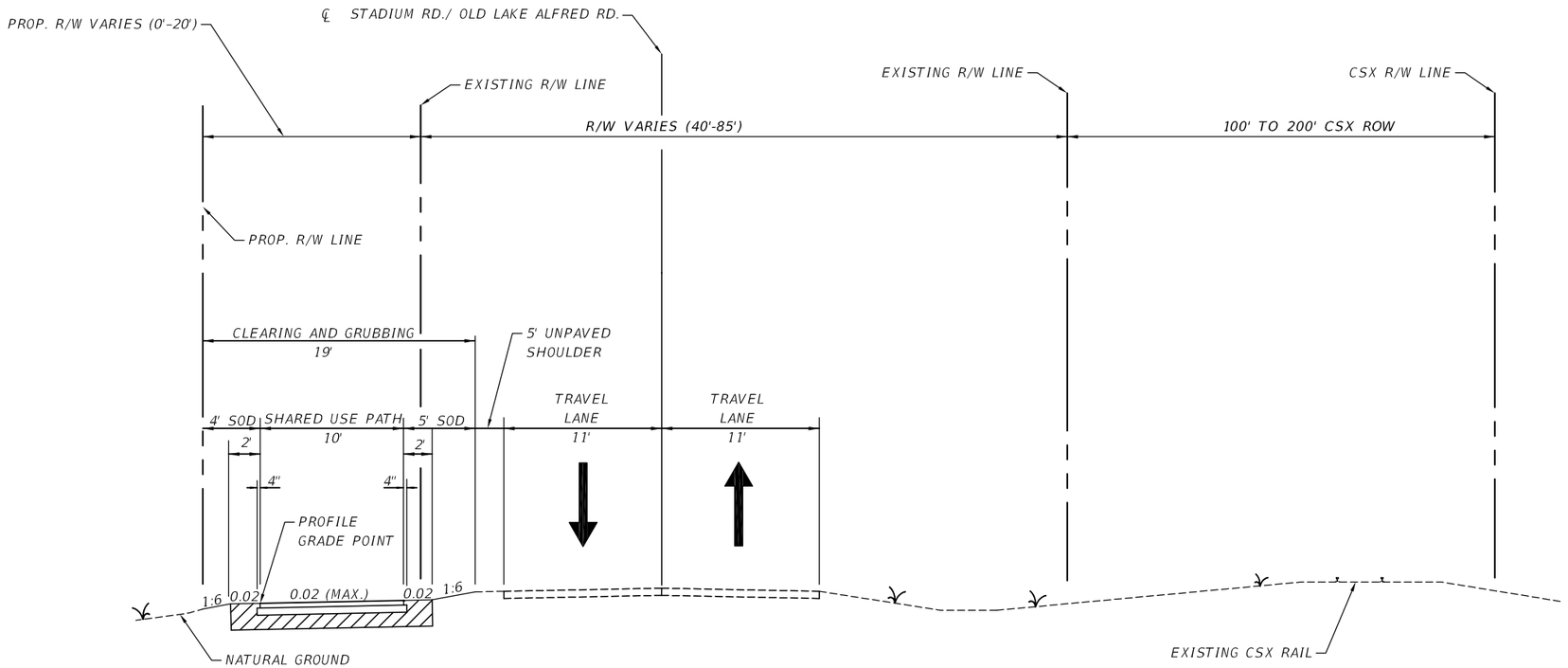
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
(X) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 4



SEGMENT 3 TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 3200
ESTIMATED OPENING YEAR = 2030 AADT = 4300
ESTIMATED DESIGN YEAR = 2050 AADT = 6200
K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 45 MPH
DESIGN SPEED = 45 MPH
POSTED SPEED = 45 MPH

SEGMENT 4 TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 4600
ESTIMATED OPENING YEAR = 2030 AADT = 6100
ESTIMATED DESIGN YEAR = 2050 AADT = 8900
K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 45 MPH
DESIGN SPEED = 45 MPH
POSTED SPEED = 45 MPH

SEGMENT 3
STADIUM ROAD
MAIN ST. TO OHIO ST.

SEGMENT 4
STADIUM ROAD/OLD LAKE ALFRED ROAD
OHIO ST. TO SOUTH OF CSX CROSSING

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	5

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
(X) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
( ) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
(X) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

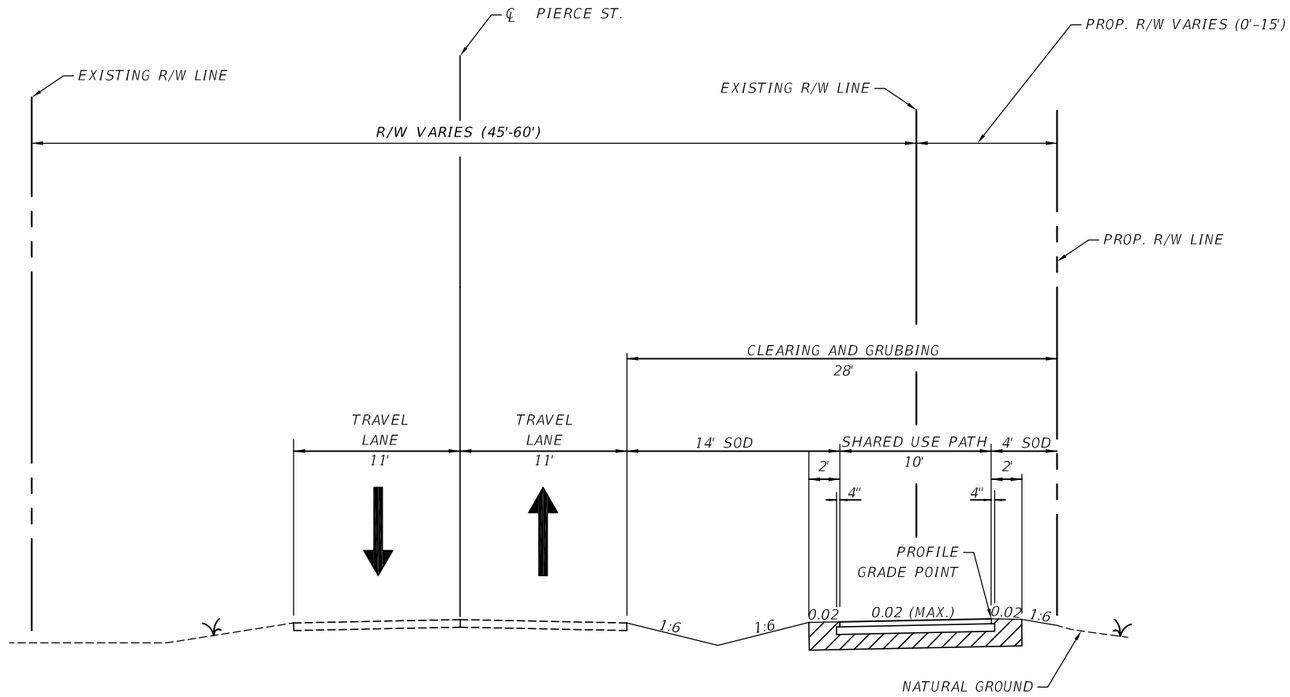
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
(X) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 5



SEGMENT 5
PIERCE STREET
SOUTH OF CSX CROSSING TO SHINN BLVD.

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 3700
ESTIMATED OPENING YEAR = 2030 AADT = 5100
ESTIMATED DESIGN YEAR = 2050 AADT = 7400
K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 30 MPH
DESIGN SPEED = 30 MPH
POSTED SPEED = 30 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	6

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	(X)	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

(X) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

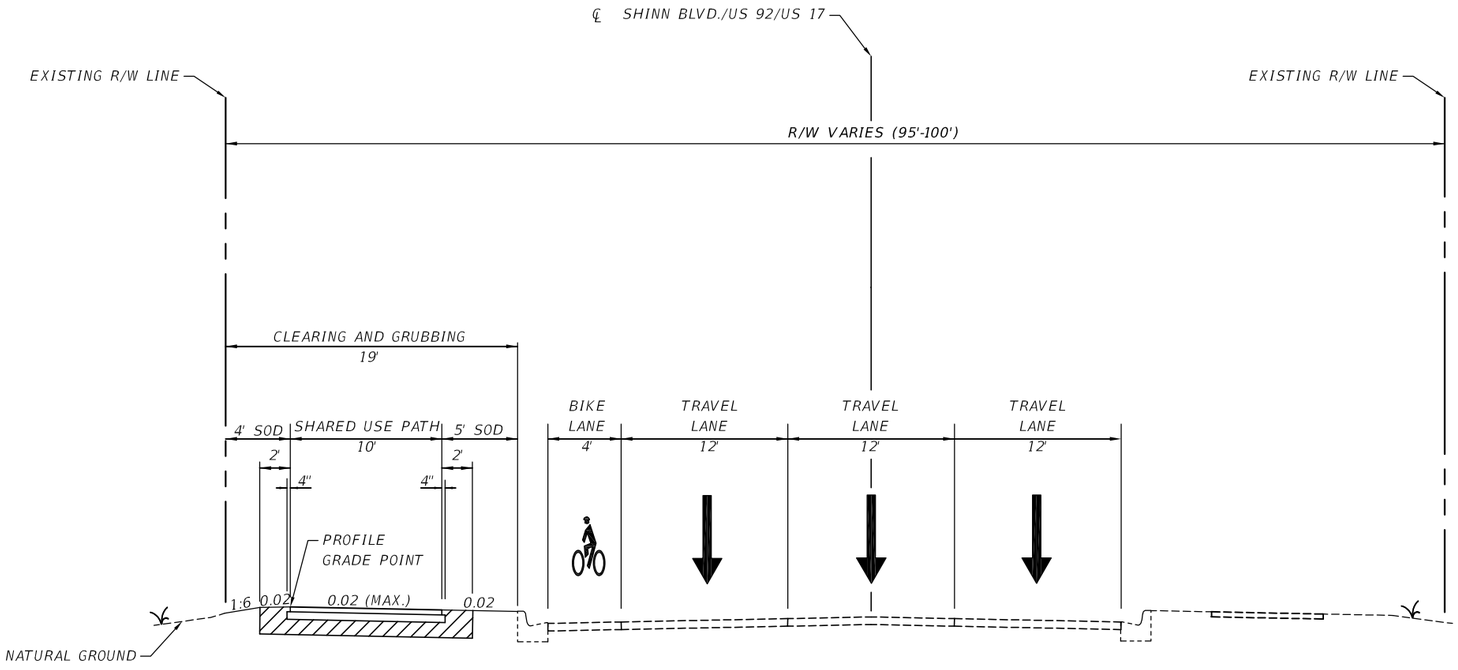
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
(X) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 6



SEGMENT 6
SHINN BOULEVARD/US 92/US 17
W. HAINES BLVD. TO POMELO ST.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 18500
ESTIMATED OPENING YEAR	= 2030	AADT = 24600
ESTIMATED DESIGN YEAR	= 2050	AADT = 35700

K = 9% D = 100% T = 8.8% (24 HOUR)
DESIGN HOUR T = 4.4%
TARGET SPEED = 35 MPH
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	7

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	(X)	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	(X)	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

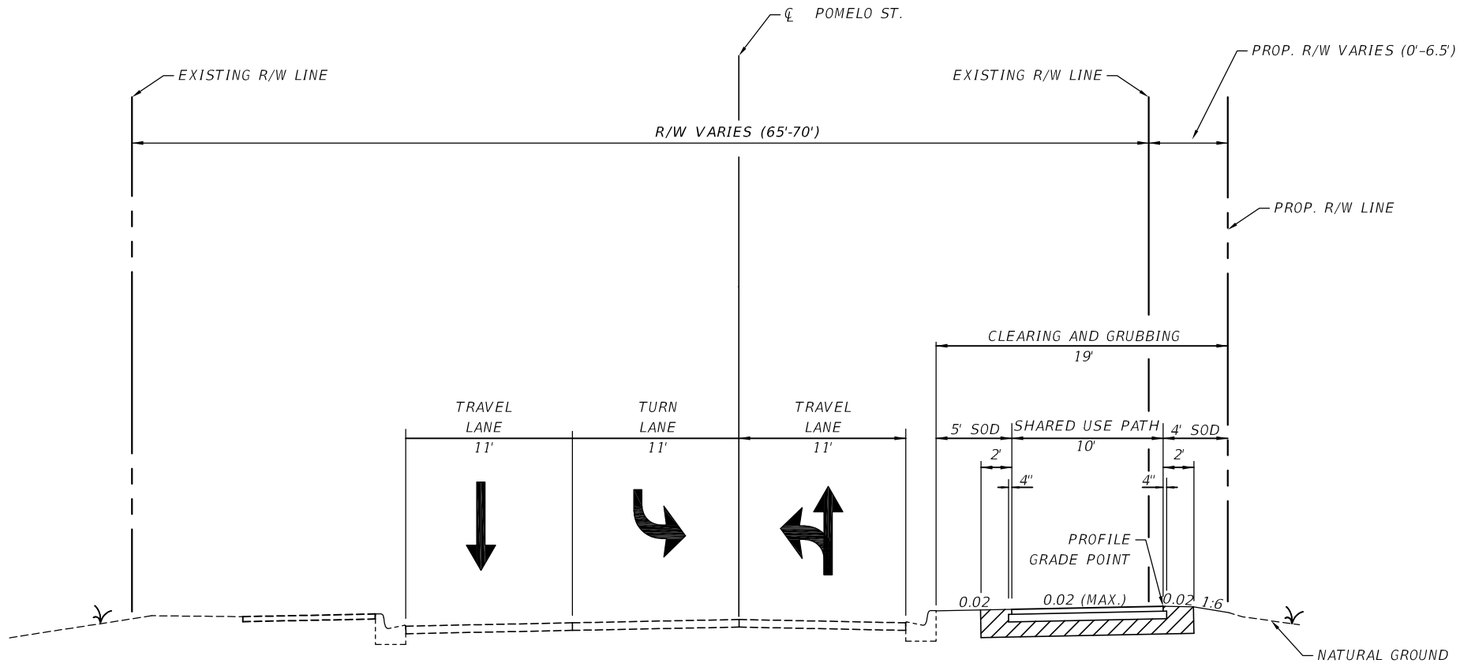
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
(X) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 7



SEGMENT 6
POMELO STREET
SHINN BLVD./US 92/US 17 TO LAKE SHORE WAY/US 92/US 17

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 16600
ESTIMATED OPENING YEAR	= 2030	AADT = 23100
ESTIMATED DESIGN YEAR	= 2050	AADT = 33000

K = 9% D = 56% T = 8.8% (24 HOUR)
DESIGN HOUR T = 4.4%
TARGET SPEED = 40 MPH
DESIGN SPEED = 40 MPH
POSTED SPEED = 40 MPH

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FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	8

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) N/A : L.A. FACILITY
(X) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
(X) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

(X) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

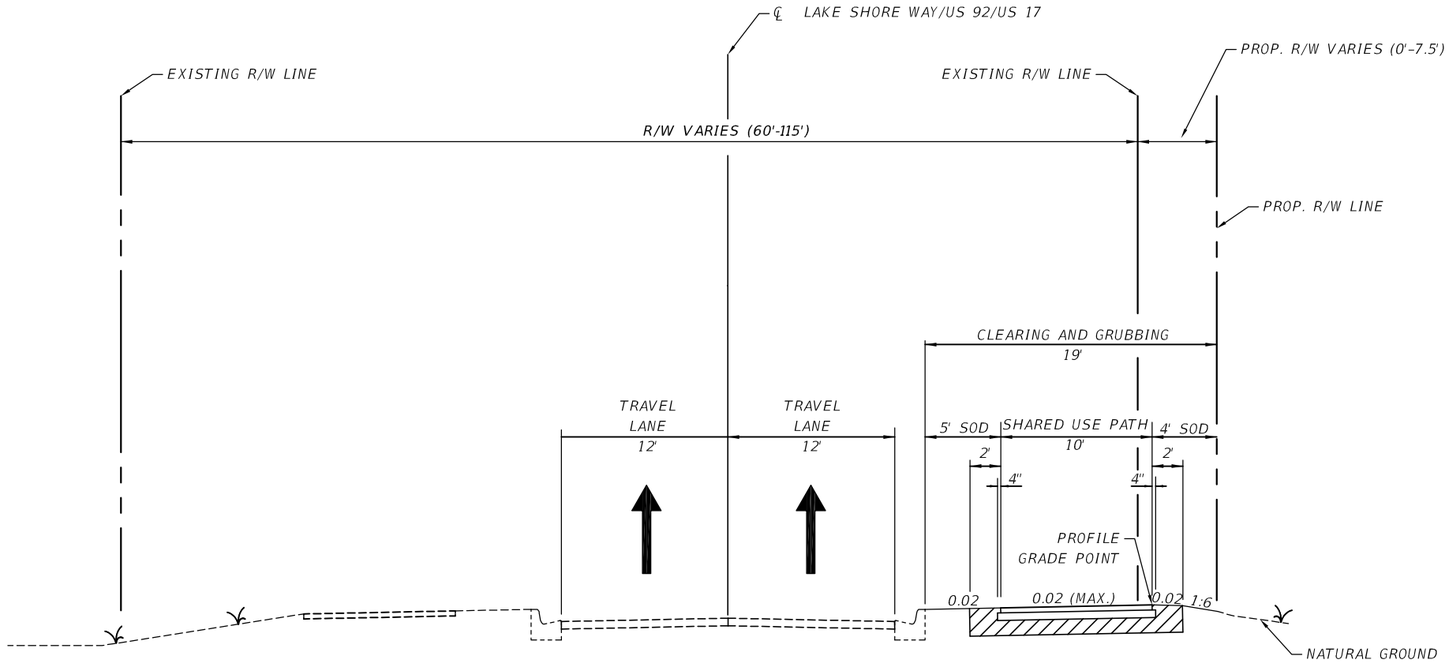
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
(X) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 8



SEGMENT 6
LAKE SHORE WAY/US 92/US 17
POMELO ST. TO N. ROCHELLE AVE.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 11000
ESTIMATED OPENING YEAR	= 2030	AADT = 14600
ESTIMATED DESIGN YEAR	= 2050	AADT = 21200

K = 9% D = 100% T = 8.3% (24 HOUR)
DESIGN HOUR T = 4.2%
TARGET SPEED = 35 MPH
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	9

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	(X)	C3C : SUBURBAN COMM.
(X)	C2 : RURAL	( )	C4 : URBAN GENERAL
(X)	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

(X)	NATIONAL HIGHWAY SYSTEM
( )	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

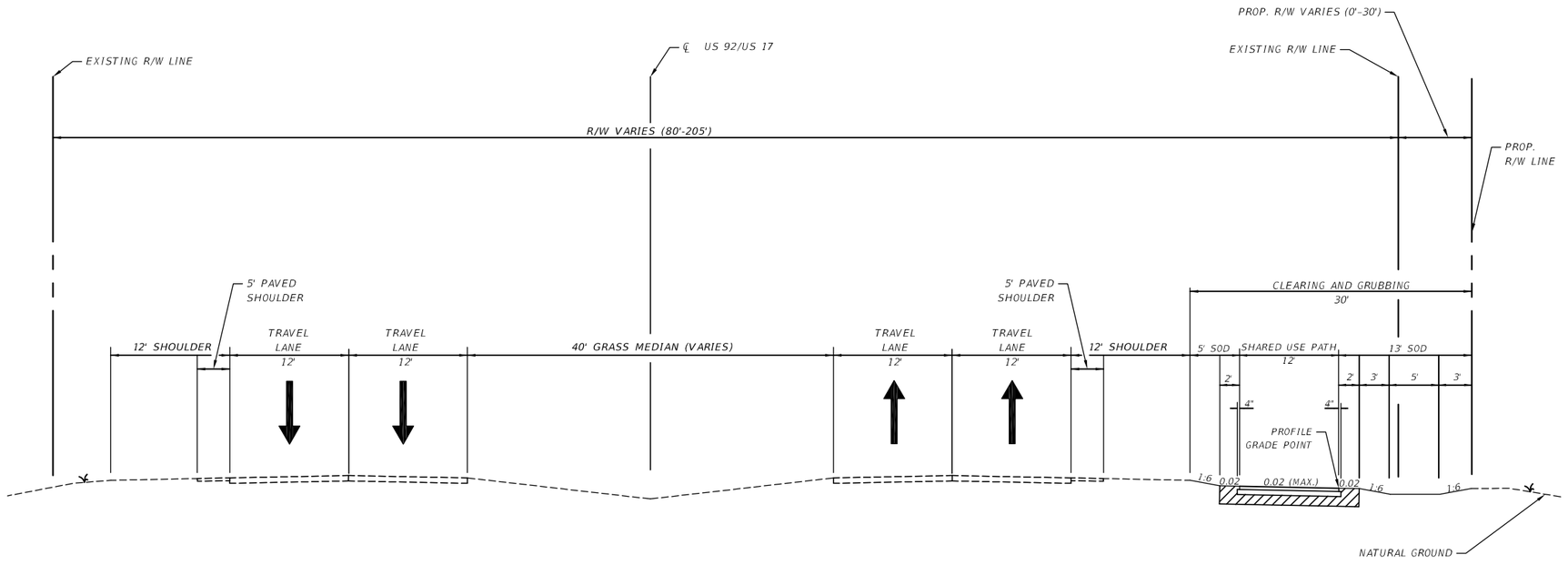
( )	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
(X)	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 9



SEGMENT 7 TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 21500
ESTIMATED OPENING YEAR	= 2030	AADT = 28600
ESTIMATED DESIGN YEAR	= 2050	AADT = 41500

K = 9% D = 56% T = 8% (24 HOUR)
DESIGN HOUR T = 4.0%
TARGET SPEED = 60 MPH
DESIGN SPEED = 60 MPH
POSTED SPEED = 35-60 MPH

SEGMENT 8 TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 28500
ESTIMATED OPENING YEAR	= 2030	AADT = 37900
ESTIMATED DESIGN YEAR	= 2050	AADT = 55000

K = 9% D = 56% T = 8.5% (24 HOUR)
DESIGN HOUR T = 4.3%
TARGET SPEED = 60 MPH
DESIGN SPEED = 60 MPH
POSTED SPEED = 45-60 MPH

CONTEXT CLASSIFICATION NOTES:
C3C FROM N. ROCHELLE AVE. TO CENTURY DR.
C2 FROM CENTURY DR. TO FLETCHER FISH CAMP RD.
C3C FROM FLETCHER FISH CAMP RD. TO DYSON RD.
C3R FROM DYSON RD. TO US 27
C2T FROM US 27 TO W. OF C ST.

SEGMENT 7
US 92/US 17
N. ROCHELLE AVE. TO CENTURY DR.

SEGMENT 8
US 92/US 17
CENTURY DR. TO W. OF C ST.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	10

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	(X)	C4 : URBAN GENERAL
(X)	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

(X)	NATIONAL HIGHWAY SYSTEM
( )	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

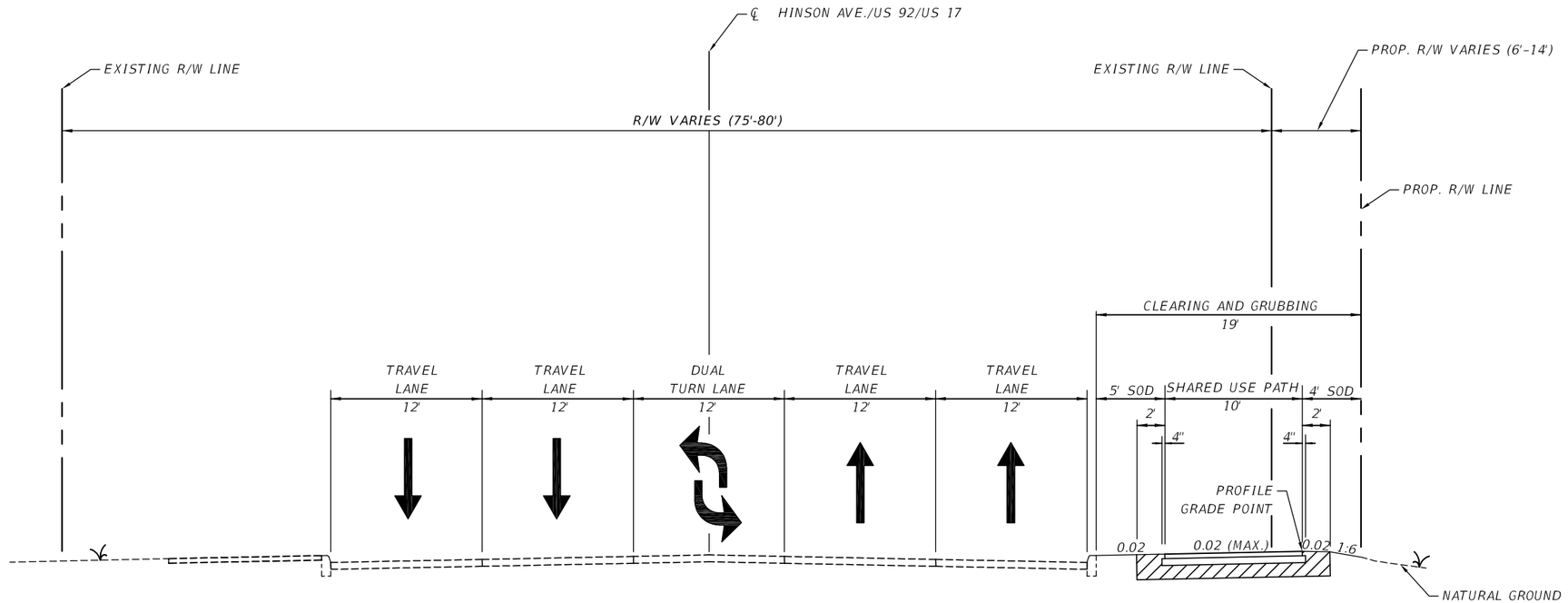
( )	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
(X)	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 10



SEGMENT 9
HINSON AVENUE/US 17/US 92
W. OF C ST. TO N. 6TH ST.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 26500
ESTIMATED OPENING YEAR	= 2030	AADT = 35200
ESTIMATED DESIGN YEAR	= 2050	AADT = 51100

K = 9% D = 56% T = 5.1% (24 HOUR)
DESIGN HOUR T = 2.6%
TARGET SPEED = 45 MPH
DESIGN SPEED = 45 MPH
POSTED SPEED = 30-45 MPH

CONTEXT CLASSIFICATION NOTES:
C2T FROM W. OF C ST. TO S. 1ST ST.
C4 FROM S. 1ST ST. TO N. 6TH ST.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	11

$DATE$ $TIME$

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
(X) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
( ) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
(X) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

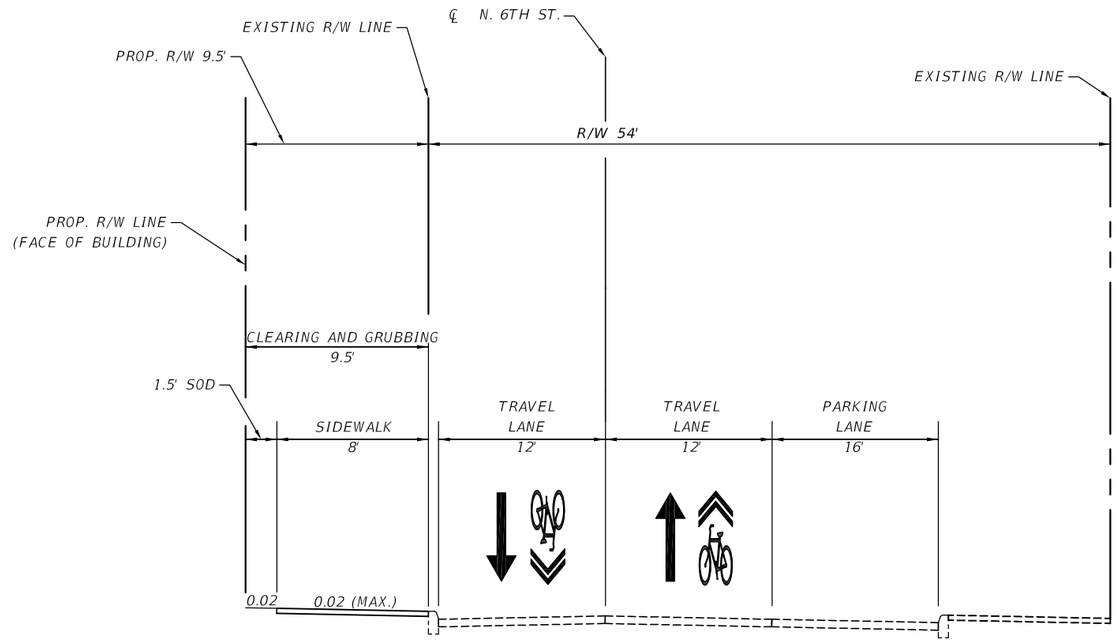
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
(X) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 11



SEGMENT 10
N. 6TH ST.
E. HINSON AVE. TO COURT AVE.

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 950
ESTIMATED OPENING YEAR = 2030 AADT = 1300
ESTIMATED DESIGN YEAR = 2050 AADT = 1800
K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 25 MPH
DESIGN SPEED = 25 MPH
POSTED SPEED = 25 MPH

TRAFFIC DATA SHOWN IS FOR N. 5TH STREET. NO DATA WAS AVAILABLE FOR N. 6TH STREET FROM E. HINSON AVENUE TO COURT AVENUE.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	12

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) N/A : L.A. FACILITY
( ) C3C : SUBURBAN COMM.
(X) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
(X) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

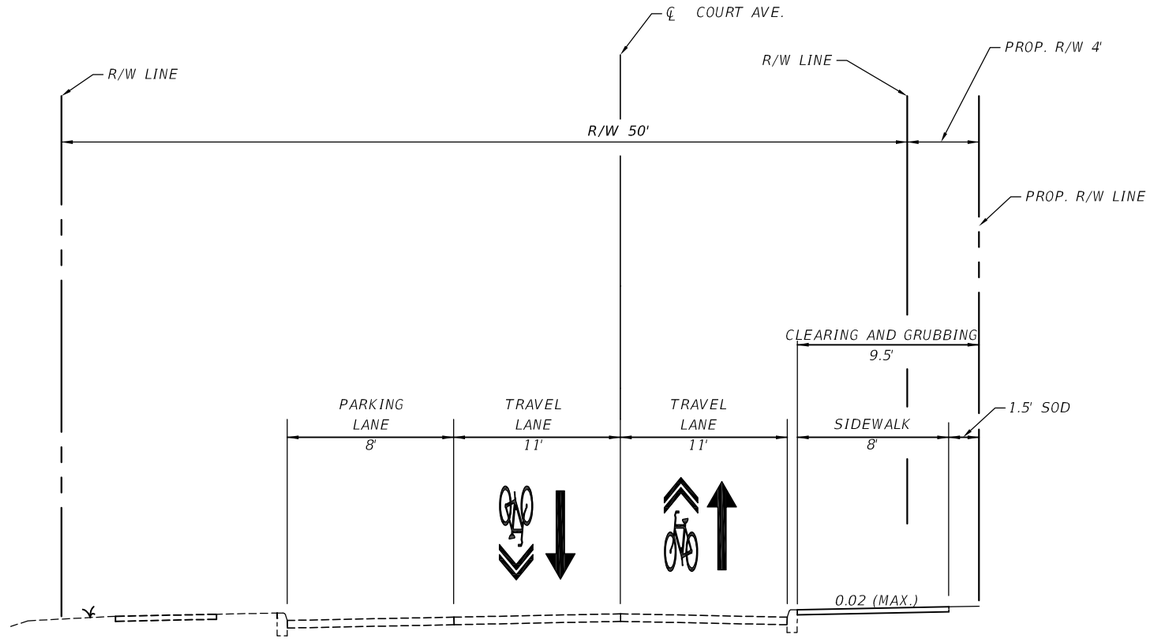
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
(X) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 12



SEGMENT 10
COURT AVENUE
N. 5TH ST. TO N 6TH ST.

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 950
ESTIMATED OPENING YEAR = 2030 AADT = 1300
ESTIMATED DESIGN YEAR = 2050 AADT = 1800
K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 25 MPH
DESIGN SPEED = 25 MPH
POSTED SPEED = 25 MPH

TRAFFIC DATA SHOWN IS FOR N. 5TH STREET. NO DATA WAS AVAILABLE FOR COURT AVENUE FROM N. 5TH STREET TO N. 6TH STREET.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	13

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	(X)	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	(X)	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
( )	STRATEGIC INTERMODAL SYSTEM
( )	STATE HIGHWAY SYSTEM
(X)	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

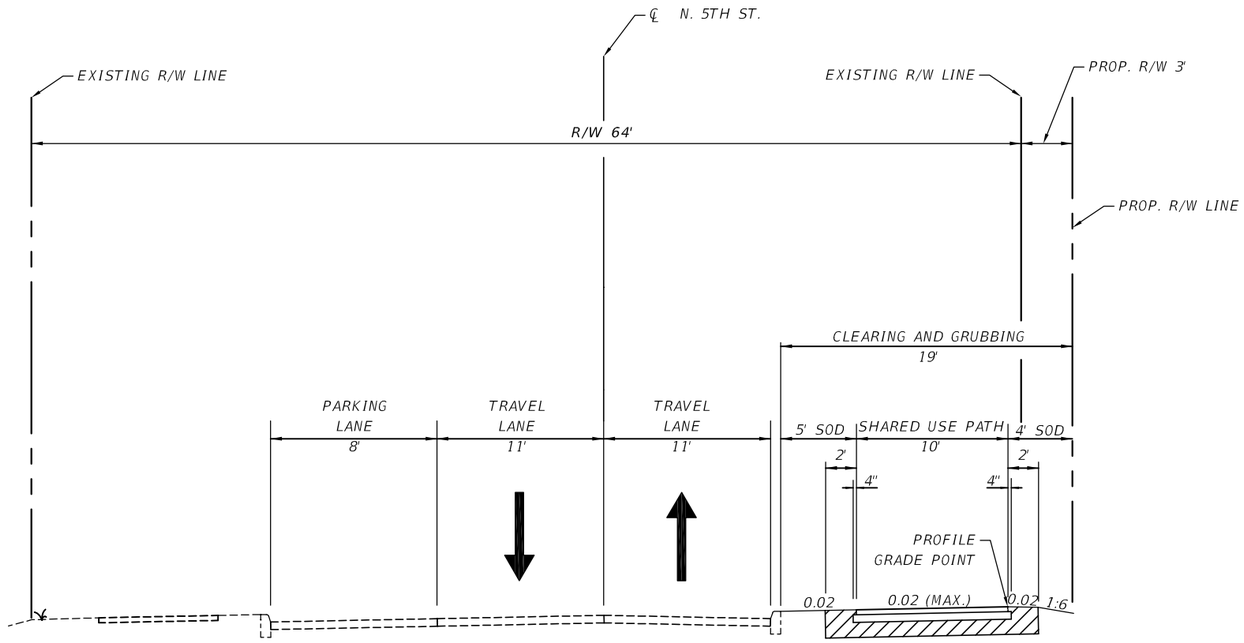
( )	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
(X)	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 13



SEGMENT 10
N. 5TH ST
COURT AVE. TO E. MAIN ST.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 950
ESTIMATED OPENING YEAR	= 2030	AADT = 1300
ESTIMATED DESIGN YEAR	= 2050	AADT = 1800

K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 25 MPH
DESIGN SPEED = 25 MPH
POSTED SPEED = 25 MPH

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	14

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) N/A : L.A. FACILITY
( ) C3C : SUBURBAN COMM.
(X) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
(X) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
( ) STRATEGIC INTERMODAL SYSTEM
( ) STATE HIGHWAY SYSTEM
(X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

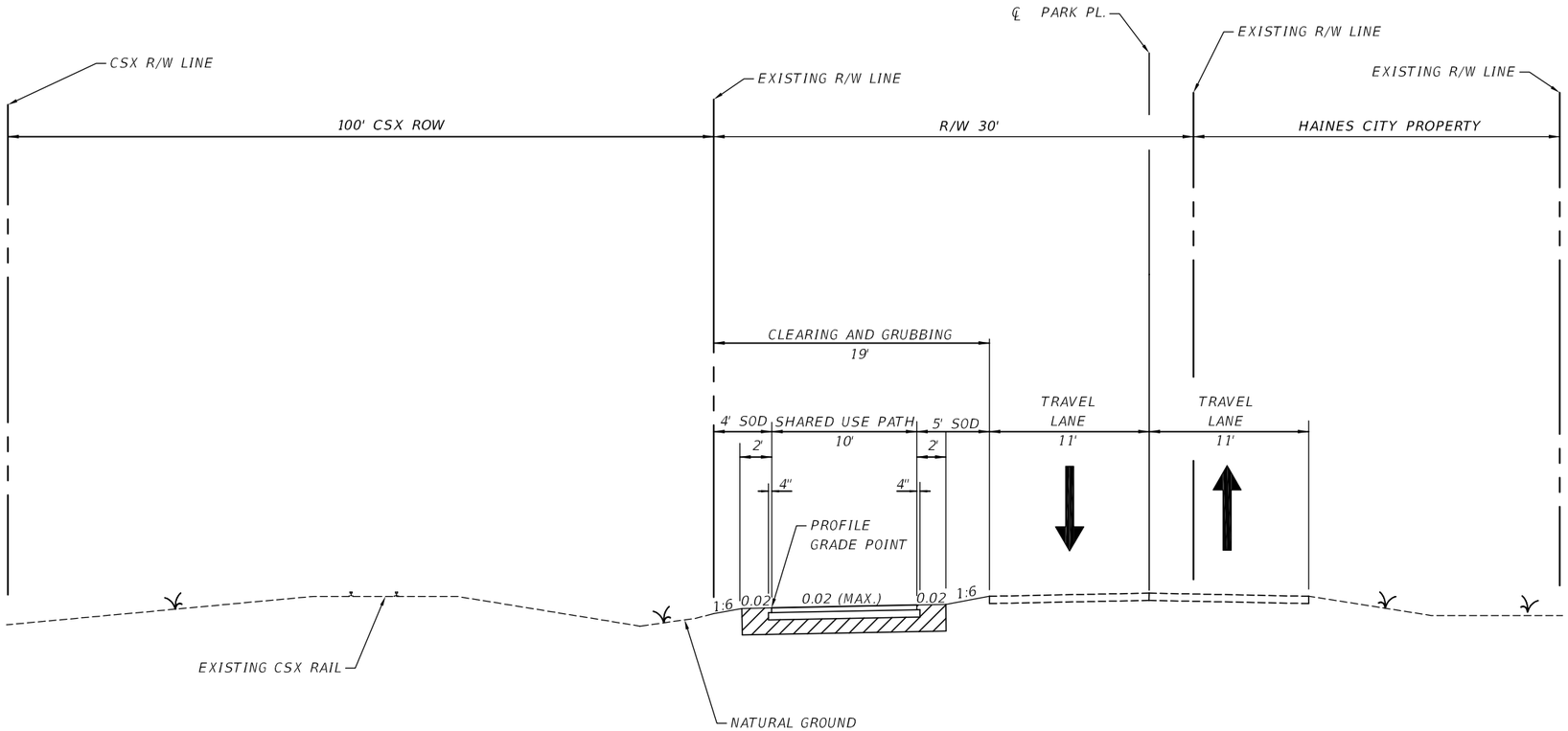
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
(X) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 14



SEGMENT 10
PARK PLACE
INGRAHAM AVE. TO LILY AVE.

TRAFFIC DATA

CURRENT YEAR	= 2019	AADT = 950
ESTIMATED OPENING YEAR	= 2030	AADT = 1300
ESTIMATED DESIGN YEAR	= 2050	AADT = 1800

K = 9% D = 56% T = 13.3% (24 HOUR)
DESIGN HOUR T = 6.7%
TARGET SPEED = 25 MPH
DESIGN SPEED = 25 MPH
POSTED SPEED = 25 MPH

TRAFFIC DATA SHOWN IS FOR N. 5TH STREET. NO DATA WAS AVAILABLE FOR PARK PLACE FROM INGRAHAM AVENUE TO LILY AVENUE.

FINANCIAL PROJECT ID	SHEET NO.
435391-1-22-01	15

$DATE$ $TIME$

APPENDIX H

Historic Trend

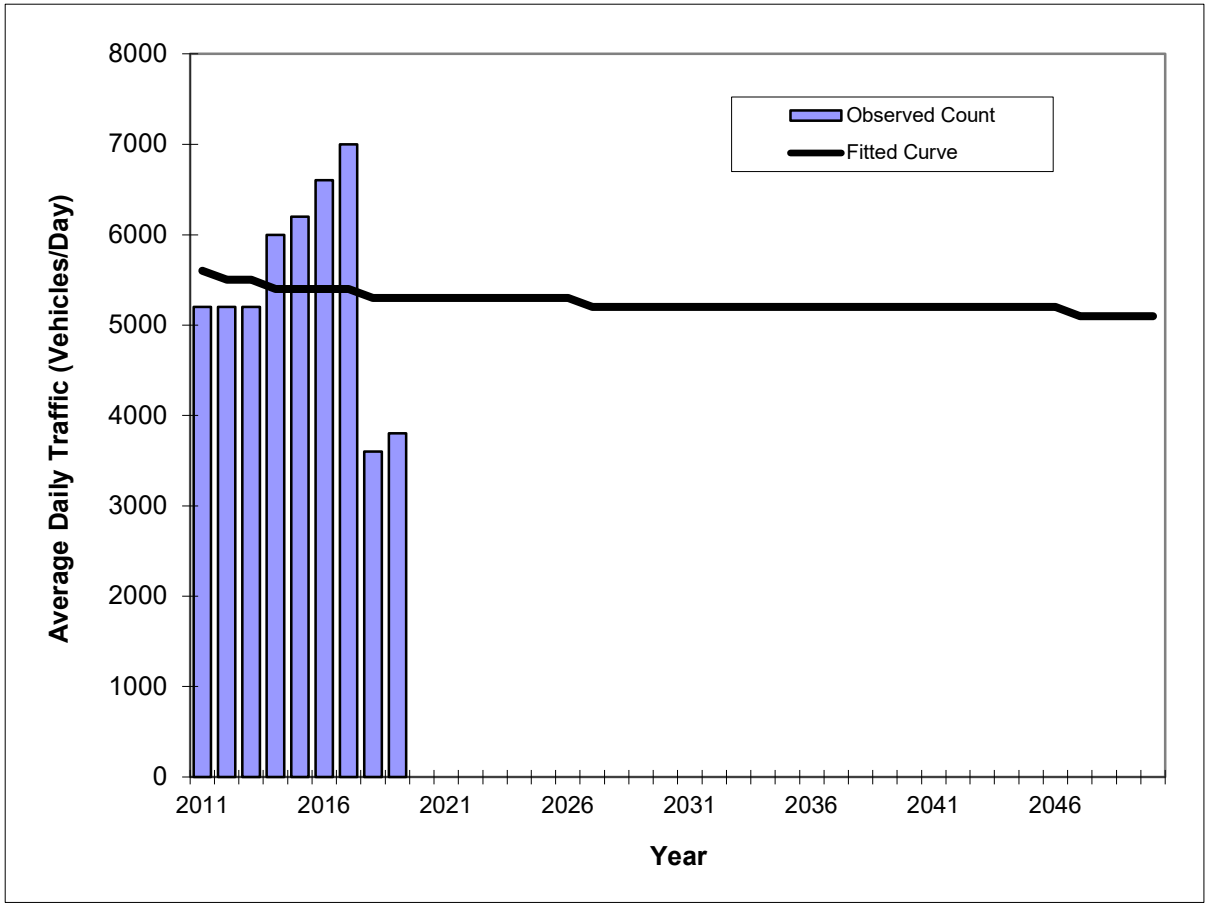
Analysis Worksheets

Traffic Trends - V03.a

RAMSGATE ROAD -- West of Pilaklakaha Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164629
Highway:	RAMSGATE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	5200	5600
2012	5200	5500
2013	5200	5500
2014	6000	5400
2015	6200	5400
2016	6600	5400
2017	7000	5400
2018	3600	5300
2019	3800	5300
2030 Opening Year Trend		
2030	N/A	5200
2040 Mid-Year Trend		
2040	N/A	5200
2050 Design Year Trend		
2050	N/A	5100
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.60%
Compounded Annual Historic Growth Rate:	-0.69%
Compounded Growth Rate (2019 to Design Year):	-0.12%
Printed:	19-Sep-24

Decaying Exponential Growth Option

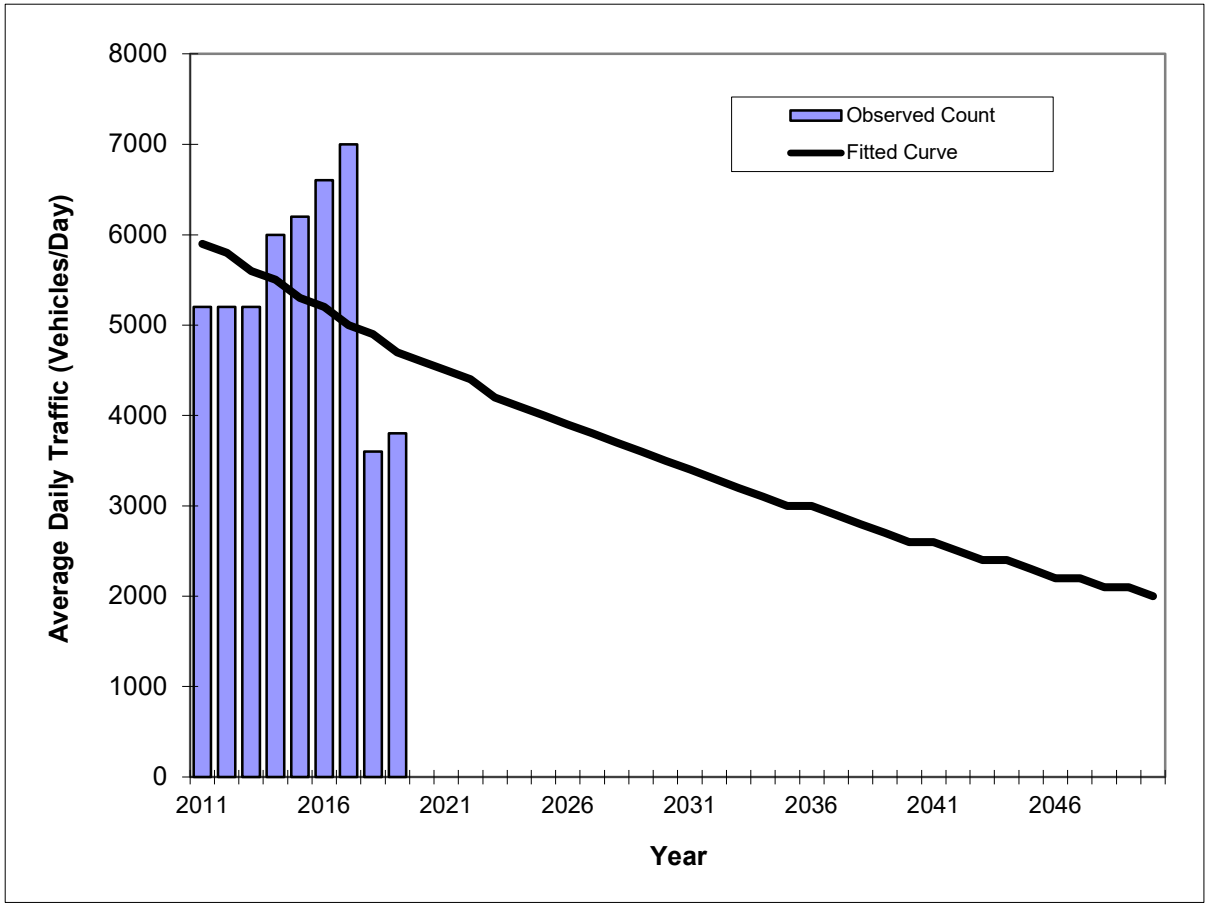
***Axle-Adjusted**

Traffic Trends - V03.a

RAMSGATE ROAD -- West of Pilaklakaha Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164629
Highway:	RAMSGATE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	5200	5900
2012	5200	5800
2013	5200	5600
2014	6000	5500
2015	6200	5300
2016	6600	5200
2017	7000	5000
2018	3600	4900
2019	3800	4700
2030 Opening Year Trend		
2030	N/A	3500
2040 Mid-Year Trend		
2040	N/A	2600
2050 Design Year Trend		
2050	N/A	2000
TRANPLAN Forecasts/Trends		

Trend R-squared:	10.86%
Compounded Annual Historic Growth Rate:	-2.80%
Compounded Growth Rate (2019 to Design Year):	-2.72%
Printed:	19-Sep-24

Exponential Growth Option

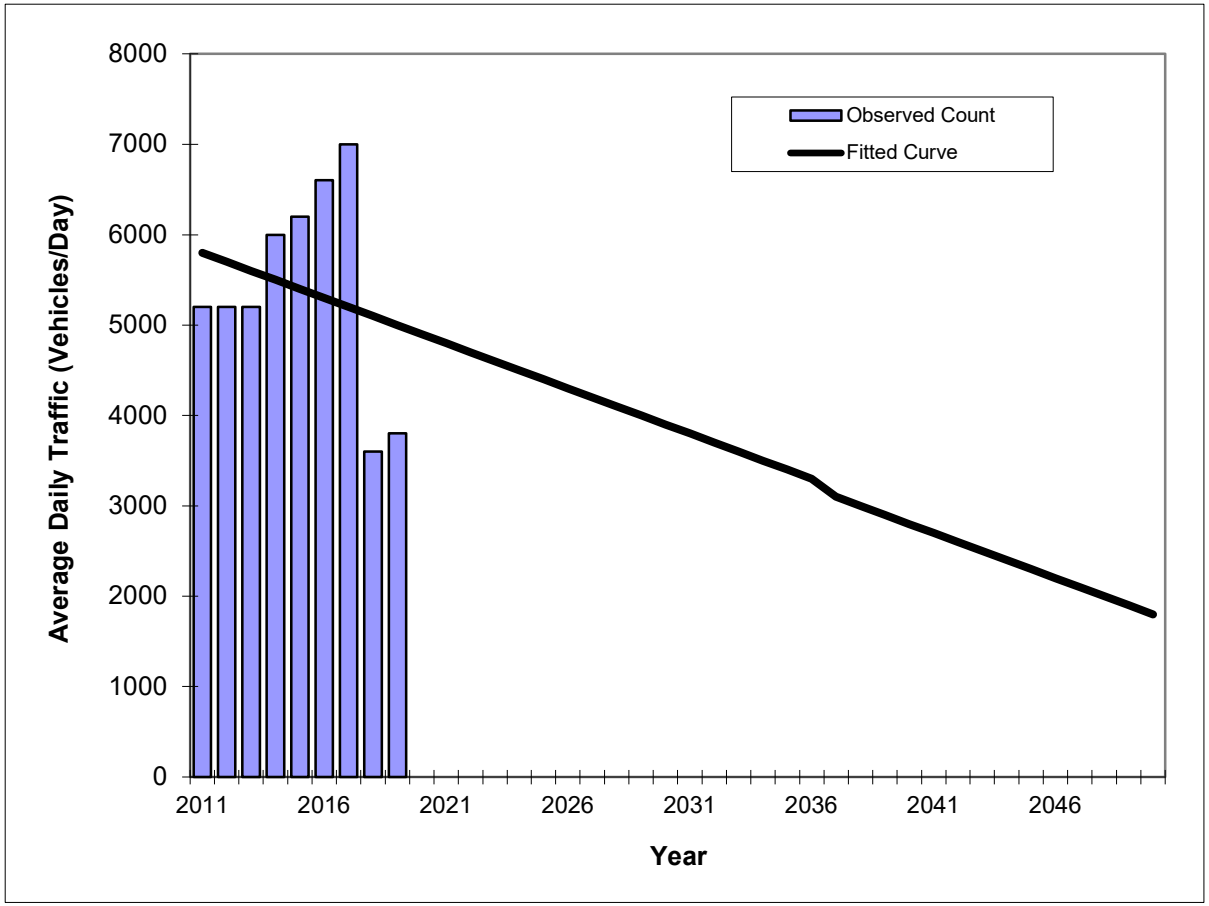
***Axle-Adjusted**

Traffic Trends - V03.a

RAMSGATE ROAD -- West of Pilaklakaha Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164629
Highway:	RAMSGATE ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	5200	5800
2012	5200	5700
2013	5200	5600
2014	6000	5500
2015	6200	5400
2016	6600	5300
2017	7000	5200
2018	3600	5100
2019	3800	5000
2030 Opening Year Trend		
2030	N/A	3900
2040 Mid-Year Trend		
2040	N/A	2800
2050 Design Year Trend		
2050	N/A	1800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-103
Trend R-squared:	5.87%
Trend Annual Historic Growth Rate:	-1.72%
Trend Growth Rate (2019 to Design Year):	-2.06%
Printed:	19-Sep-24

Straight Line Growth Option

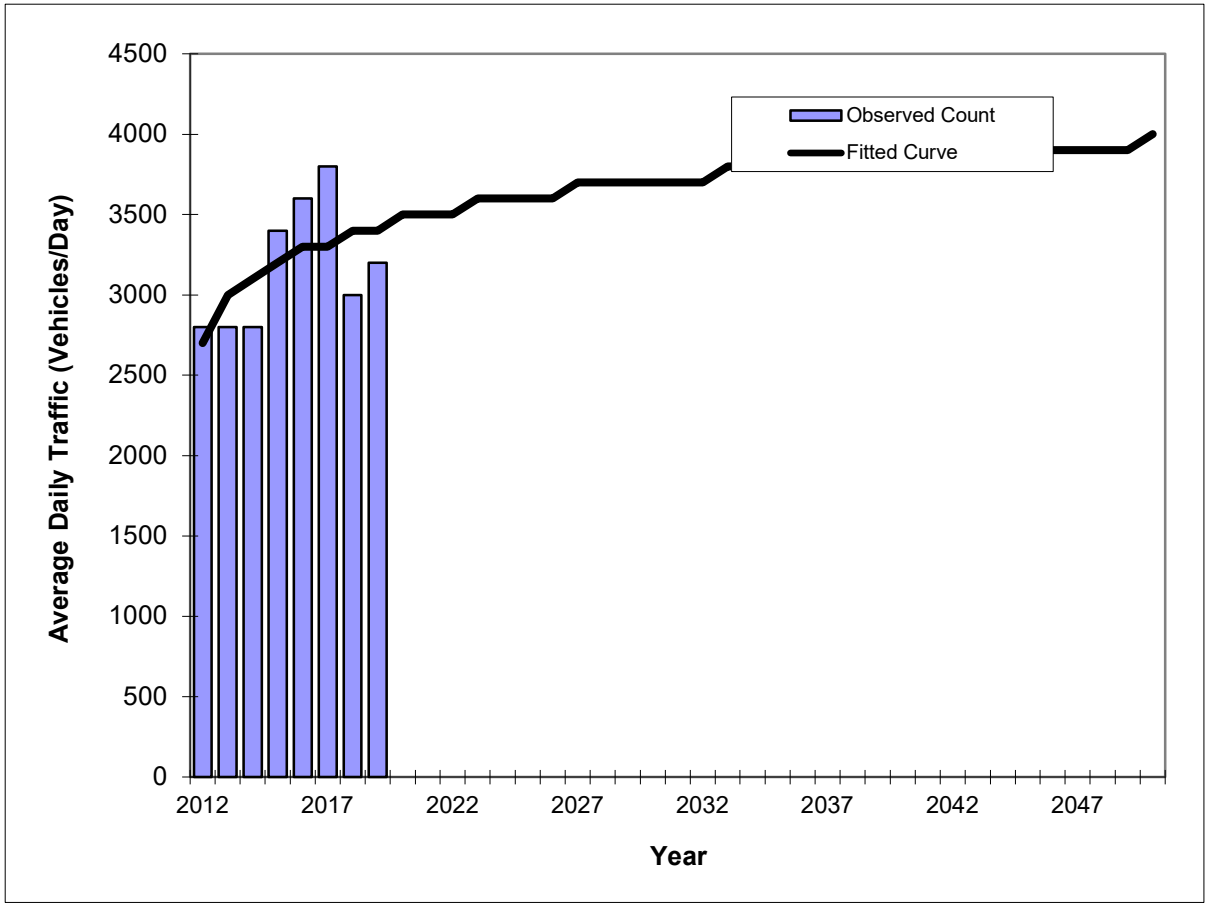
***Axle-Adjusted**

Traffic Trends - V03.a

STADIUM ROAD -- East of Bennett St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164962
Highway:	STADIUM ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	2800	2700
2013	2800	3000
2014	2800	3100
2015	3400	3200
2016	3600	3300
2017	3800	3300
2018	3000	3400
2019	3200	3400
2030 Opening Year Trend		
2030	N/A	3700
2040 Mid-Year Trend		
2040	N/A	3900
2050 Design Year Trend		
2050	N/A	4000
TRANPLAN Forecasts/Trends		

Trend R-squared:	35.85%
Compounded Annual Historic Growth Rate:	3.35%
Compounded Growth Rate (2019 to Design Year):	0.53%
Printed:	19-Sep-24

Decaying Exponential Growth Option

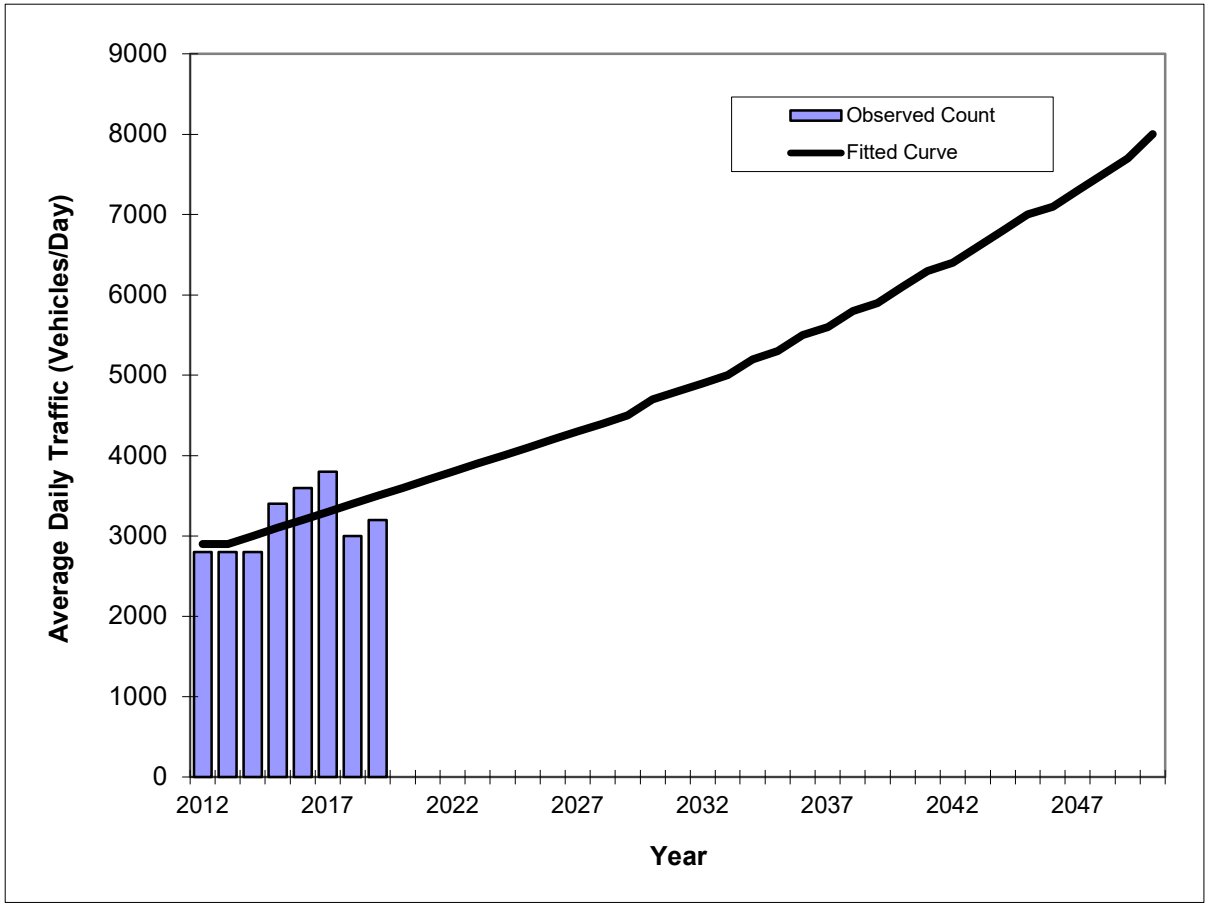
***Axle-Adjusted**

Traffic Trends - V03.a

STADIUM ROAD -- East of Bennett St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164962
Highway:	STADIUM ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	2800	2900
2013	2800	2900
2014	2800	3000
2015	3400	3100
2016	3600	3200
2017	3800	3300
2018	3000	3400
2019	3200	3500
2030 Opening Year Trend		
2030	N/A	4700
2040 Mid-Year Trend		
2040	N/A	6100
2050 Design Year Trend		
2050	N/A	8000
TRANPLAN Forecasts/Trends		

Trend R-squared:	29.31%
Compounded Annual Historic Growth Rate:	2.72%
Compounded Growth Rate (2019 to Design Year):	2.70%
Printed:	19-Sep-24

Exponential Growth Option

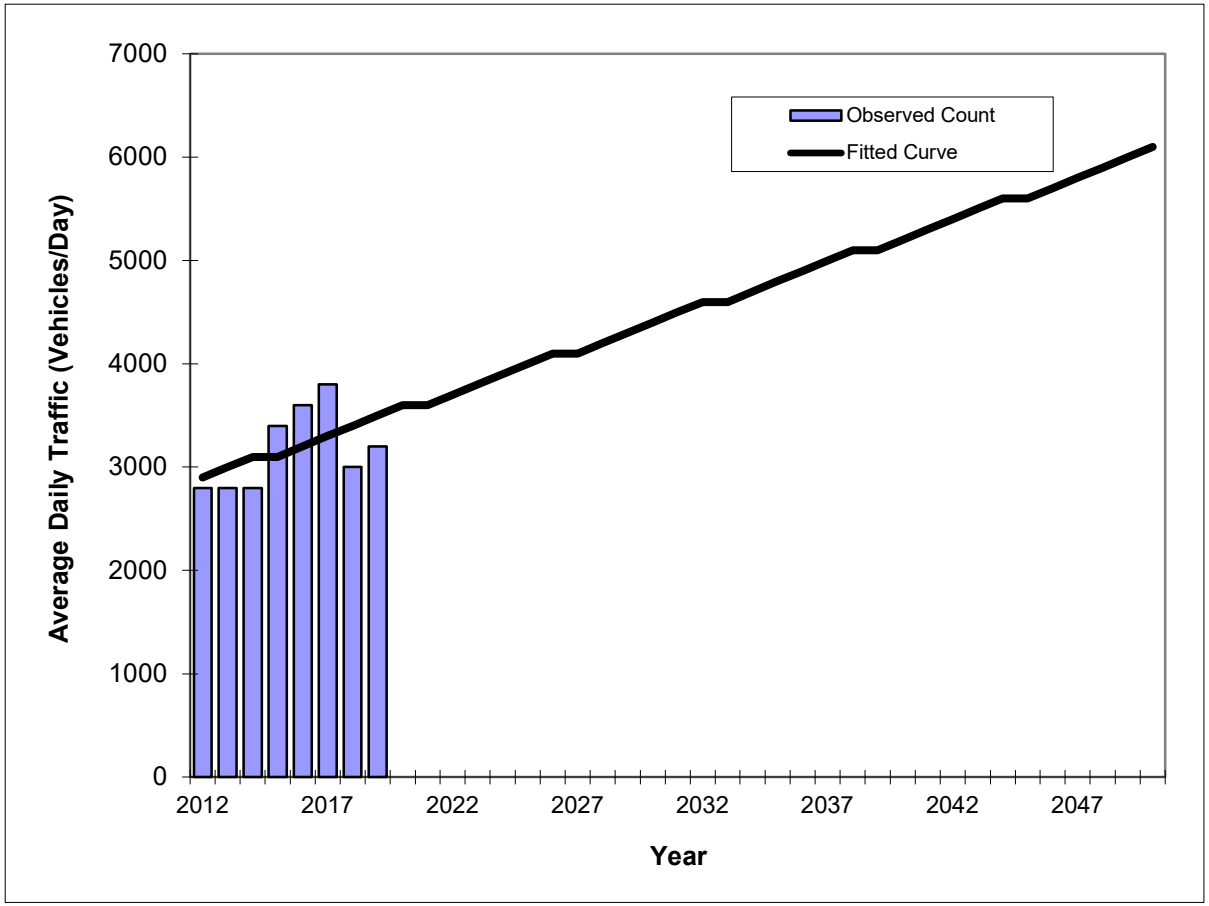
***Axle-Adjusted**

Traffic Trends - V03.a

STADIUM ROAD -- East of Bennett St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164962
Highway:	STADIUM ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	2800	2900
2013	2800	3000
2014	2800	3100
2015	3400	3100
2016	3600	3200
2017	3800	3300
2018	3000	3400
2019	3200	3500
2030 Opening Year Trend		
2030	N/A	4400
2040 Mid-Year Trend		
2040	N/A	5200
2050 Design Year Trend		
2050	N/A	6100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	83
Trend R-squared:	27.13%
Trend Annual Historic Growth Rate:	2.96%
Trend Growth Rate (2019 to Design Year):	2.40%
Printed:	19-Sep-24

Straight Line Growth Option

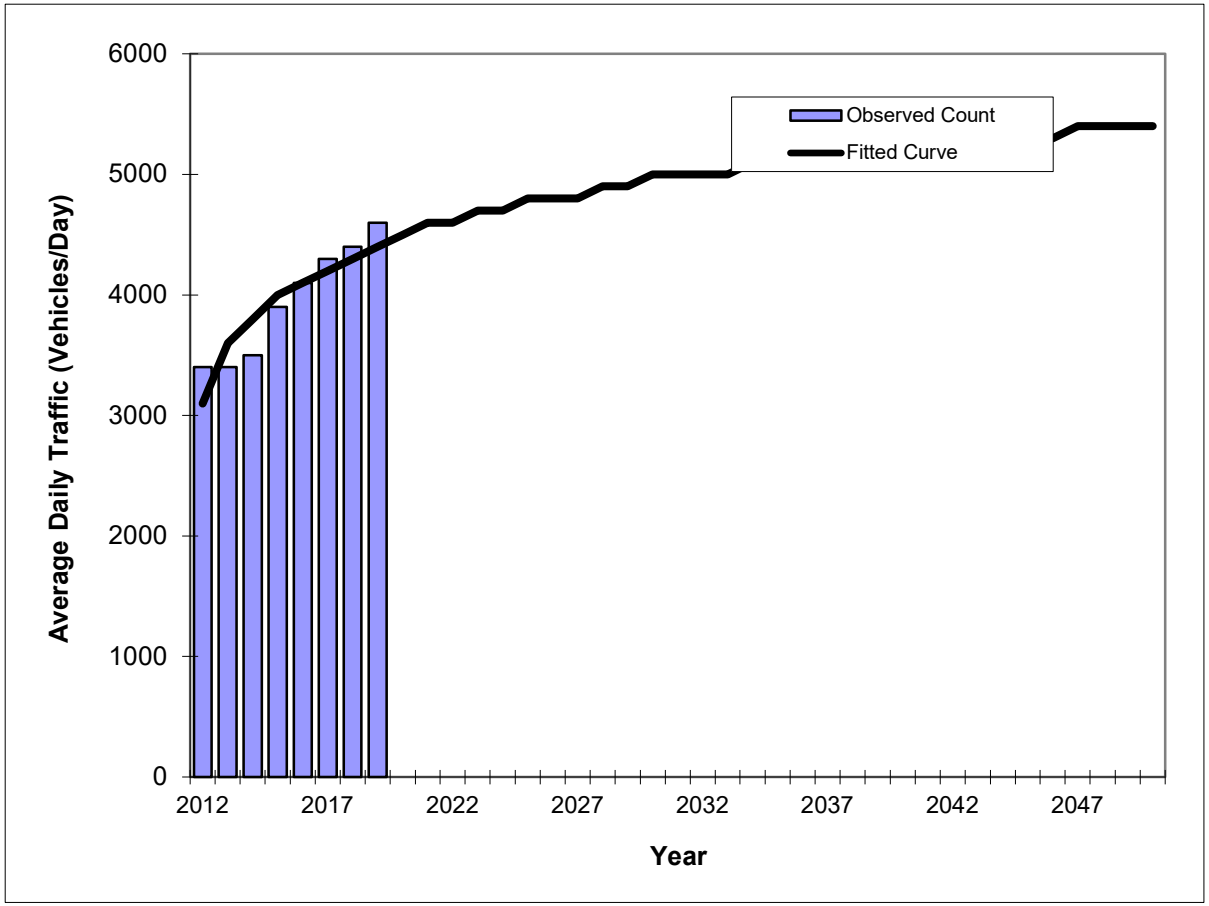
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE ALFRED ROAD -- West of Adams Barn Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164923
Highway:	LAKE ALFRED ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	3400	3100
2013	3400	3600
2014	3500	3800
2015	3900	4000
2016	4100	4100
2017	4300	4200
2018	4400	4300
2019	4600	4400
2030 Opening Year Trend		
2030	N/A	5000
2040 Mid-Year Trend		
2040	N/A	5200
2050 Design Year Trend		
2050	N/A	5400
TRANPLAN Forecasts/Trends		

Trend R-squared:	84.55%
Compounded Annual Historic Growth Rate:	5.13%
Compounded Growth Rate (2019 to Design Year):	0.66%
Printed:	19-Sep-24

Decaying Exponential Growth Option

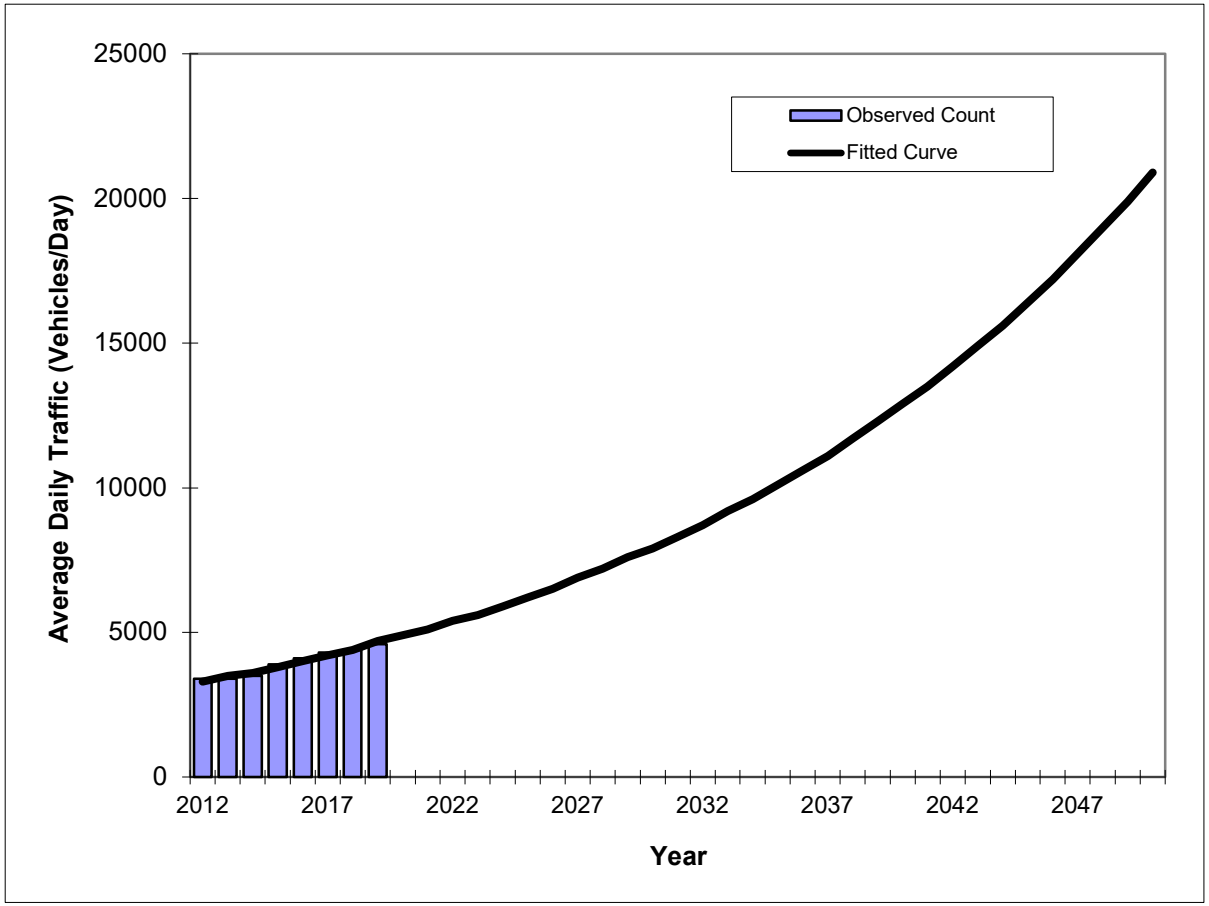
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE ALFRED ROAD -- West of Adams Barn Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164923
Highway:	LAKE ALFRED ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	3400	3300
2013	3400	3500
2014	3500	3600
2015	3900	3800
2016	4100	4000
2017	4300	4200
2018	4400	4400
2019	4600	4700
2030 Opening Year Trend		
2030	N/A	7900
2040 Mid-Year Trend		
2040	N/A	12900
2050 Design Year Trend		
2050	N/A	20900
TRANPLAN Forecasts/Trends		

Trend R-squared:	95.97%
Compounded Annual Historic Growth Rate:	5.18%
Compounded Growth Rate (2019 to Design Year):	4.93%
Printed:	19-Sep-24

Exponential Growth Option

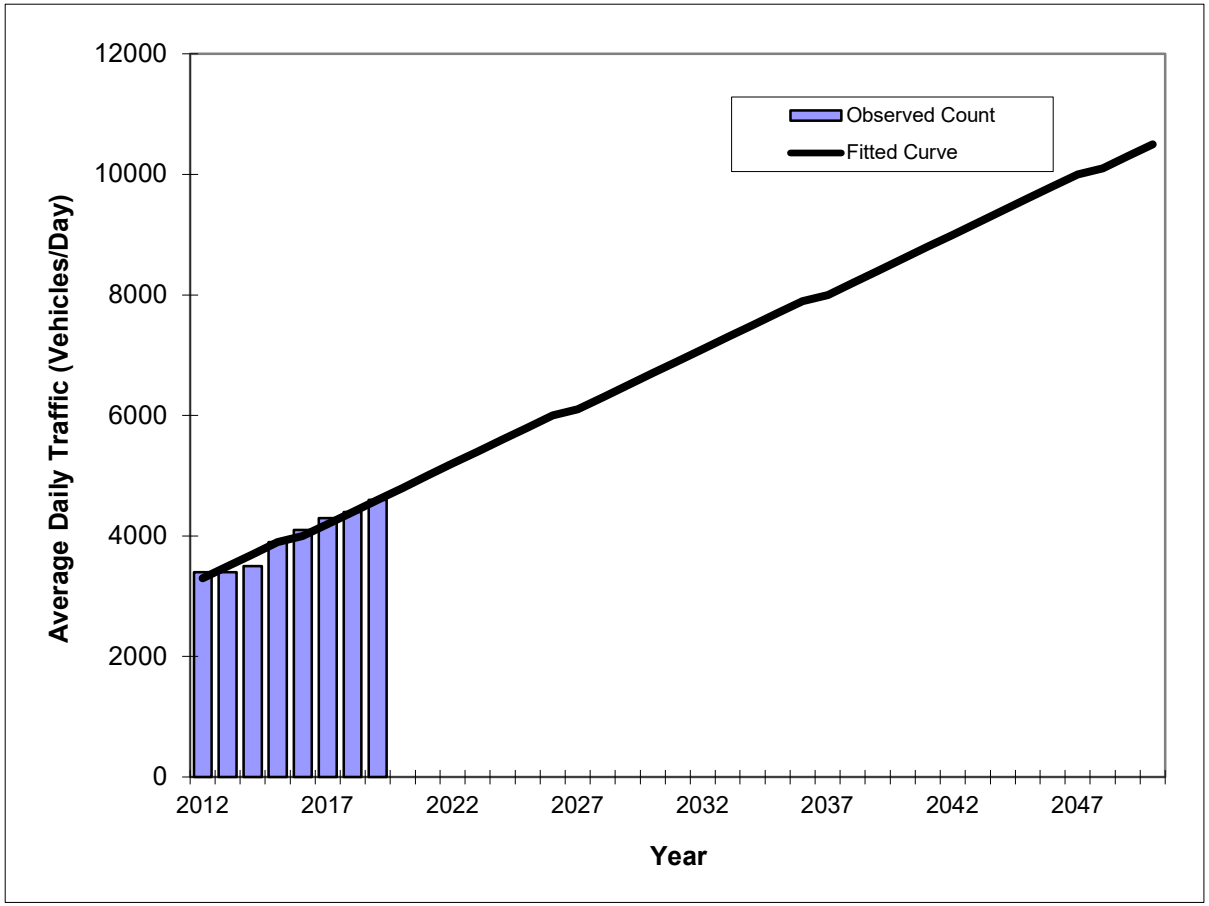
***Axle-Adjusted**

Traffic Trends - V03.a

LAKE ALFRED ROAD -- West of Adams Barn Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164923
Highway:	LAKE ALFRED ROAD



Year	Traffic (ADT/AADT) Count*	Trend**
2012	3400	3300
2013	3400	3500
2014	3500	3700
2015	3900	3900
2016	4100	4000
2017	4300	4200
2018	4400	4400
2019	4600	4600
2030 Opening Year Trend		
2030	N/A	6700
2040 Mid-Year Trend		
2040	N/A	8600
2050 Design Year Trend		
2050	N/A	10500
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

**** Annual Trend Increase:**	190
Trend R-squared:	96.44%
Trend Annual Historic Growth Rate:	5.63%
Trend Growth Rate (2019 to Design Year):	4.14%
Printed:	19-Sep-24

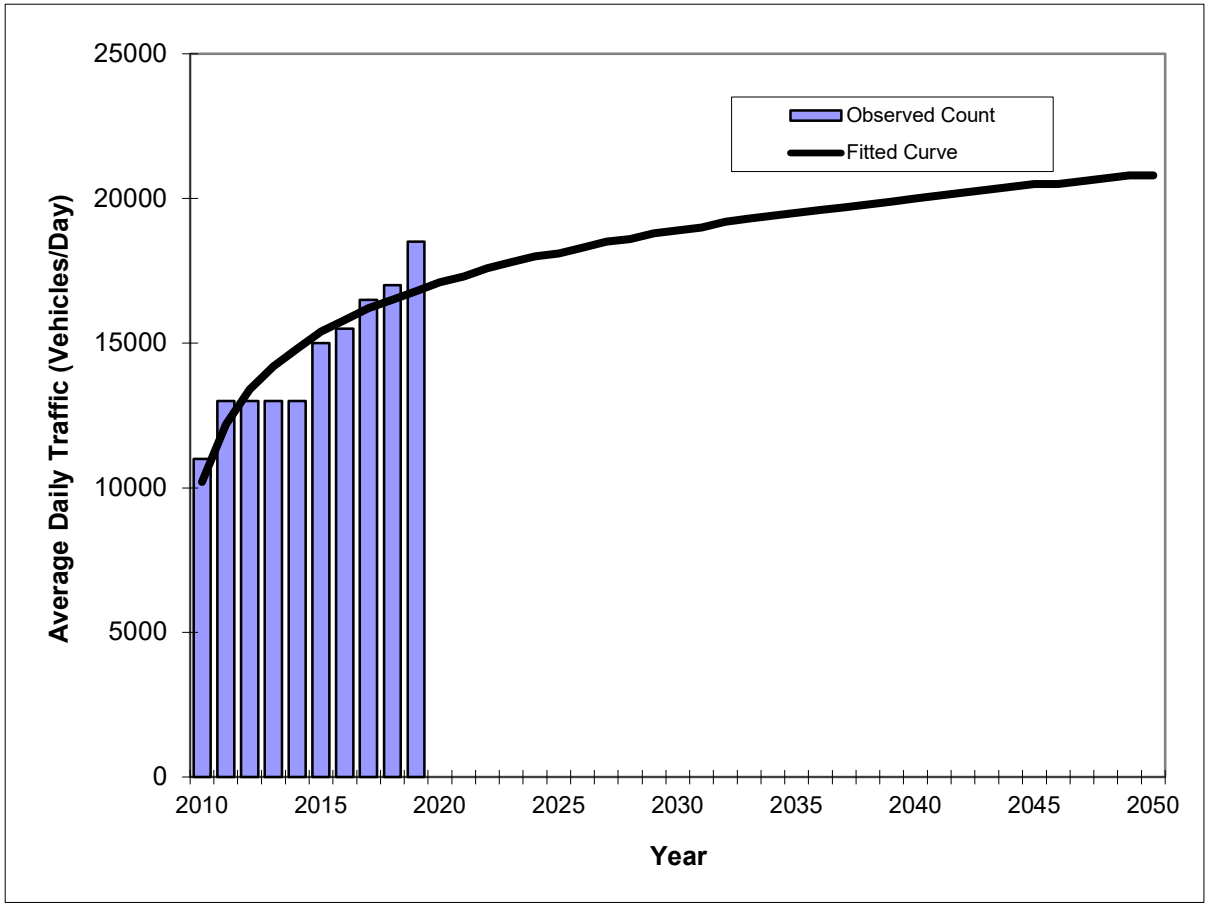
Straight Line Growth Option

Traffic Trends - V03.a

SR 600/US 17/92 -- South of Haines Blvd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165264
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	10200
2011	13000	12200
2012	13000	13400
2013	13000	14200
2014	13000	14800
2015	15000	15400
2016	15500	15800
2017	16500	16200
2018	17000	16500
2019	18500	16800
2030 Opening Year Trend		
2030	N/A	18900
2040 Mid-Year Trend		
2040	N/A	20000
2050 Design Year Trend		
2050	N/A	20800
TRANPLAN Forecasts/Trends		

Trend R-squared:	80.44%
Compounded Annual Historic Growth Rate:	5.70%
Compounded Growth Rate (2019 to Design Year):	0.69%
Printed:	19-Sep-24

Decaying Exponential Growth Option

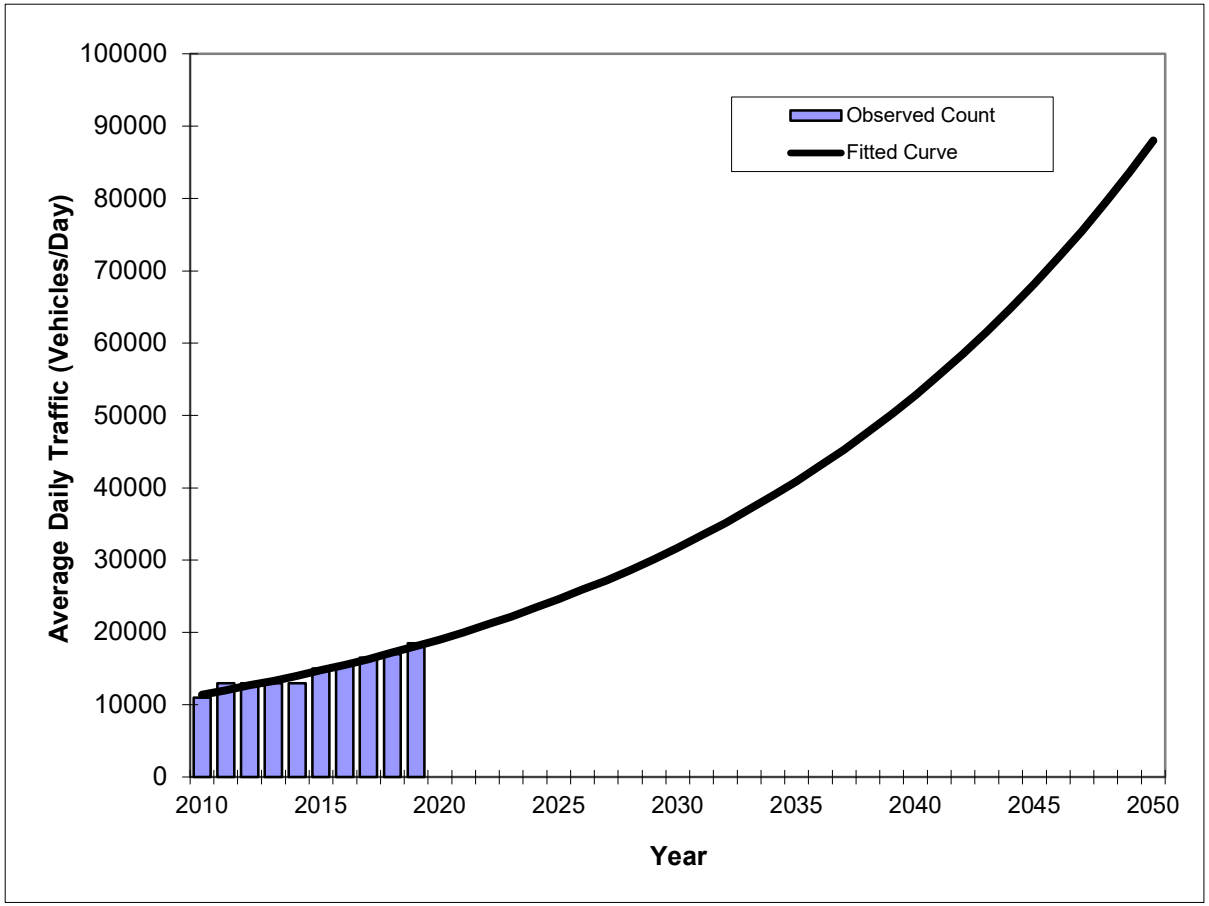
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- South of Haines Blvd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165264
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	11400
2011	13000	12000
2012	13000	12700
2013	13000	13300
2014	13000	14000
2015	15000	14800
2016	15500	15500
2017	16500	16300
2018	17000	17200
2019	18500	18100
2030 Opening Year Trend		
2030	N/A	31700
2040 Mid-Year Trend		
2040	N/A	52800
2050 Design Year Trend		
2050	N/A	88000
TRANPLAN Forecasts/Trends		

Trend R-squared:	93.27%
Compounded Annual Historic Growth Rate:	5.27%
Compounded Growth Rate (2019 to Design Year):	5.23%
Printed:	19-Sep-24

Exponential Growth Option

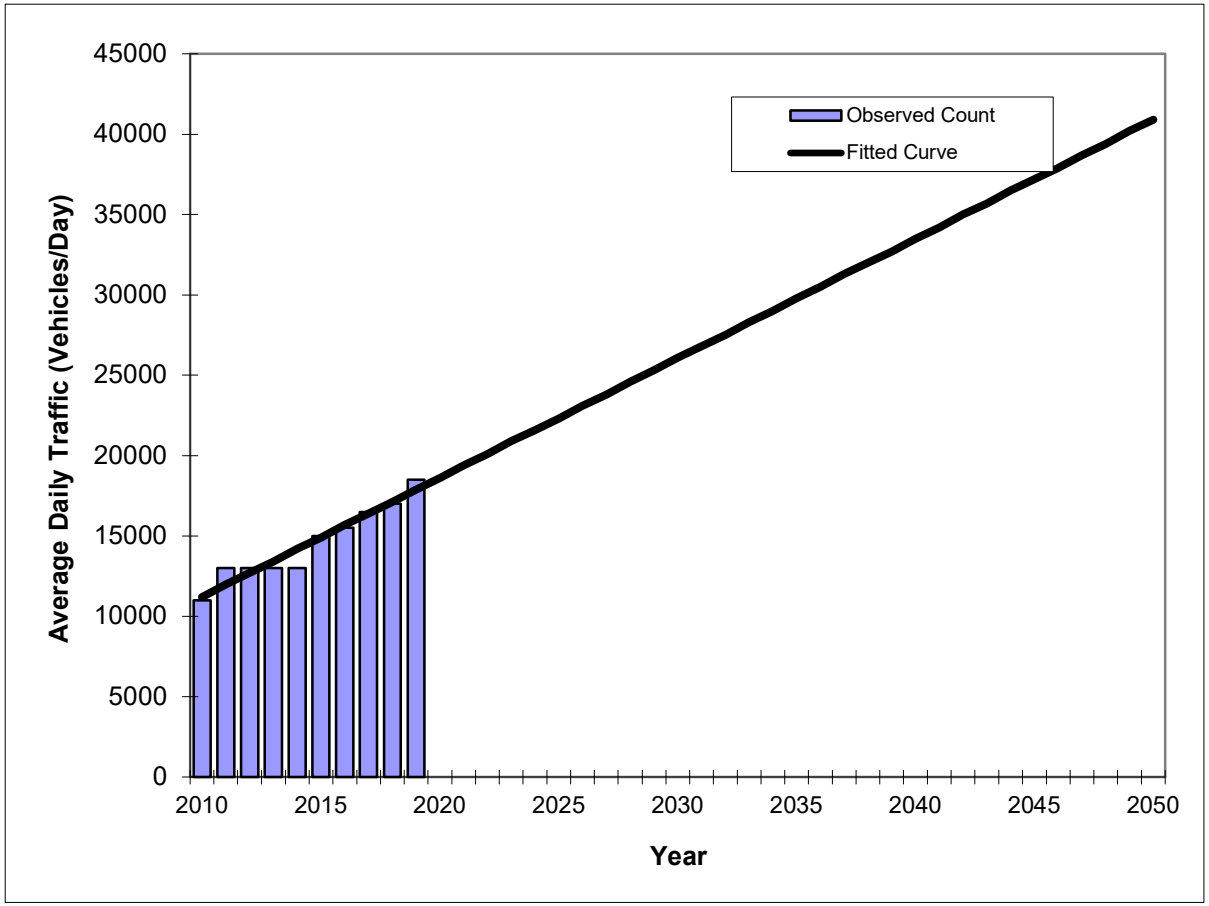
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- South of Haines Blvd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165264
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	11200
2011	13000	12000
2012	13000	12700
2013	13000	13400
2014	13000	14200
2015	15000	14900
2016	15500	15700
2017	16500	16400
2018	17000	17100
2019	18500	17900
2030 Opening Year Trend		
2030	N/A	26100
2040 Mid-Year Trend		
2040	N/A	33500
2050 Design Year Trend		
2050	N/A	40900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	742
Trend R-squared:	93.33%
Trend Annual Historic Growth Rate:	6.65%
Trend Growth Rate (2019 to Design Year):	4.14%
Printed:	19-Sep-24

Straight Line Growth Option

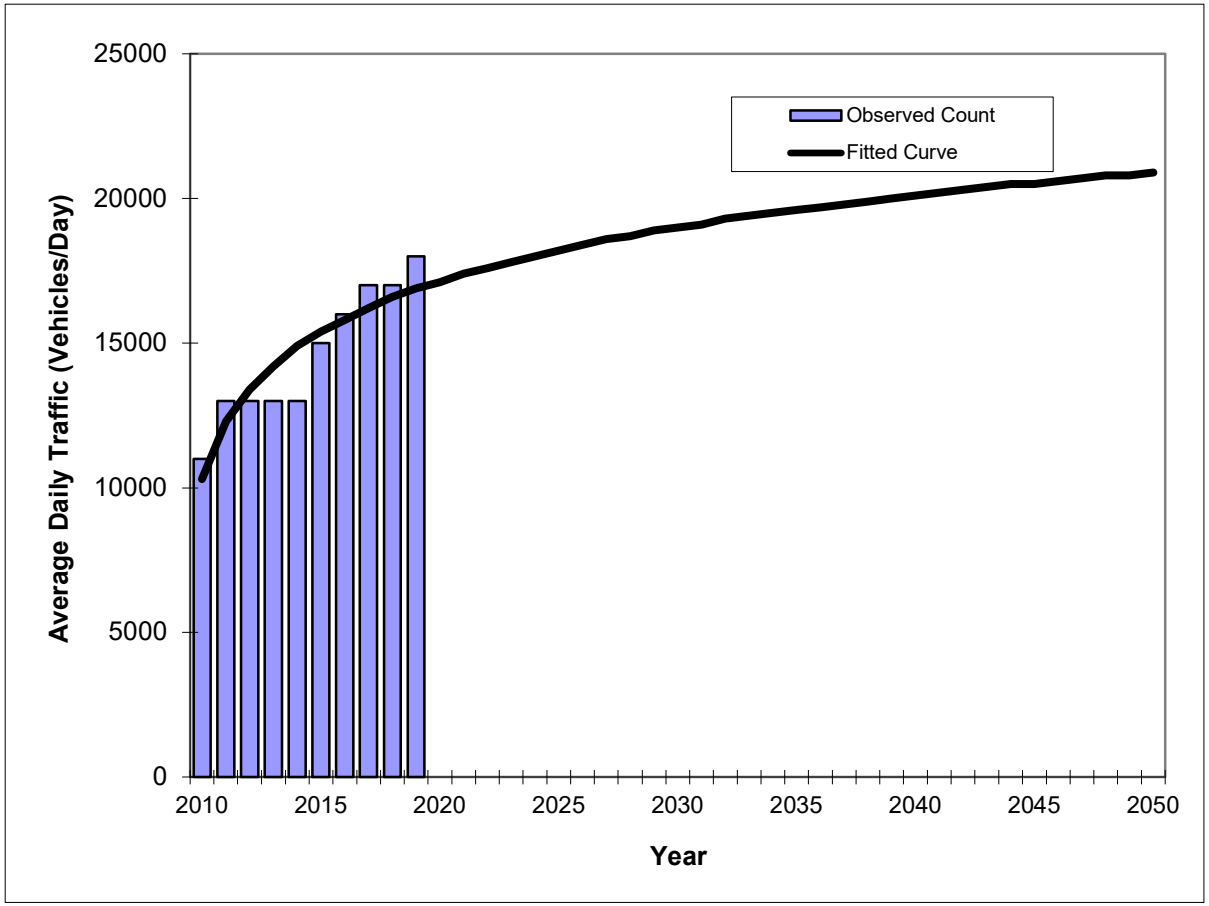
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- North of Pierce St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165263
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	10300
2011	13000	12300
2012	13000	13400
2013	13000	14200
2014	13000	14900
2015	15000	15400
2016	16000	15800
2017	17000	16200
2018	17000	16600
2019	18000	16900
2030 Opening Year Trend		
2030	N/A	19000
2040 Mid-Year Trend		
2040	N/A	20100
2050 Design Year Trend		
2050	N/A	20900
TRANPLAN Forecasts/Trends		

Trend R-squared:	82.24%
Compounded Annual Historic Growth Rate:	5.66%
Compounded Growth Rate (2019 to Design Year):	0.69%
Printed:	19-Sep-24

Decaying Exponential Growth Option

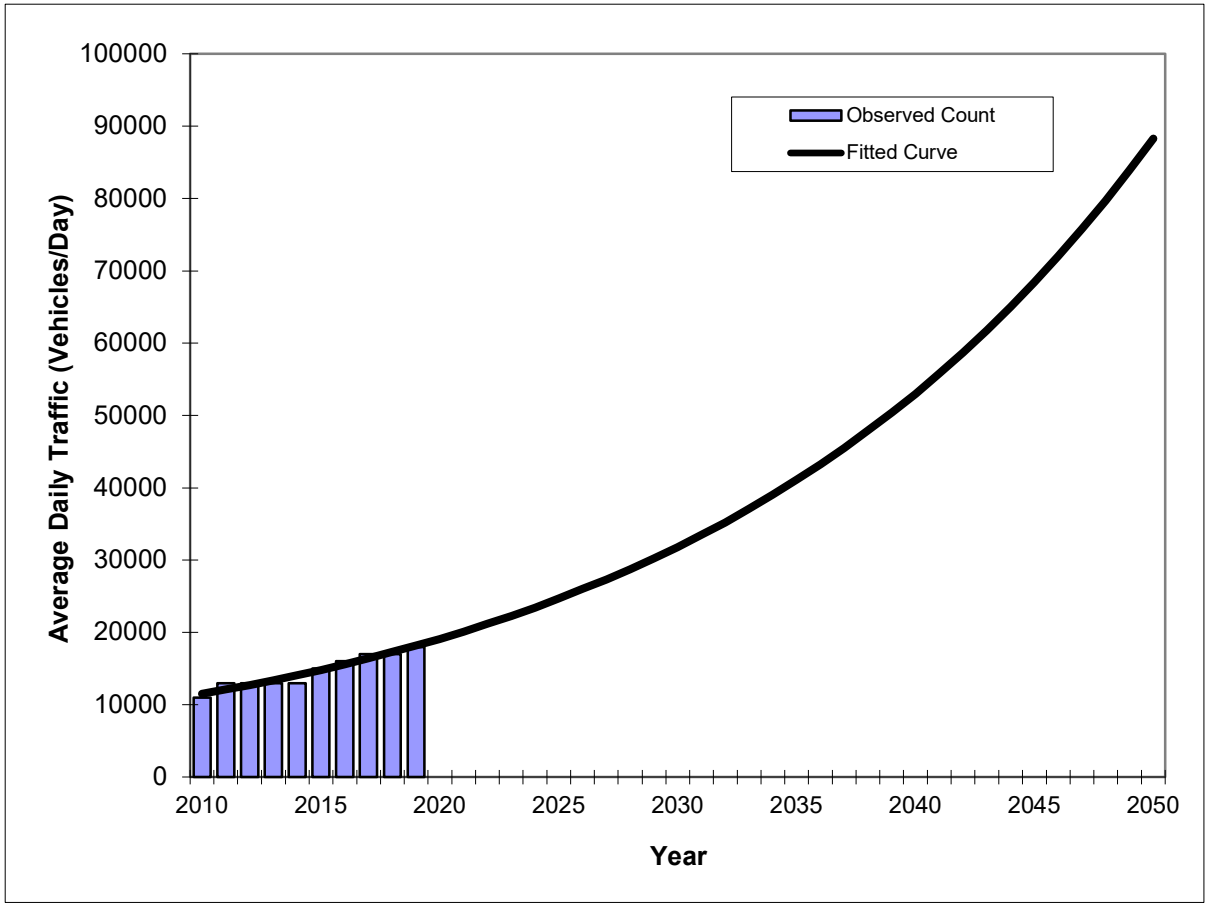
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- North of Pierce St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165263
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	11500
2011	13000	12100
2012	13000	12700
2013	13000	13400
2014	13000	14100
2015	15000	14800
2016	16000	15600
2017	17000	16400
2018	17000	17300
2019	18000	18200
2030 Opening Year Trend		
2030	N/A	31800
2040 Mid-Year Trend		
2040	N/A	53000
2050 Design Year Trend		
2050	N/A	88300
TRANPLAN Forecasts/Trends		

Trend R-squared:	92.55%
Compounded Annual Historic Growth Rate:	5.23%
Compounded Growth Rate (2019 to Design Year):	5.23%
Printed:	19-Sep-24

Exponential Growth Option

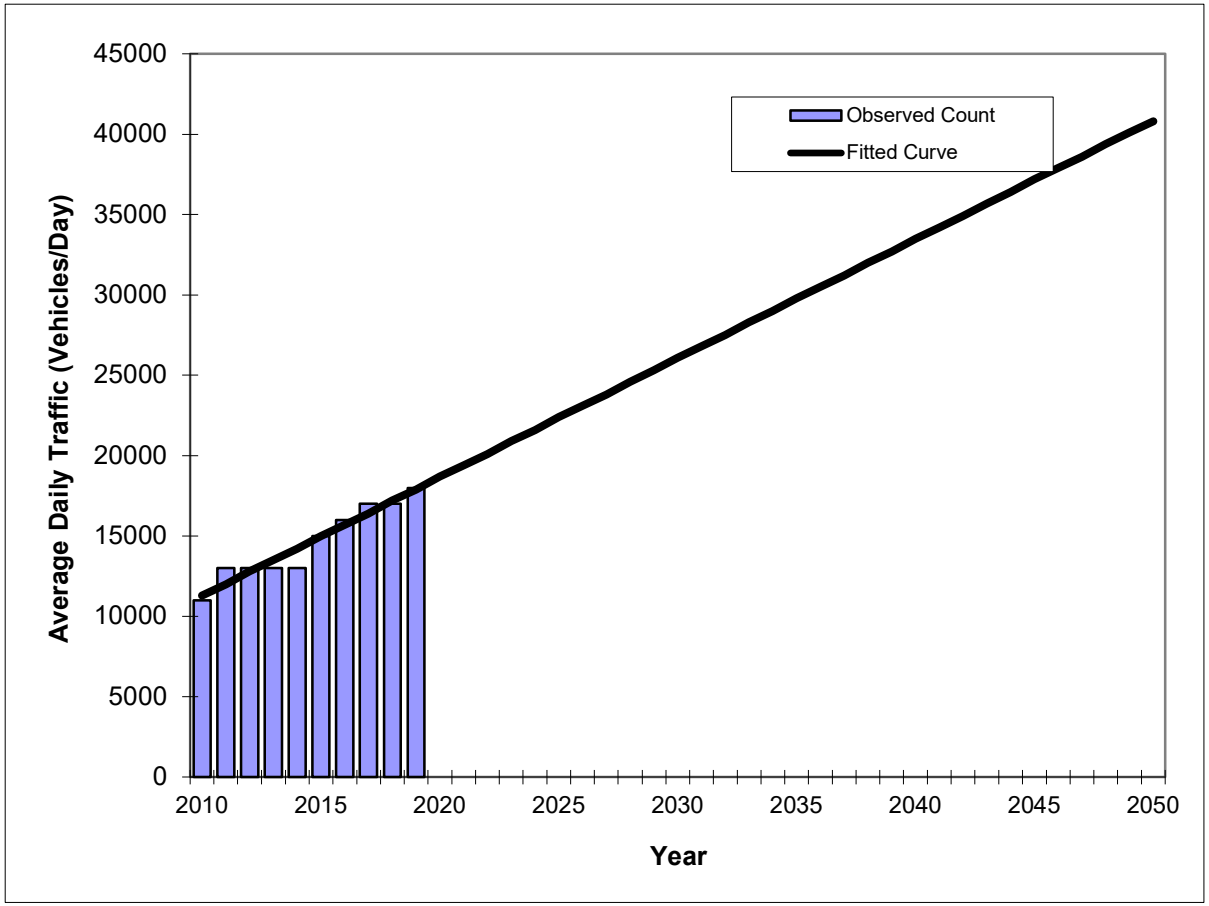
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- North of Pierce St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165263
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	11000	11300
2011	13000	12000
2012	13000	12800
2013	13000	13500
2014	13000	14200
2015	15000	15000
2016	16000	15700
2017	17000	16400
2018	17000	17200
2019	18000	17900
2030 Opening Year Trend		
2030	N/A	26100
2040 Mid-Year Trend		
2040	N/A	33500
2050 Design Year Trend		
2050	N/A	40800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	739
Trend R-squared:	93.19%
Trend Annual Historic Growth Rate:	6.49%
Trend Growth Rate (2019 to Design Year):	4.13%
Printed:	19-Sep-24

Straight Line Growth Option

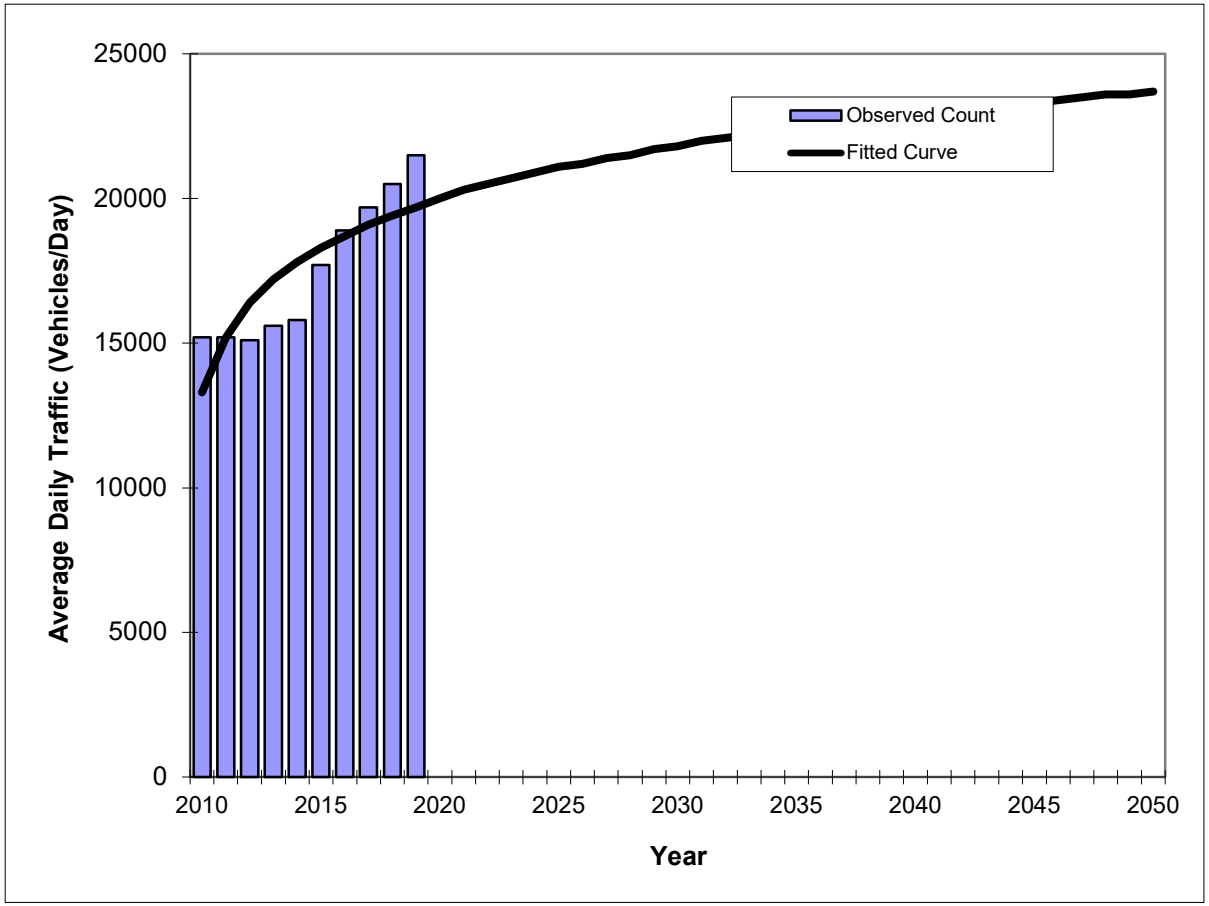
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- East of Experiment Station Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160010
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	15200	13300
2011	15200	15200
2012	15100	16400
2013	15600	17200
2014	15800	17800
2015	17700	18300
2016	18900	18700
2017	19700	19100
2018	20500	19400
2019	21500	19700
2030 Opening Year Trend		
2030	N/A	21800
2040 Mid-Year Trend		
2040	N/A	22900
2050 Design Year Trend		
2050	N/A	23700
TRANPLAN Forecasts/Trends		

Trend R-squared:	69.50%
Compounded Annual Historic Growth Rate:	4.46%
Compounded Growth Rate (2019 to Design Year):	0.60%
Printed:	19-Sep-24

Decaying Exponential Growth Option

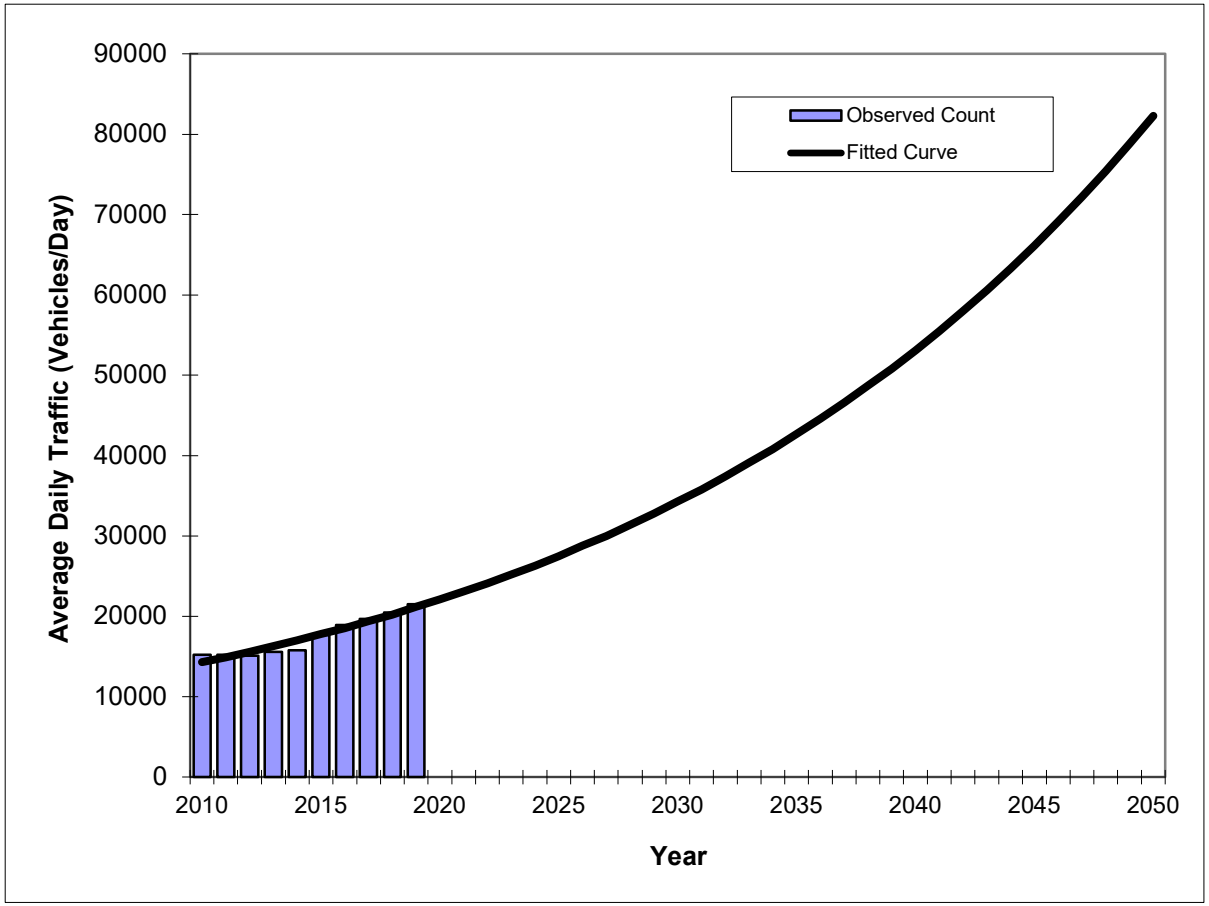
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- East of Experiment Station Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160010
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	15200	14300
2011	15200	14900
2012	15100	15600
2013	15600	16300
2014	15800	17000
2015	17700	17800
2016	18900	18500
2017	19700	19400
2018	20500	20200
2019	21500	21200
2030 Opening Year Trend		
2030	N/A	34300
2040 Mid-Year Trend		
2040	N/A	53100
2050 Design Year Trend		
2050	N/A	82300
TRANPLAN Forecasts/Trends		

Trend R-squared:	92.17%
Compounded Annual Historic Growth Rate:	4.47%
Compounded Growth Rate (2019 to Design Year):	4.47%
Printed:	19-Sep-24

Exponential Growth Option

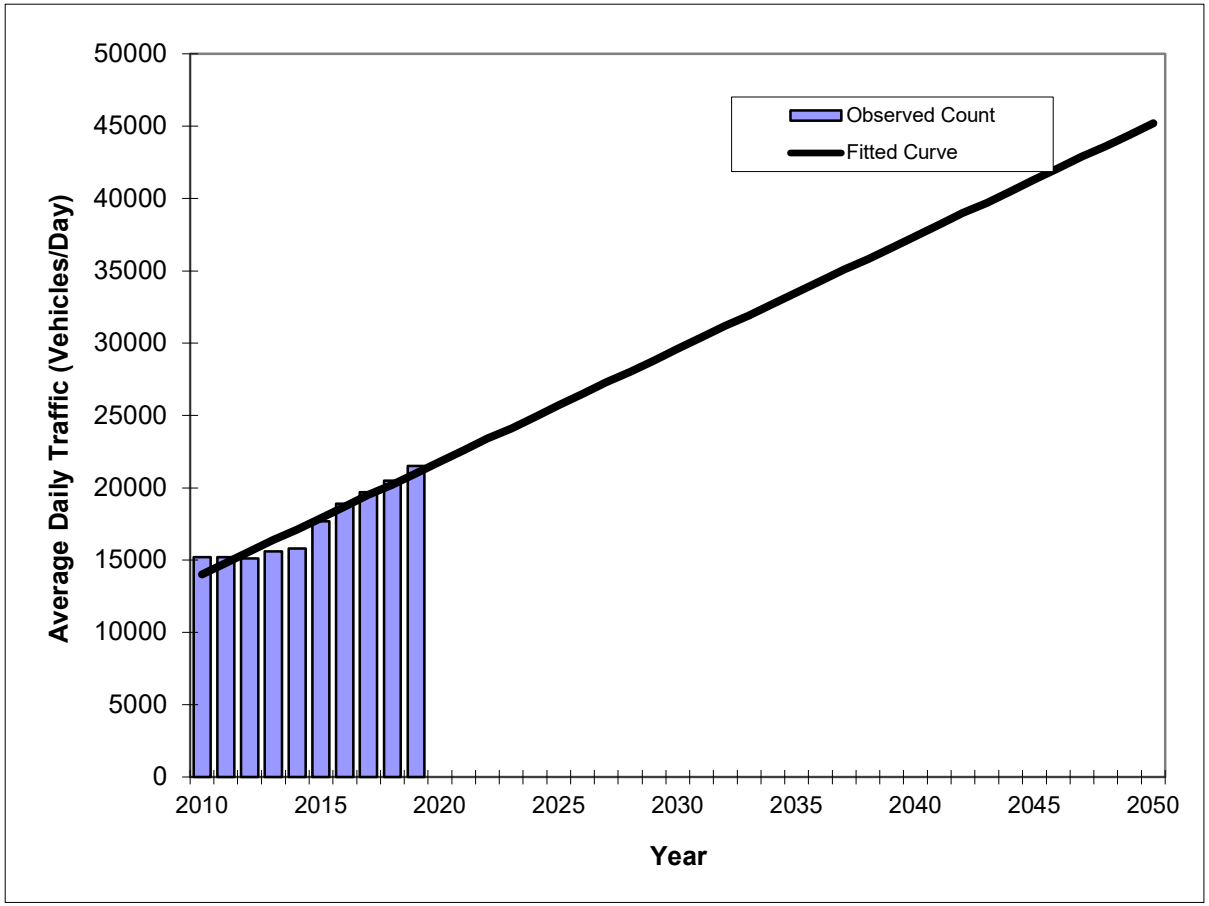
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- East of Experiment Station Rd

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160010
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	15200	14000
2011	15200	14800
2012	15100	15600
2013	15600	16400
2014	15800	17100
2015	17700	17900
2016	18900	18700
2017	19700	19500
2018	20500	20200
2019	21500	21000
2030 Opening Year Trend		
2030	N/A	29600
2040 Mid-Year Trend		
2040	N/A	37400
2050 Design Year Trend		
2050	N/A	45200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	779
Trend R-squared:	91.66%
Trend Annual Historic Growth Rate:	5.56%
Trend Growth Rate (2019 to Design Year):	3.72%
Printed:	19-Sep-24

Straight Line Growth Option

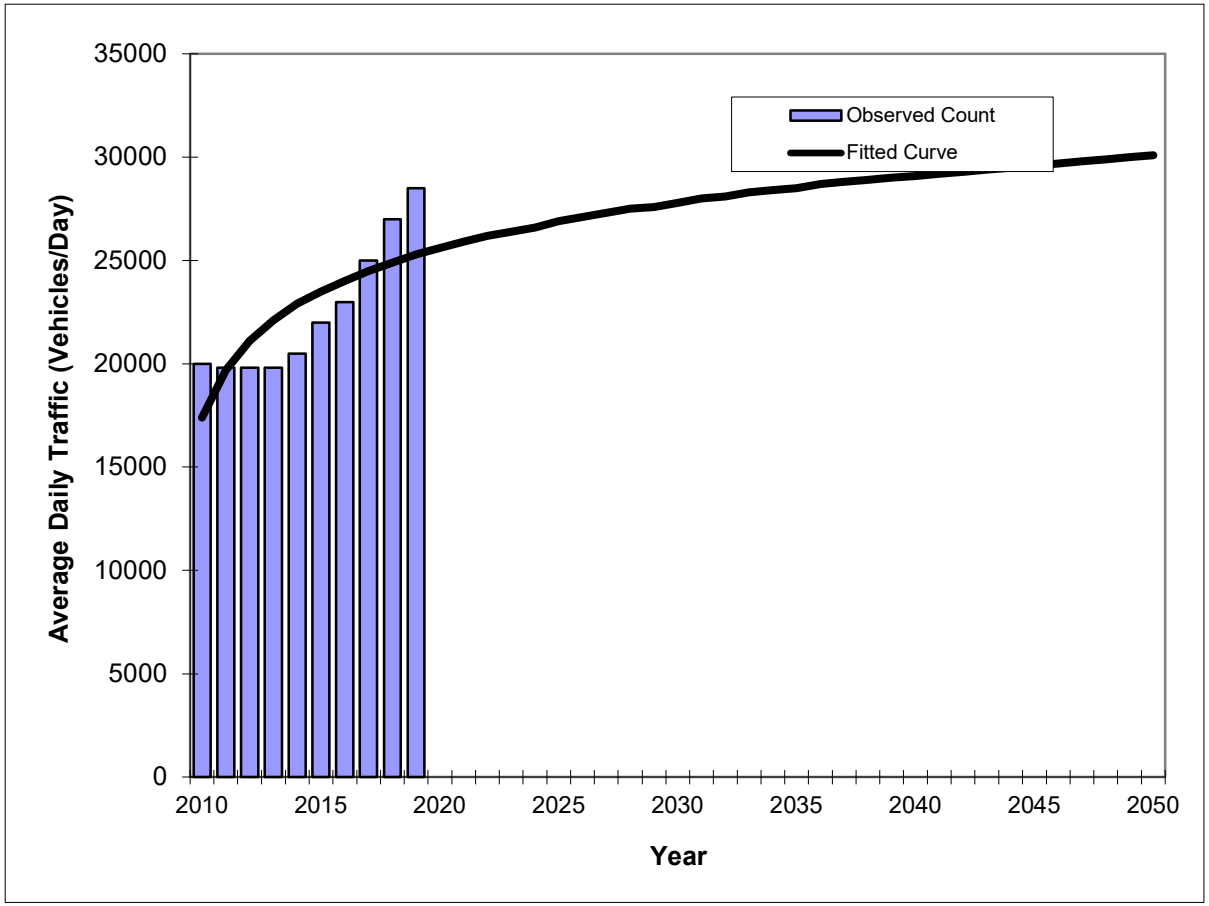
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- West of Kentucky Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160035
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	20000	17400
2011	19800	19700
2012	19800	21100
2013	19800	22100
2014	20500	22900
2015	22000	23500
2016	23000	24000
2017	25000	24500
2018	27000	24900
2019	28500	25300
2030 Opening Year Trend		
2030	N/A	27800
2040 Mid-Year Trend		
2040	N/A	29100
2050 Design Year Trend		
2050	N/A	30100
TRANPLAN Forecasts/Trends		

Trend R-squared:	59.73%
Compounded Annual Historic Growth Rate:	4.25%
Compounded Growth Rate (2019 to Design Year):	0.56%
Printed:	19-Sep-24

Decaying Exponential Growth Option

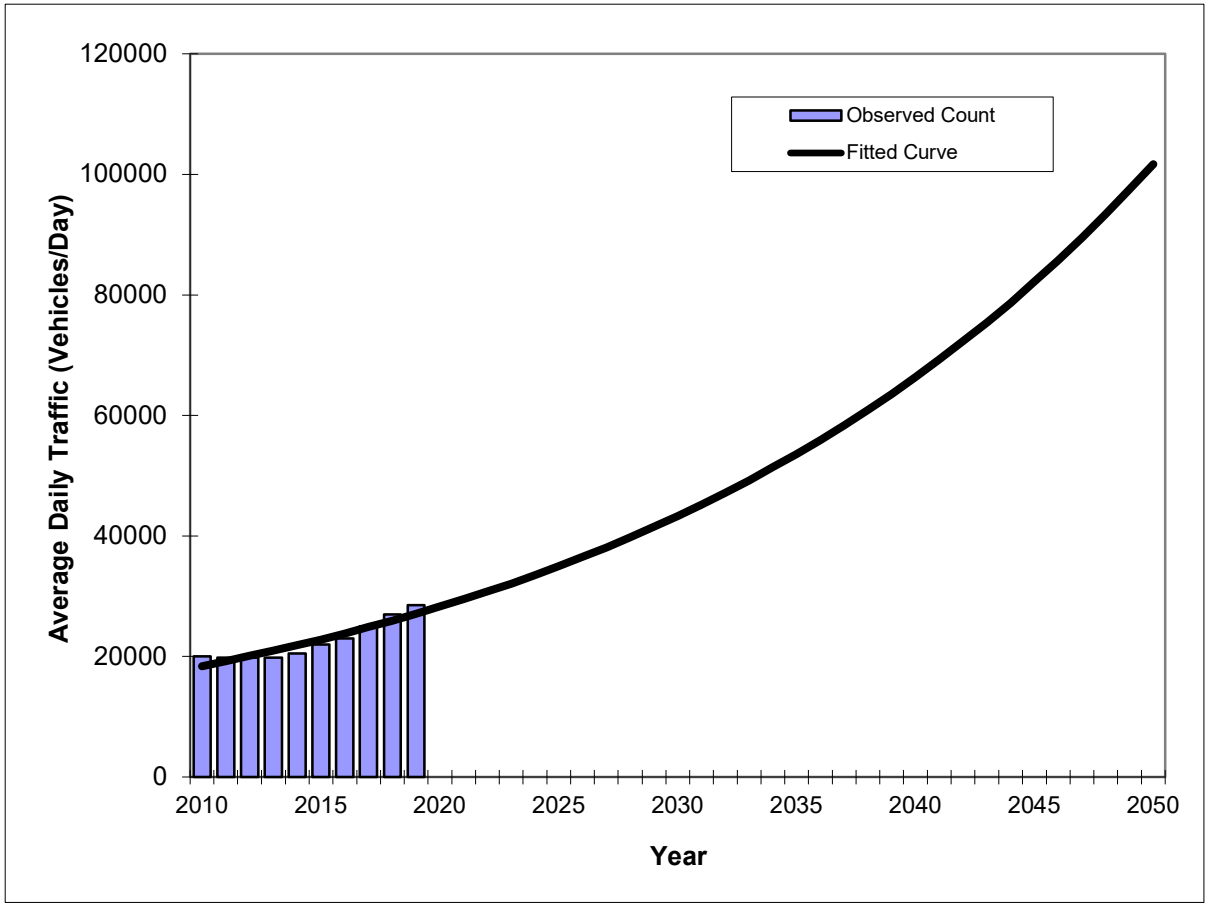
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- West of Kentucky Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160035
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	20000	18400
2011	19800	19200
2012	19800	20100
2013	19800	21000
2014	20500	21900
2015	22000	22800
2016	23000	23800
2017	25000	24900
2018	27000	25900
2019	28500	27100
2030 Opening Year Trend		
2030	N/A	43300
2040 Mid-Year Trend		
2040	N/A	66400
2050 Design Year Trend		
2050	N/A	101700
TRANPLAN Forecasts/Trends		

Trend R-squared:	87.30%
Compounded Annual Historic Growth Rate:	4.40%
Compounded Growth Rate (2019 to Design Year):	4.36%
Printed:	19-Sep-24

Exponential Growth Option

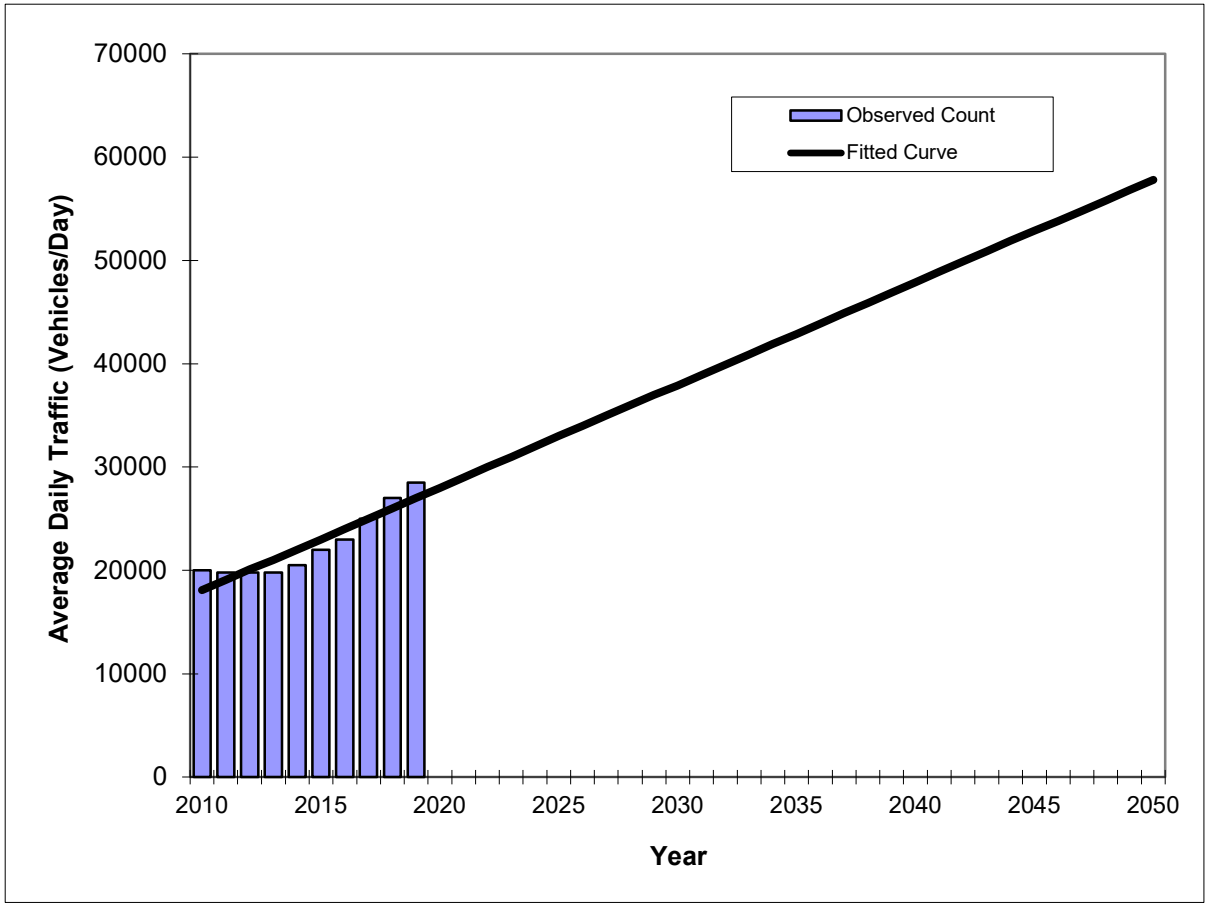
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- West of Kentucky Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	160035
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	20000	18100
2011	19800	19100
2012	19800	20100
2013	19800	21000
2014	20500	22000
2015	22000	23000
2016	23000	24000
2017	25000	25000
2018	27000	26000
2019	28500	27000
2030 Opening Year Trend		
2030	N/A	37900
2040 Mid-Year Trend		
2040	N/A	47900
2050 Design Year Trend		
2050	N/A	57800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

**** Annual Trend Increase:**	994
Trend R-squared:	85.70%
Trend Annual Historic Growth Rate:	5.46%
Trend Growth Rate (2019 to Design Year):	3.68%
Printed:	19-Sep-24

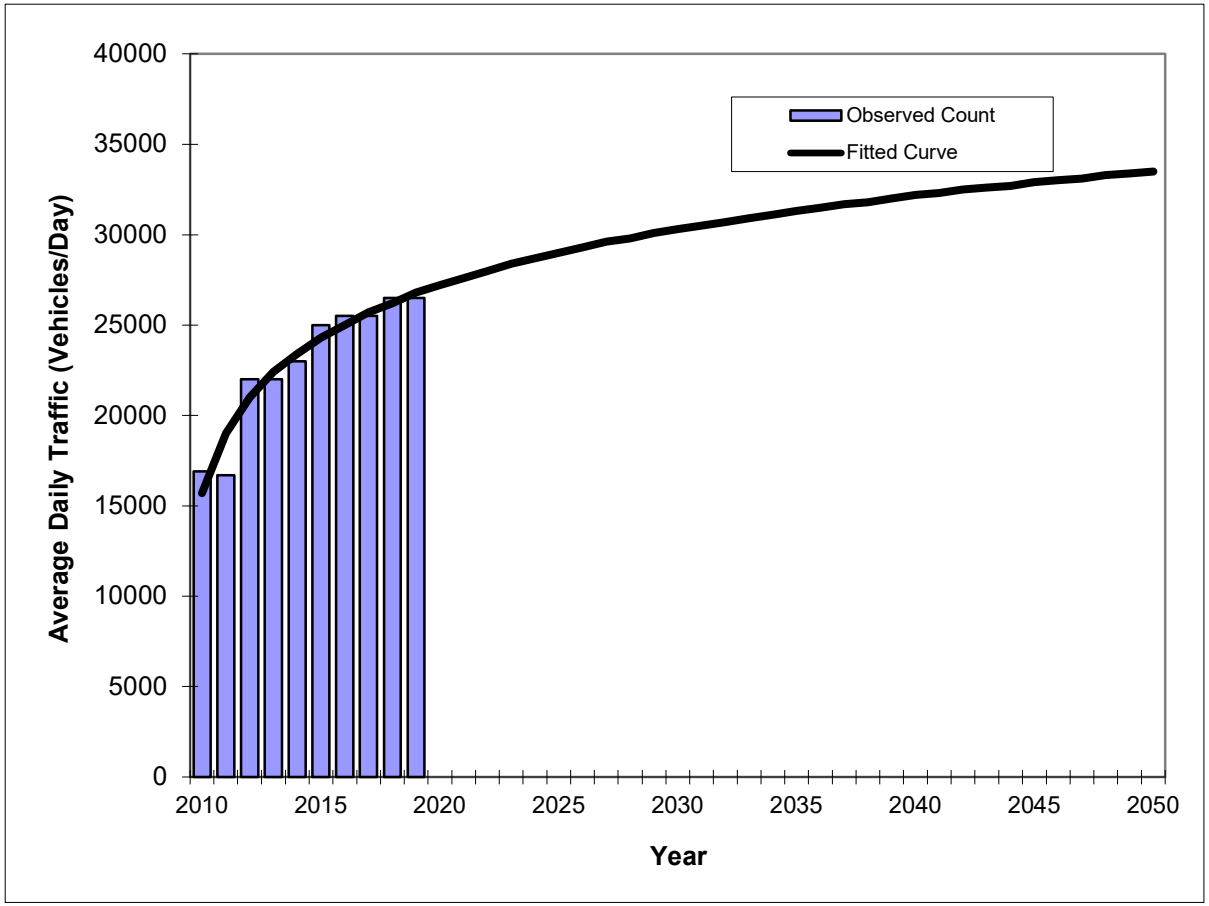
Straight Line Growth Option

Traffic Trends - V03.a

SR 600/US 17/92 -- West of 9th St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165056
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	16900	15700
2011	16700	19000
2012	22000	21000
2013	22000	22400
2014	23000	23400
2015	25000	24300
2016	25500	25000
2017	25500	25700
2018	26500	26200
2019	26500	26800
2030 Opening Year Trend		
2030	N/A	30300
2040 Mid-Year Trend		
2040	N/A	32200
2050 Design Year Trend		
2050	N/A	33500
TRANPLAN Forecasts/Trends		

Trend R-squared:	92.43%
Compounded Annual Historic Growth Rate:	6.12%
Compounded Growth Rate (2019 to Design Year):	0.72%
Printed:	19-Sep-24

Decaying Exponential Growth Option

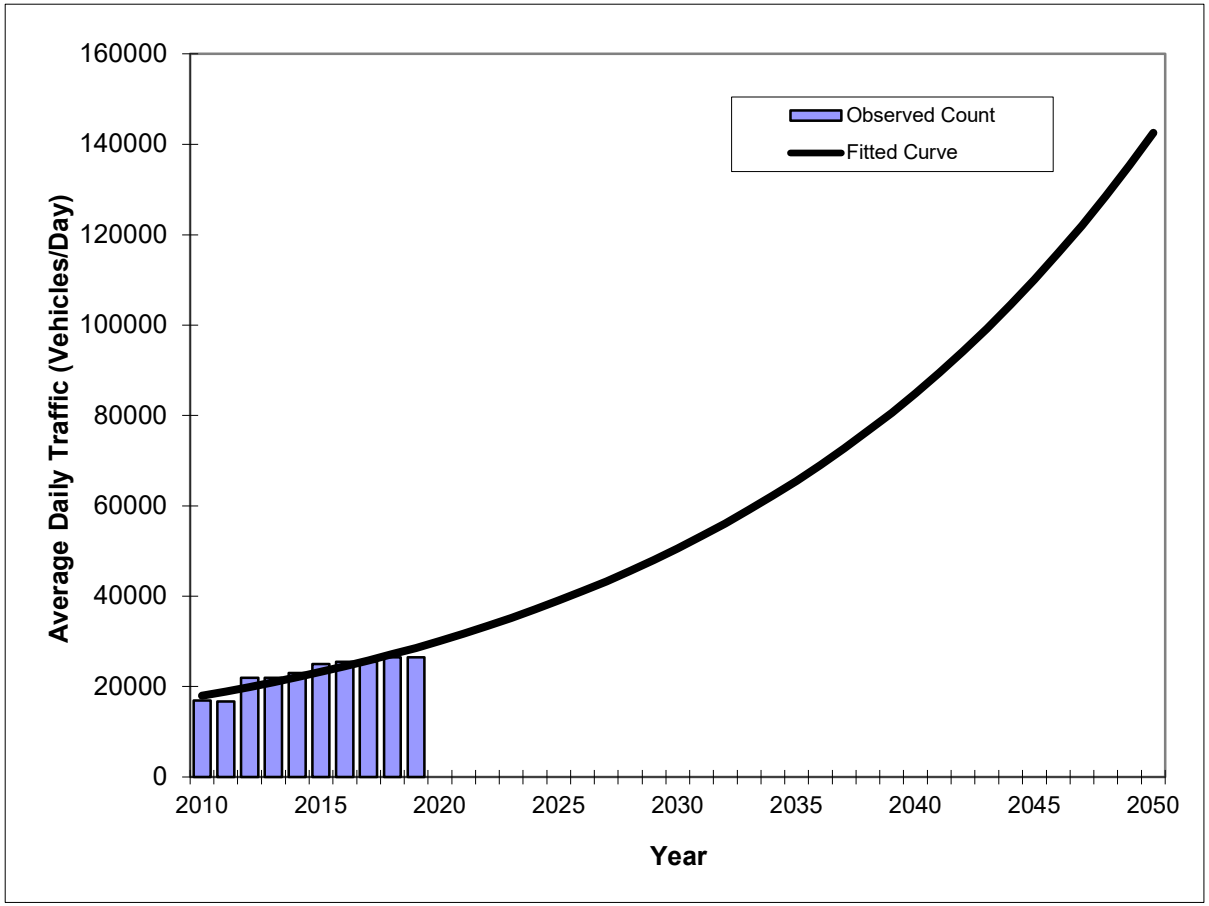
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- West of 9th St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165056
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	16900	18000
2011	16700	18900
2012	22000	19900
2013	22000	21000
2014	23000	22100
2015	25000	23300
2016	25500	24500
2017	25500	25800
2018	26500	27200
2019	26500	28600
2030 Opening Year Trend		
2030	N/A	50600
2040 Mid-Year Trend		
2040	N/A	84900
2050 Design Year Trend		
2050	N/A	142500
TRANPLAN Forecasts/Trends		

Trend R-squared:	82.66%
Compounded Annual Historic Growth Rate:	5.28%
Compounded Growth Rate (2019 to Design Year):	5.32%
Printed:	19-Sep-24

Exponential Growth Option

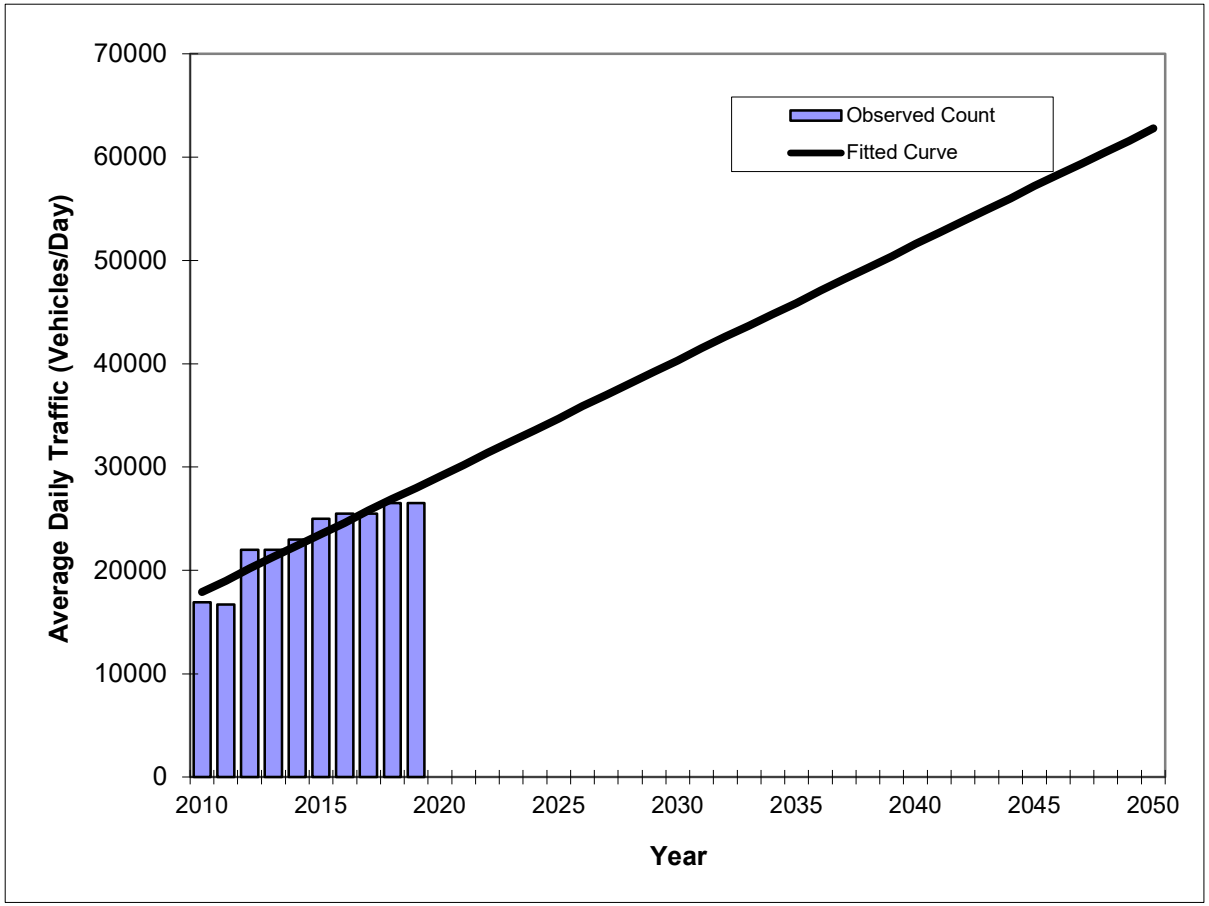
***Axle-Adjusted**

Traffic Trends - V03.a

SR 600/US 17/92 -- West of 9th St

FIN#	1234
Location	1

County:	Polk (16)
Station #:	165056
Highway:	SR 600/US 17/92



Year	Traffic (ADT/AADT) Count*	Trend**
2010	16900	17900
2011	16700	19000
2012	22000	20200
2013	22000	21300
2014	23000	22400
2015	25000	23500
2016	25500	24600
2017	25500	25800
2018	26500	26900
2019	26500	28000
2030 Opening Year Trend		
2030	N/A	40300
2040 Mid-Year Trend		
2040	N/A	51600
2050 Design Year Trend		
2050	N/A	62800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	1,121
Trend R-squared:	86.51%
Trend Annual Historic Growth Rate:	6.27%
Trend Growth Rate (2019 to Design Year):	4.01%
Printed:	19-Sep-24

Straight Line Growth Option

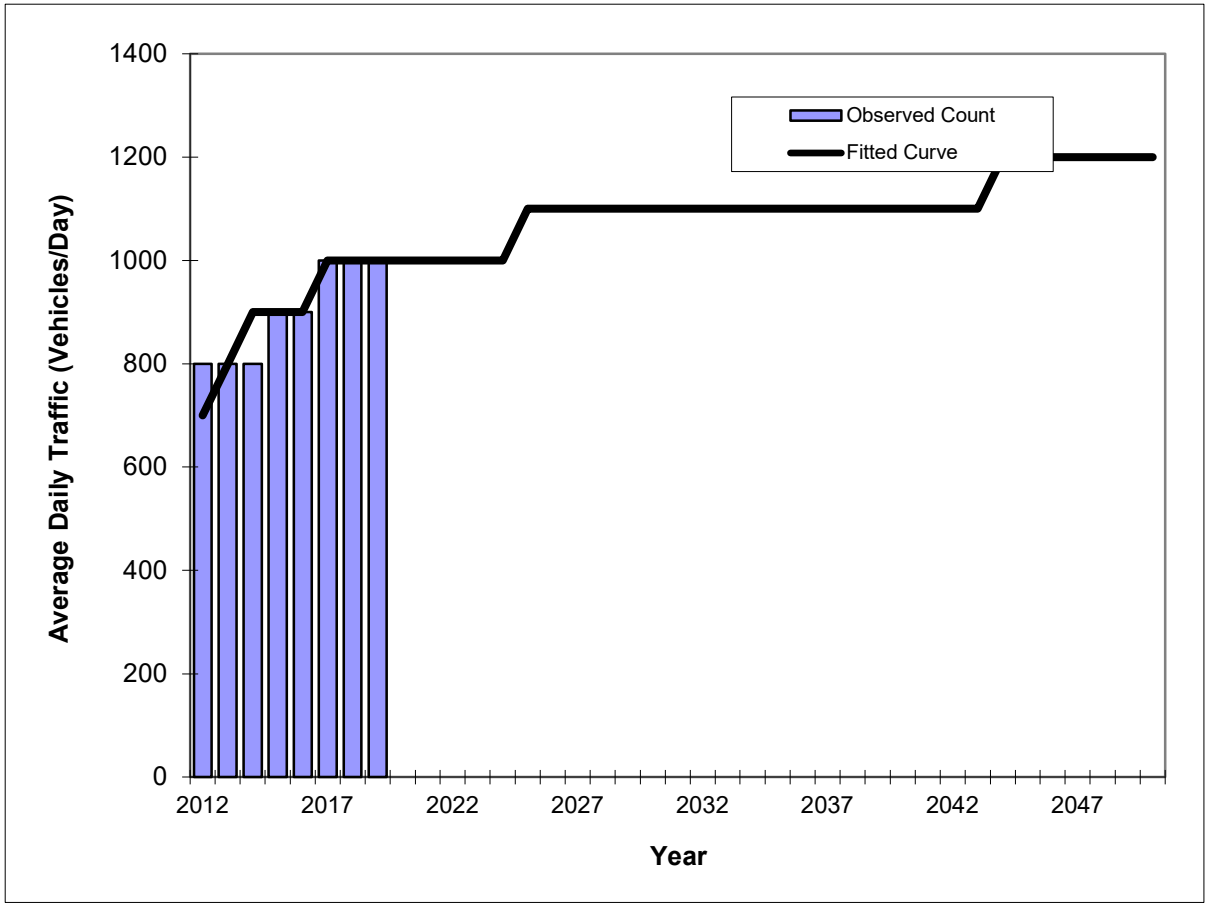
***Axle-Adjusted**

Traffic Trends - V03.a

5TH ST -- North of Hinson Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164932
Highway:	5TH ST



Year	Traffic (ADT/AADT) Count*	Trend**
2012	800	700
2013	800	800
2014	800	900
2015	900	900
2016	900	900
2017	1000	1000
2018	1000	1000
2019	1000	1000
2030 Opening Year Trend		
2030	N/A	1100
2040 Mid-Year Trend		
2040	N/A	1100
2050 Design Year Trend		
2050	N/A	1200
TRANPLAN Forecasts/Trends		

Trend R-squared:	77.98%
Compounded Annual Historic Growth Rate:	5.23%
Compounded Growth Rate (2019 to Design Year):	0.59%
Printed:	19-Sep-24

Decaying Exponential Growth Option

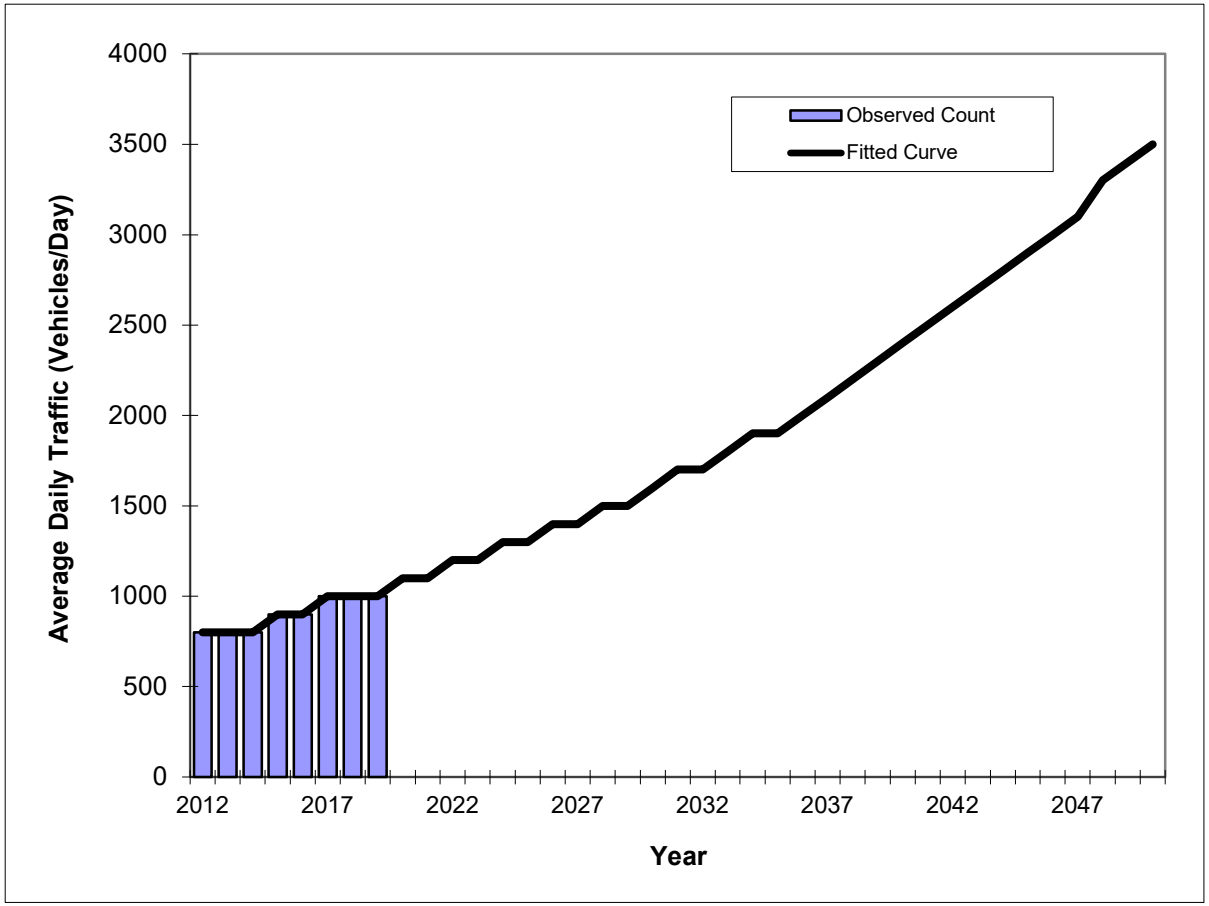
***Axle-Adjusted**

Traffic Trends - V03.a

5TH ST -- North of Hinson Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164932
Highway:	5TH ST



Year	Traffic (ADT/AADT) Count*	Trend**
2012	800	800
2013	800	800
2014	800	800
2015	900	900
2016	900	900
2017	1000	1000
2018	1000	1000
2019	1000	1000
2030 Opening Year Trend		
2030	N/A	1600
2040 Mid-Year Trend		
2040	N/A	2400
2050 Design Year Trend		
2050	N/A	3500
TRANPLAN Forecasts/Trends		

Trend R-squared:	89.22%
Compounded Annual Historic Growth Rate:	3.24%
Compounded Growth Rate (2019 to Design Year):	4.12%
Printed:	19-Sep-24

Exponential Growth Option

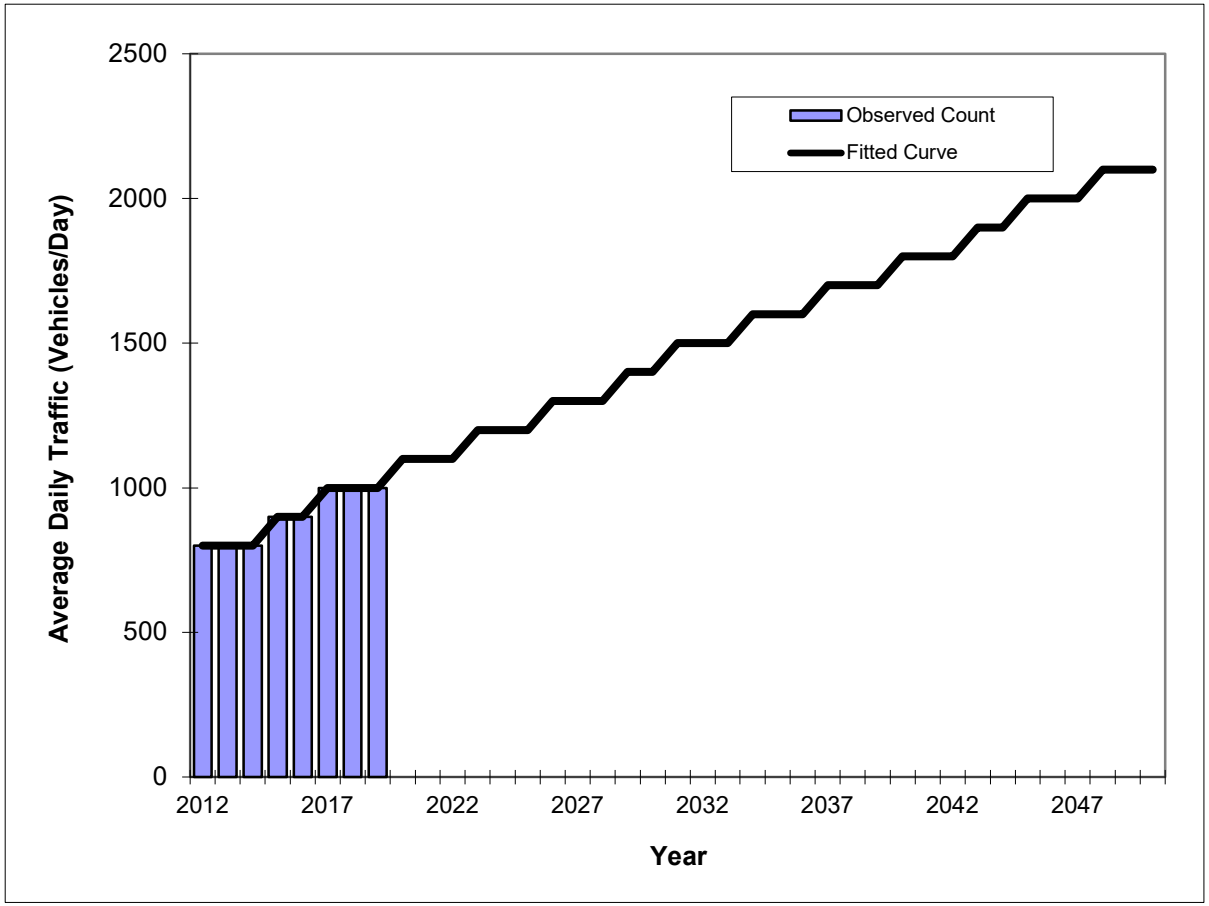
***Axle-Adjusted**

Traffic Trends - V03.a

5TH ST -- North of Hinson Ave

FIN#	1234
Location	1

County:	Polk (16)
Station #:	164932
Highway:	5TH ST



Year	Traffic (ADT/AADT) Count*	Trend**
2012	800	800
2013	800	800
2014	800	800
2015	900	900
2016	900	900
2017	1000	1000
2018	1000	1000
2019	1000	1000
2030 Opening Year Trend		
2030	N/A	1400
2040 Mid-Year Trend		
2040	N/A	1800
2050 Design Year Trend		
2050	N/A	2100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	36
Trend R-squared:	89.29%
Trend Annual Historic Growth Rate:	3.57%
Trend Growth Rate (2019 to Design Year):	3.55%
Printed:	19-Sep-24

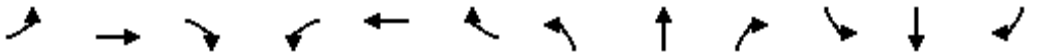
Straight Line Growth Option

***Axle-Adjusted**

APPENDIX I

Opening Year (2030)

Synchro Reports



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Future Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1731	1509	1671	1788		1770	3336		1770	3366	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.08	1.00		0.32	1.00	
Satd. Flow (perm)	1665	1731	1509	1671	1788		147	3336		593	3366	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	102	129	348	113	190	49	320	518	135	130	990	427
RTOR Reduction (vph)	0	0	302	0	6	0	0	11	0	0	22	0
Lane Group Flow (vph)	92	139	46	113	233	0	320	642	0	130	1395	0
Heavy Vehicles (%)	3%	4%	7%	8%	3%	3%	2%	3%	12%	2%	3%	1%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	16.3	16.3	16.3	21.7	21.7		59.3	50.7		59.5	50.8	
Effective Green, g (s)	16.3	16.3	16.3	21.7	21.7		59.3	50.7		59.5	50.8	
Actuated g/C Ratio	0.13	0.13	0.13	0.17	0.17		0.48	0.41		0.48	0.41	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	226	197	291	311		182	1358		365	1373	
v/s Ratio Prot	0.06	c0.08		0.07	c0.13		c0.12	0.19		0.02	0.41	
v/s Ratio Perm			0.03				c0.72			0.15		
v/c Ratio	0.42	0.62	0.23	0.39	0.75		1.76	0.47		0.36	1.02	
Uniform Delay, d1	49.8	51.1	48.5	45.5	48.8		34.2	27.1		18.9	36.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.3	4.9	0.6	0.9	9.5		362.8	0.3		0.6	28.4	
Delay (s)	51.1	56.0	49.1	46.4	58.4		397.0	27.4		19.5	65.2	
Level of Service	D	E	D	D	E		F	C		B	E	
Approach Delay (s)		51.1			54.5			148.9			61.4	
Approach LOS		D			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	83.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	124.5	Sum of lost time (s)	27.1
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	292	15	38	144	9	18
Future Volume (Veh/h)	292	15	38	144	9	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	517	27	67	255	16	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			544		920	530
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			544		920	530
tC, single (s)			4.1		6.5	6.4
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.5
p0 queue free %			93		94	94
cM capacity (veh/h)			1020		273	518

Direction, Lane #	EB 1	WB 1	WB 2	NE 1
Volume Total	544	67	255	48
Volume Left	0	67	0	16
Volume Right	27	0	0	32
cSH	1700	1020	1700	399
Volume to Capacity	0.32	0.07	0.15	0.12
Queue Length 95th (ft)	0	5	0	10
Control Delay (s)	0.0	8.8	0.0	15.3
Lane LOS		A		C
Approach Delay (s)	0.0	1.8		15.3
Approach LOS				C

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

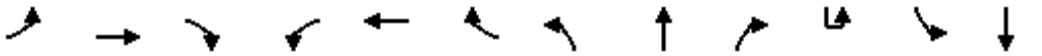
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Future Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		0.95
Frt		1.00	0.99			1.00	0.99		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1657	4775			1688	4961		1770	1684		1649
Flt Permitted		0.11	1.00			0.11	1.00		0.95	1.00		0.95
Satd. Flow (perm)		196	4775			200	4961		1770	1684		1649
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	1	175	1473	62	1	107	1635	82	230	240	56	138
RTOR Reduction (vph)	0	0	3	0	0	0	3	0	0	5	0	0
Lane Group Flow (vph)	0	176	1532	0	0	108	1714	0	230	291	0	124
Heavy Vehicles (%)	0%	9%	7%	31%	0%	7%	4%	0%	2%	7%	21%	4%
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split
Protected Phases	1	1	6		5	5	2		4	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		40.7	35.6			40.7	35.6		30.2	30.2		27.2
Effective Green, g (s)		40.7	35.6			40.7	35.6		30.2	30.2		27.2
Actuated g/C Ratio		0.32	0.28			0.32	0.28		0.24	0.24		0.22
Clearance Time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Vehicle Extension (s)		3.0	5.0			3.0	5.0		5.0	5.0		5.0
Lane Grp Cap (vph)		122	1346			124	1399		423	402		355
v/s Ratio Prot		c0.06	0.32			0.04	0.35		0.13	c0.17		0.08
v/s Ratio Perm		c0.41				0.24						
v/c Ratio		1.44	1.14			0.87	1.23		0.54	0.72		0.35
Uniform Delay, d1		41.3	45.3			38.1	45.3		42.0	44.2		42.0
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		239.2	71.8			44.1	107.9		2.5	7.7		1.2
Delay (s)		280.5	117.1			82.2	153.2		44.5	51.9		43.2
Level of Service		F	F			F	F		D	D		D
Approach Delay (s)			133.9				149.0			48.6		
Approach LOS			F				F			D		

Intersection Summary			
HCM 2000 Control Delay	120.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	126.2	Sum of lost time (s)	28.1
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	98
Future Volume (vph)	156	98
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	6.3	6.3
Lane Util. Factor	0.95	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1700	1538
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1700	1538
Peak-hour factor, PHF	0.93	0.93
Growth Factor (vph)	138%	138%
Adj. Flow (vph)	231	145
RTOR Reduction (vph)	0	107
Lane Group Flow (vph)	245	38
Heavy Vehicles (%)	6%	5%
Turn Type	NA	Perm
Protected Phases	3	
Permitted Phases		3
Actuated Green, G (s)	27.2	27.2
Effective Green, g (s)	27.2	27.2
Actuated g/C Ratio	0.22	0.22
Clearance Time (s)	6.3	6.3
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	366	331
v/s Ratio Prot	c0.14	
v/s Ratio Perm		0.02
v/c Ratio	0.67	0.12
Uniform Delay, d1	45.4	39.8
Progression Factor	1.00	1.00
Incremental Delay, d2	6.0	0.3
Delay (s)	51.4	40.2
Level of Service	D	D
Approach Delay (s)	46.3	
Approach LOS	D	

Intersection Summary



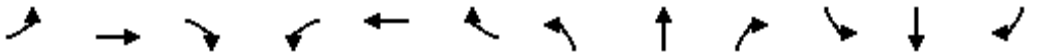
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Future Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91			0.91	0.91
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99			1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1736	3343	1583	1752	3345		1610	3197			1626	3239
Flt Permitted	0.11	1.00	1.00	0.11	1.00		0.95	1.00			0.95	1.00
Satd. Flow (perm)	197	3343	1583	204	3345		1610	3197			1626	3239
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	237	1025	719	232	877	281	472	676	50	2	435	1027
RTOR Reduction (vph)	0	0	42	0	21	0	0	3	0	0	0	3
Lane Group Flow (vph)	237	1025	677	232	1137	0	392	803	0	0	393	1139
Heavy Vehicles (%)	4%	8%	2%	3%	4%	4%	2%	7%	9%	0%	1%	6%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	Split	NA
Protected Phases	5	2	8	1	6		8	8		4	4	4
Permitted Phases	2		2	6								
Actuated Green, G (s)	42.8	37.1	68.2	41.2	36.2		31.1	31.1			44.0	44.0
Effective Green, g (s)	42.8	37.1	68.2	41.2	36.2		31.1	31.1			44.0	44.0
Actuated g/C Ratio	0.30	0.26	0.47	0.28	0.25		0.21	0.21			0.30	0.30
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0			6.0	6.0
Lane Grp Cap (vph)	118	855	744	111	835		345	685			493	982
v/s Ratio Prot	c0.08	0.31	0.19	0.07	0.34		0.24	c0.25			0.24	c0.35
v/s Ratio Perm	0.51		0.23	c0.52								
v/c Ratio	2.01	1.20	0.91	2.09	1.36		1.14	1.17			0.80	1.16
Uniform Delay, d1	48.5	54.0	35.5	50.5	54.4		57.0	57.0			46.4	50.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	482.4	100.7	16.3	519.9	170.5		90.7	92.4			10.5	83.2
Delay (s)	530.9	154.7	51.9	570.4	224.9		147.7	149.4			56.9	133.7
Level of Service	F	F	D	F	F		F	F			E	F
Approach Delay (s)		162.4			282.6			148.8				114.1
Approach LOS		F			F			F				F

Intersection Summary			
HCM 2000 Control Delay	174.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.49		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	47
Future Volume (vph)	47
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Growth Factor (vph)	138%
Adj. Flow (vph)	71
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

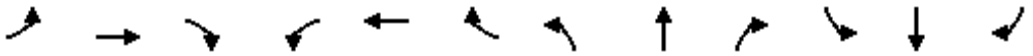
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Future Volume (Veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	172	23	71	58	0	0	0	0	25	2248	25
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	2340	2310	762	908	2323	0	2273			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1662	1624	0	0	1640	0	1575			0		
tC, single (s)	7.5	6.6	6.9	7.6	6.6	6.9	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.3		
p0 queue free %	100	0	97	0	20	100	100			98		
cM capacity (veh/h)	16	75	830	0	72	1084	315			1545		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	172	23	129	587	1124	587
Volume Left	0	0	71	25	0	0
Volume Right	0	23	0	0	0	25
cSH	75	830	0	1545	1700	1700
Volume to Capacity	2.28	0.03	Err	0.02	0.66	0.35
Queue Length 95th (ft)	402	2	Err	1	0	0
Control Delay (s)	705.8	9.5	Err	0.5	0.0	0.0
Lane LOS	F	A	F	A		
Approach Delay (s)	623.7		Err	0.1		
Approach LOS	F		F			

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	64.4%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Future Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1681	1495		1792						4906	
Flt Permitted		1.00	1.00		1.00						1.00	
Satd. Flow (perm)		1681	1495		1792						4906	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	0	156	1216	3	908	0	0	0	0	8	1359	91
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	156	1205	0	911	0	0	0	0	0	1453	0
Heavy Vehicles (%)	2%	13%	8%	2%	6%	2%	2%	2%	2%	20%	4%	14%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		90.5	90.5		90.5						35.0	
Effective Green, g (s)		90.5	90.5		90.5						35.0	
Actuated g/C Ratio		0.65	0.65		0.65						0.25	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		1086	966		1158						1226	
v/s Ratio Prot		0.09										
v/s Ratio Perm			c0.81		0.51						0.30	
v/c Ratio		0.14	1.25		0.79						1.18	
Uniform Delay, d1		9.6	24.8		17.8						52.5	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		0.3	120.1		5.4						91.8	
Delay (s)		9.9	144.8		23.2						144.3	
Level of Service		A	F		C						F	
Approach Delay (s)		129.5			23.2			0.0			144.3	
Approach LOS		F			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	109.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	156.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

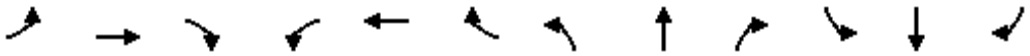
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Future Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Lane Util. Factor	0.97	1.00	1.00		1.00	1.00	1.00		1.00	0.91	1.00	
Frt	1.00	1.00	0.85		1.00	1.00	0.85		1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	3303	1743	1509		1720	1845	1380		1756	4848	1524	
Flt Permitted	0.31	1.00	1.00		0.37	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	1087	1743	1509		671	1845	1380		1756	4848	1524	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	759	239	236	1	163	298	159	18	269	1765	117	12
RTOR Reduction (vph)	0	0	157	0	0	0	125	0	0	0	70	0
Lane Group Flow (vph)	759	239	79	0	164	298	34	0	287	1765	47	0
Heavy Vehicles (%)	6%	9%	7%	0%	5%	3%	17%	0%	3%	7%	6%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases	8		8	4	4		4				6	
Actuated Green, G (s)	30.1	23.0	23.0		33.3	24.6	24.6		16.0	48.2	48.2	
Effective Green, g (s)	30.1	23.0	23.0		33.3	24.6	24.6		16.0	48.2	48.2	
Actuated g/C Ratio	0.25	0.19	0.19		0.28	0.20	0.20		0.13	0.40	0.40	
Clearance Time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0		3.0	5.0	5.0	
Lane Grp Cap (vph)	401	332	287		260	376	281		232	1935	608	
v/s Ratio Prot	c0.11	0.14			0.05	0.16			c0.16	c0.36		
v/s Ratio Perm	c0.36		0.05		0.13		0.02				0.03	
v/c Ratio	1.89	0.72	0.28		0.63	0.79	0.12		1.24	0.91	0.08	
Uniform Delay, d1	44.3	45.8	41.7		35.9	45.6	39.2		52.4	34.2	22.5	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	411.0	7.3	0.5		4.9	10.9	0.2		138.0	7.4	0.1	
Delay (s)	455.3	53.1	42.3		40.8	56.5	39.4		190.3	41.7	22.6	
Level of Service	F	D	D		D	E	D		F	D	C	
Approach Delay (s)		298.4				48.0				60.3		
Approach LOS		F				D				E		

Intersection Summary			
HCM 2000 Control Delay	109.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.39		
Actuated Cycle Length (s)	120.7	Sum of lost time (s)	30.8
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	98	998	547
Future Volume (vph)	98	998	547
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	9.0	8.0	8.0
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1489	4715	1495
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1489	4715	1495
Peak-hour factor, PHF	0.94	0.94	0.94
Growth Factor (vph)	138%	138%	138%
Adj. Flow (vph)	144	1465	803
RTOR Reduction (vph)	0	0	248
Lane Group Flow (vph)	156	1465	555
Heavy Vehicles (%)	23%	10%	8%
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Actuated Green, G (s)	10.0	42.2	42.2
Effective Green, g (s)	10.0	42.2	42.2
Actuated g/C Ratio	0.08	0.35	0.35
Clearance Time (s)	9.0	8.0	8.0
Vehicle Extension (s)	3.0	5.0	5.0
Lane Grp Cap (vph)	123	1648	522
v/s Ratio Prot	0.10	0.31	
v/s Ratio Perm			c0.37
v/c Ratio	1.27	0.89	1.06
Uniform Delay, d1	55.4	37.0	39.2
Progression Factor	1.00	1.00	1.00
Incremental Delay, d2	169.9	6.7	57.0
Delay (s)	225.2	43.8	96.2
Level of Service	F	D	F
Approach Delay (s)		72.8	
Approach LOS		E	

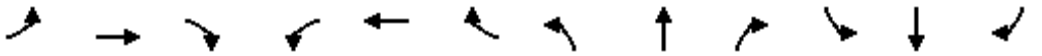
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Future Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1681	1482	1703	1820		1736	1726		1752	1758	
Flt Permitted	0.09	1.00	1.00	0.17	1.00		0.18	1.00		0.19	1.00	
Satd. Flow (perm)	167	1681	1482	311	1820		334	1726		345	1758	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	49	602	118	221	768	13	245	270	183	93	246	83
RTOR Reduction (vph)	0	0	68	0	1	0	0	19	0	0	9	0
Lane Group Flow (vph)	49	602	50	221	780	0	245	434	0	93	320	0
Heavy Vehicles (%)	6%	13%	9%	6%	4%	13%	4%	1%	7%	3%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	59.5	55.4	55.4	70.3	60.8		47.0	36.2		33.4	28.0	
Effective Green, g (s)	59.5	55.4	55.4	70.3	60.8		47.0	36.2		33.4	28.0	
Actuated g/C Ratio	0.46	0.43	0.43	0.54	0.47		0.36	0.28		0.26	0.22	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	124	716	631	269	851		263	480		147	378	
v/s Ratio Prot	0.01	0.36		c0.06	c0.43		c0.09	0.25		0.03	0.18	
v/s Ratio Perm	0.17		0.03	0.38			c0.24			0.14		
v/c Ratio	0.40	0.84	0.08	0.82	0.92		0.93	0.90		0.63	0.85	
Uniform Delay, d1	26.8	33.4	22.2	23.0	32.3		34.1	45.2		39.3	48.9	
Progression Factor	1.00	1.00	1.00	1.17	0.65		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.1	11.4	0.2	11.7	11.1		37.4	23.1		8.6	20.2	
Delay (s)	28.9	44.8	22.4	38.6	32.0		71.5	68.4		47.8	69.1	
Level of Service	C	D	C	D	C		E	E		D	E	
Approach Delay (s)		40.4			33.5			69.5			64.4	
Approach LOS		D			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	48.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		

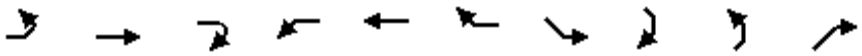
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Future Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1803		1805	1756			1638		1597	1900	1509
Flt Permitted	0.13	1.00		0.57	1.00			0.87		0.79	1.00	1.00
Satd. Flow (perm)	230	1803		1089	1756			1456		1327	1900	1509
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	539	297	10	10	509	166	22	31	4	105	30	481
RTOR Reduction (vph)	0	1	0	0	8	0	0	3	0	0	0	418
Lane Group Flow (vph)	539	306	0	10	667	0	0	54	0	105	30	63
Heavy Vehicles (%)	6%	5%	0%	0%	3%	8%	20%	5%	33%	13%	0%	7%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	99.7	99.7		57.1	57.1			17.0		16.9	16.9	16.9
Effective Green, g (s)	99.7	99.7		57.1	57.1			17.0		16.9	16.9	16.9
Actuated g/C Ratio	0.77	0.77		0.44	0.44			0.13		0.13	0.13	0.13
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	583	1382		478	771			190		172	247	196
v/s Ratio Prot	c0.26	0.17			0.38						0.02	
v/s Ratio Perm	c0.45			0.01				0.04		c0.08		0.04
v/c Ratio	0.92	0.22		0.02	0.87			0.29		0.61	0.12	0.32
Uniform Delay, d1	33.6	4.3		20.6	33.0			51.0		53.4	50.0	51.3
Progression Factor	0.50	0.29		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	12.6	0.2		0.1	12.4			0.8		6.3	0.2	0.9
Delay (s)	29.5	1.4		20.7	45.4			51.9		59.7	50.2	52.3
Level of Service	C	A		C	D			D		E	D	D
Approach Delay (s)		19.3			45.1			51.9			53.4	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		

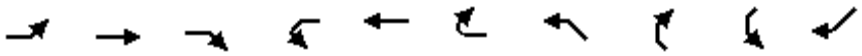
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	734	0	0	852	195	0	0	0	127
Future Volume (Veh/h)	0	734	0	0	852	195	0	0	0	127
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1101	0	0	1278	292	0	0	0	190
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1570			1101			2018	2379	2671	550
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1570			1101			2018	2379	2671	550
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	60
cM capacity (veh/h)	416			630			21	34	22	478

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	550	550	639	639	292	190
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	292	190
cSH	1700	1700	1700	1700	1700	478
Volume to Capacity	0.32	0.32	0.38	0.38	0.17	0.40
Queue Length 95th (ft)	0	0	0	0	0	47
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	17.4
Lane LOS						C
Approach Delay (s)	0.0		0.0			17.4
Approach LOS						C

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	45.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	512	349	0	722	0	0	0	0	325
Future Volume (Veh/h)	0	512	349	0	722	0	0	0	0	325
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	768	524	0	1083	0	0	0	0	488
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1083			1292			1798	1851	2375	542
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1083			1292			1798	1851	2375	542
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			0	100	100	0
cM capacity (veh/h)	640			532			0	73	34	485

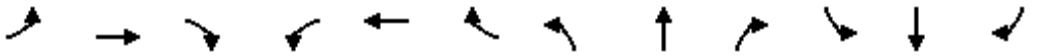
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	384	384	524	542	542	488
Volume Left	0	0	0	0	0	0
Volume Right	0	0	524	0	0	488
cSH	1700	1700	1700	1700	1700	485
Volume to Capacity	0.23	0.23	0.31	0.32	0.32	1.01
Queue Length 95th (ft)	0	0	0	0	0	343
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	71.8
Lane LOS						F
Approach Delay (s)	0.0			0.0		71.8
Approach LOS						F

Intersection Summary				
Average Delay	12.2			
Intersection Capacity Utilization	62.0%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	512	0	0	722	0	201
Future Volume (Veh/h)	512	0	0	722	0	201
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	768	0	0	1083	0	302
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			768		1310	384
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			768		1310	384
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	51
cM capacity (veh/h)			842		151	614

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	384	384	542	542	302
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	302
cSH	1700	1700	1700	1700	614
Volume to Capacity	0.23	0.23	0.32	0.32	0.49
Queue Length 95th (ft)	0	0	0	0	68
Control Delay (s)	0.0	0.0	0.0	0.0	16.4
Lane LOS					C
Approach Delay (s)	0.0		0.0		16.4
Approach LOS					C

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Future Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1698	1754	1553	1671	1793		1719	3442		1736	3410	
Flt Permitted	0.95	0.99	1.00	0.95	1.00		0.19	1.00		0.12	1.00	
Satd. Flow (perm)	1698	1754	1553	1671	1793		349	3442		222	3410	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	304	200	322	110	164	66	382	910	144	80	657	124
RTOR Reduction (vph)	0	0	244	0	9	0	0	6	0	0	8	0
Lane Group Flow (vph)	247	258	79	110	221	0	383	1049	0	80	774	0
Heavy Vehicles (%)	1%	2%	4%	8%	2%	0%	5%	3%	1%	4%	3%	5%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	27.6	27.6	27.6	22.6	22.6		64.0	52.4		55.2	48.0	
Effective Green, g (s)	27.6	27.6	27.6	22.6	22.6		64.0	52.4		55.2	48.0	
Actuated g/C Ratio	0.20	0.20	0.20	0.17	0.17		0.47	0.38		0.40	0.35	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	342	353	313	275	295		279	1317		169	1195	
v/s Ratio Prot	0.15	c0.15		0.07	c0.12		c0.12	c0.30		0.02	0.23	
v/s Ratio Perm			0.05				c0.52			0.17		
v/c Ratio	0.72	0.73	0.25	0.40	0.75		1.37	0.80		0.47	0.65	
Uniform Delay, d1	51.1	51.2	46.0	51.1	54.4		31.2	37.5		28.6	37.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.3	7.6	0.4	1.0	9.9		188.8	3.4		2.1	1.2	
Delay (s)	58.4	58.8	46.4	52.0	64.4		220.1	40.9		30.7	38.6	
Level of Service	E	E	D	D	E		F	D		C	D	
Approach Delay (s)		53.8			60.4			88.7			37.8	
Approach LOS		D			E			F			D	

Intersection Summary			
HCM 2000 Control Delay	64.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	136.9	Sum of lost time (s)	27.1
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	215	11	62	271	16	29
Future Volume (Veh/h)	215	11	62	271	16	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	337	17	97	425	25	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			354		964	346
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			354		964	346
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			92		90	94
cM capacity (veh/h)			1205		248	702

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	354	97	425	70
Volume Left	0	97	0	25
Volume Right	17	0	0	45
cSH	1700	1205	1700	425
Volume to Capacity	0.21	0.08	0.25	0.16
Queue Length 95th (ft)	0	7	0	15
Control Delay (s)	0.0	8.2	0.0	15.1
Lane LOS		A		C
Approach Delay (s)	0.0	1.5		15.1
Approach LOS				C

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

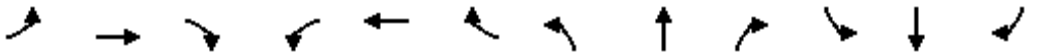
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Future Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Lane Util. Factor	1.00	0.91			1.00	0.91		1.00	1.00		0.95	0.95
Frt	1.00	0.99			1.00	0.99		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00		0.95	0.99
Satd. Flow (prot)	1752	5149			1532	4890		1752	1756		1665	1708
Flt Permitted	0.11	1.00			0.11	1.00		0.95	1.00		0.95	0.99
Satd. Flow (perm)	203	5149			179	4890		1752	1756		1665	1708
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	230	1895	68	4	62	1797	178	160	266	66	221	147
RTOR Reduction (vph)	0	2	0	0	0	7	0	0	6	0	0	0
Lane Group Flow (vph)	230	1961	0	0	66	1968	0	160	326	0	181	187
Heavy Vehicles (%)	3%	0%	6%	0%	19%	5%	1%	3%	4%	9%	3%	5%
Turn Type	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split	NA
Protected Phases	1	6		5	5	2		4	4		3	3
Permitted Phases	6			2	2							
Actuated Green, G (s)	41.9	36.4			41.1	36.0		30.5	30.5		22.6	22.6
Effective Green, g (s)	41.9	36.4			41.1	36.0		30.5	30.5		22.6	22.6
Actuated g/C Ratio	0.34	0.30			0.33	0.29		0.25	0.25		0.18	0.18
Clearance Time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Vehicle Extension (s)	3.0	5.0			3.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	138	1527			116	1434		435	436		306	314
v/s Ratio Prot	c0.07	0.38			0.02	0.40		0.09	c0.19		0.11	c0.11
v/s Ratio Perm	c0.49				0.17							
v/c Ratio	1.67	1.28			0.57	1.37		0.37	0.75		0.59	0.60
Uniform Delay, d1	38.2	43.2			32.7	43.4		38.1	42.5		45.8	45.9
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	329.7	133.0			6.3	172.1		1.1	8.2		4.6	4.5
Delay (s)	367.9	176.1			39.0	215.4		39.2	50.8		50.4	50.4
Level of Service	F	F			D	F		D	D		D	D
Approach Delay (s)		196.2				209.7			47.0			48.0
Approach LOS		F				F			D			D

Intersection Summary			
HCM 2000 Control Delay	172.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	122.7	Sum of lost time (s)	28.1
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	102
Future Volume (vph)	102
Ideal Flow (vphpl)	1900
Total Lost time (s)	6.3
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1568
Flt Permitted	1.00
Satd. Flow (perm)	1568
Peak-hour factor, PHF	0.96
Growth Factor (vph)	138%
Adj. Flow (vph)	147
RTOR Reduction (vph)	120
Lane Group Flow (vph)	27
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	22.6
Effective Green, g (s)	22.6
Actuated g/C Ratio	0.18
Clearance Time (s)	6.3
Vehicle Extension (s)	5.0
Lane Grp Cap (vph)	288
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.09
Uniform Delay, d1	41.6
Progression Factor	1.00
Incremental Delay, d2	0.3
Delay (s)	41.8
Level of Service	D
Approach Delay (s)	
Approach LOS	

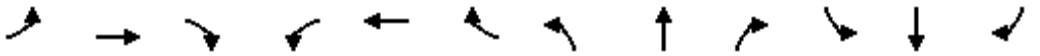
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Future Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3374	1583	1736	3347		1610	3258		1610	3226	
Flt Permitted	0.11	1.00	1.00	0.11	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	202	3374	1583	204	3347		1610	3258		1610	3226	
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	224	1090	454	168	850	266	572	959	58	310	934	114
RTOR Reduction (vph)	0	0	42	0	20	0	0	2	0	0	6	0
Lane Group Flow (vph)	224	1090	412	168	1096	0	515	1072	0	280	1073	0
Heavy Vehicles (%)	4%	7%	2%	4%	4%	4%	2%	5%	8%	2%	6%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	5	2	8	1	6		8	8		4	4	
Permitted Phases	2		2	6								
Actuated Green, G (s)	41.1	36.1	68.2	40.9	35.9		32.1	32.1		44.0	44.0	
Effective Green, g (s)	41.1	36.1	68.2	40.9	35.9		32.1	32.1		44.0	44.0	
Actuated g/C Ratio	0.28	0.25	0.47	0.28	0.25		0.22	0.22		0.30	0.30	
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	110	840	744	110	828		356	721		488	978	
v/s Ratio Prot	c0.07	0.32	0.12	0.05	0.33		0.32	c0.33		0.17	c0.33	
v/s Ratio Perm	c0.51		0.14	0.38								
v/c Ratio	2.04	1.30	0.55	1.53	1.32		1.45	1.49		0.57	1.10	
Uniform Delay, d1	50.6	54.4	27.5	50.7	54.5		56.5	56.5		42.6	50.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	496.6	142.7	1.9	277.8	153.9		216.2	226.2		3.2	59.3	
Delay (s)	547.1	197.1	29.4	328.5	208.4		272.7	282.7		45.8	109.8	
Level of Service	F	F	C	F	F		F	F		D	F	
Approach Delay (s)		198.4			224.1			279.4			96.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	202.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.53		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	119.9%	ICU Level of Service	H
Analysis Period (min)	15		

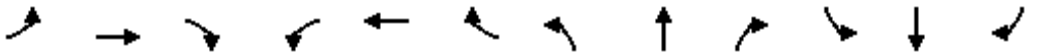
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Future Volume (Veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	31	7	67	41	0	0	0	0	27	2190	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	2273	2252	738	806	2261	0	2207			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1586	1559	0	0	1570	0	1500			0		
tC, single (s)	7.5	6.8	6.9	7.6	6.6	6.9	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.6	4.1	3.3	2.2			2.3		
p0 queue free %	100	58	99	87	48	100	100			98		
cM capacity (veh/h)	33	75	834	511	78	1091	346			1558		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	31	7	108	574	1095	564
Volume Left	0	0	67	27	0	0
Volume Right	0	7	0	0	0	17
cSH	75	834	165	1558	1700	1700
Volume to Capacity	0.42	0.01	0.65	0.02	0.64	0.33
Queue Length 95th (ft)	41	1	93	1	0	0
Control Delay (s)	84.1	9.4	60.7	0.5	0.0	0.0
Lane LOS	F	A	F	A		
Approach Delay (s)	70.3		60.7	0.1		
Approach LOS	F		F			

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	61.0%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Future Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1329	1599		1809						4843	
Flt Permitted		1.00	1.00		1.00						1.00	
Satd. Flow (perm)		1329	1599		1802						4843	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	0	138	1152	14	814	0	0	0	0	9	1236	93
RTOR Reduction (vph)	0	0	18	0	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	138	1134	0	829	0	0	0	0	0	1330	0
Heavy Vehicles (%)	0%	43%	1%	0%	5%	0%	0%	0%	0%	33%	5%	16%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		59.5	59.5		59.5						26.0	
Effective Green, g (s)		59.5	59.5		59.5						26.0	
Actuated g/C Ratio		0.60	0.60		0.60						0.26	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		790	951		1072						1259	
v/s Ratio Prot		0.10										
v/s Ratio Perm			c0.71		0.46						0.27	
v/c Ratio		0.17	1.19		0.77						1.06	
Uniform Delay, d1		9.2	20.2		15.2						37.0	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		0.5	97.1		5.4						41.6	
Delay (s)		9.6	117.4		20.6						78.6	
Level of Service		A	F		C						E	
Approach Delay (s)		105.9			20.6			0.0			78.6	
Approach LOS		F			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	74.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	148.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

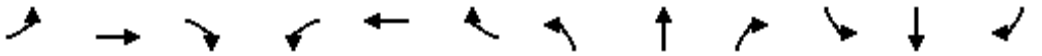
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Future Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	3303	1776	1468	1719	1827	1369		1743	4848	1553		1529
Flt Permitted	0.45	1.00	1.00	0.29	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1582	1776	1468	530	1827	1369		1743	4848	1553		1529
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	716	292	174	144	237	141	23	196	1820	165	9	175
RTOR Reduction (vph)	0	0	125	0	0	111	0	0	0	99	0	0
Lane Group Flow (vph)	716	292	49	144	237	30	0	219	1820	66	0	184
Heavy Vehicles (%)	6%	7%	10%	5%	4%	18%	0%	4%	7%	4%	0%	19%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	3	8		7	4		1	1	6		5	5
Permitted Phases	8		8	4		4				6		
Actuated Green, G (s)	30.4	25.3	25.3	32.8	26.5	26.5		12.0	49.2	49.2		11.0
Effective Green, g (s)	30.4	25.3	25.3	32.8	26.5	26.5		12.0	49.2	49.2		11.0
Actuated g/C Ratio	0.25	0.21	0.21	0.27	0.22	0.22		0.10	0.40	0.40		0.09
Clearance Time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0		3.0
Lane Grp Cap (vph)	463	366	302	202	394	295		170	1945	623		137
v/s Ratio Prot	c0.06	0.16		0.04	0.13			c0.13	0.38			0.12
v/s Ratio Perm	c0.32		0.03	0.15		0.02				0.04		
v/c Ratio	1.55	0.80	0.16	0.71	0.60	0.10		1.29	0.94	0.11		1.34
Uniform Delay, d1	46.4	46.2	40.0	39.4	43.3	38.5		55.3	35.2	23.0		55.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	256.4	11.5	0.3	11.3	2.6	0.2		166.6	9.4	0.2		195.1
Delay (s)	302.8	57.7	40.2	50.7	45.9	38.7		221.9	44.6	23.1		250.9
Level of Service	F	E	D	D	D	D		F	D	C		F
Approach Delay (s)		203.6			45.3				60.6			
Approach LOS		F			D				E			

Intersection Summary			
HCM 2000 Control Delay	86.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	122.6	Sum of lost time (s)	30.8
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1293	539
Future Volume (vph)	1293	539
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	8.0
Lane Util. Factor	0.91	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	4803	1495
Flt Permitted	1.00	1.00
Satd. Flow (perm)	4803	1495
Peak-hour factor, PHF	0.96	0.96
Growth Factor (vph)	138%	138%
Adj. Flow (vph)	1859	775
RTOR Reduction (vph)	0	258
Lane Group Flow (vph)	1859	517
Heavy Vehicles (%)	8%	8%
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	48.2	48.2
Effective Green, g (s)	48.2	48.2
Actuated g/C Ratio	0.39	0.39
Clearance Time (s)	8.0	8.0
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	1888	587
v/s Ratio Prot	c0.39	
v/s Ratio Perm		0.35
v/c Ratio	0.98	0.88
Uniform Delay, d1	36.8	34.5
Progression Factor	1.00	1.00
Incremental Delay, d2	17.2	15.4
Delay (s)	54.0	50.0
Level of Service	D	D
Approach Delay (s)	65.8	
Approach LOS	E	

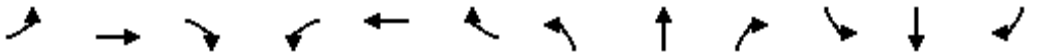
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Future Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1827	1524	1703	1805		1719	1672		1770	1761	
Flt Permitted	0.15	1.00	1.00	0.06	1.00		0.11	1.00		0.13	1.00	
Satd. Flow (perm)	268	1827	1524	110	1805		196	1672		239	1761	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	45	804	180	231	725	18	238	214	265	130	366	75
RTOR Reduction (vph)	0	0	104	0	1	0	0	32	0	0	5	0
Lane Group Flow (vph)	45	804	76	231	742	0	238	447	0	130	436	0
Heavy Vehicles (%)	6%	4%	6%	6%	5%	0%	5%	2%	6%	2%	5%	6%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	62.9	58.8	58.8	77.8	67.6		50.2	37.4		38.6	31.2	
Effective Green, g (s)	62.9	58.8	58.8	77.8	67.6		50.2	37.4		38.6	31.2	
Actuated g/C Ratio	0.45	0.42	0.42	0.56	0.48		0.36	0.27		0.28	0.22	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	162	767	640	207	871		213	446		146	392	
v/s Ratio Prot	0.01	0.44		c0.10	0.41		c0.10	c0.27		0.05	0.25	
v/s Ratio Perm	0.12		0.05	c0.51			c0.29			0.20		
v/c Ratio	0.28	1.05	0.12	1.12	0.85		1.12	1.00		0.89	1.11	
Uniform Delay, d1	26.7	40.6	24.8	46.0	31.8		39.5	51.3		43.8	54.4	
Progression Factor	1.00	1.00	1.00	1.25	0.70		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	45.9	0.4	86.9	7.4		96.7	43.4		43.7	79.0	
Delay (s)	27.7	86.5	25.2	144.6	29.6		136.2	94.7		87.5	133.4	
Level of Service	C	F	C	F	C		F	F		F	F	
Approach Delay (s)		73.2			56.9			108.5			123.0	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	84.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		

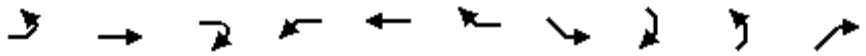
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Future Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1829		1444	1726			1662		1719	1900	1524
Flt Permitted	0.21	1.00		0.48	1.00			0.77		0.63	1.00	1.00
Satd. Flow (perm)	375	1829		723	1726			1306		1149	1900	1524
Peak-hour factor, PHF	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 (vph)	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%	138%
Adj. Flow (vph)	509	497	13	6	391	158	47	62	12	187	135	525
RTOR Reduction (vph)	0	1	0	0	9	0	0	3	0	0	0	426
Lane Group Flow (vph)	509	509	0	6	540	0	0	118	0	187	135	99
Heavy Vehicles (%)	6%	3%	22%	25%	3%	11%	9%	14%	0%	5%	0%	6%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	100.3	100.3		58.8	58.8			26.4		26.3	26.3	26.3
Effective Green, g (s)	100.3	100.3		58.8	58.8			26.4		26.3	26.3	26.3
Actuated g/C Ratio	0.72	0.72		0.42	0.42			0.19		0.19	0.19	0.19
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	598	1310		303	724			246		215	356	286
v/s Ratio Prot	c0.21	0.28			0.31						0.07	
v/s Ratio Perm	c0.40			0.01				0.09		c0.16		0.06
v/c Ratio	0.85	0.39		0.02	0.75			0.48		0.87	0.38	0.34
Uniform Delay, d1	25.6	7.8		23.7	34.3			50.7		55.2	49.7	49.4
Progression Factor	0.50	0.36		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.1		0.1	6.9			1.5		29.0	0.7	0.7
Delay (s)	13.9	2.9		23.9	41.2			52.1		84.2	50.4	50.1
Level of Service	B	A		C	D			D		F	D	D
Approach Delay (s)		8.4			41.0			52.1			57.7	
Approach LOS		A			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	34.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		

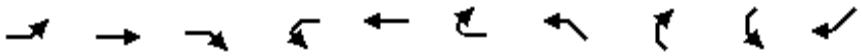
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	869	0	0	823	203	0	0	0	264
Future Volume (Veh/h)	0	869	0	0	823	203	0	0	0	264
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1304	0	0	1234	304	0	0	0	396
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1538			1304			2282	2538	2842	652
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1538			1304			2282	2538	2842	652
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	4
cM capacity (veh/h)	428			527			1	27	17	411

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	652	652	617	617	304	396
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	304	396
cSH	1700	1700	1700	1700	1700	411
Volume to Capacity	0.38	0.38	0.36	0.36	0.18	0.96
Queue Length 95th (ft)	0	0	0	0	0	283
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	68.0
Lane LOS						F
Approach Delay (s)	0.0		0.0			68.0
Approach LOS						F

Intersection Summary				
Average Delay	8.3			
Intersection Capacity Utilization	62.4%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	858	275	0	794	0	0	0	0	232
Future Volume (Veh/h)	0	858	275	0	794	0	0	0	0	232
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1287	412	0	1191	0	0	0	0	348
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1191			1699			2230	2478	2890	596
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1191			1699			2230	2478	2890	596
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			100	100	100	22
cM capacity (veh/h)	582			371			5	29	16	447

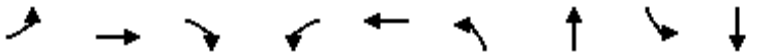
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	644	644	412	596	596	348
Volume Left	0	0	0	0	0	0
Volume Right	0	0	412	0	0	348
cSH	1700	1700	1700	1700	1700	447
Volume to Capacity	0.38	0.38	0.24	0.35	0.35	0.78
Queue Length 95th (ft)	0	0	0	0	0	170
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	36.0
Lane LOS						E
Approach Delay (s)	0.0			0.0		36.0
Approach LOS						E

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	58.3%	ICU Level of Service		B
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	858	0	0	794	0	221
Future Volume (Veh/h)	858	0	0	794	0	221
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1287	0	0	1191	0	332
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1287		1882	644
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1287		1882	644
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	20
cM capacity (veh/h)			535		63	416

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	644	644	596	596	332
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	332
cSH	1700	1700	1700	1700	416
Volume to Capacity	0.38	0.38	0.35	0.35	0.80
Queue Length 95th (ft)	0	0	0	0	177
Control Delay (s)	0.0	0.0	0.0	0.0	40.2
Lane LOS					E
Approach Delay (s)	0.0		0.0		40.2
Approach LOS					E

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	65	82	222	72	121	204	330	83	631
Future Volume (vph)	65	82	222	72	121	204	330	83	631
Lane Group Flow (vph)	92	139	348	113	239	320	653	130	1417
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	53.8	53.8	53.8	54.0	54.0	15.0	56.7	15.5	57.2
Total Split (%)	29.9%	29.9%	29.9%	30.0%	30.0%	8.3%	31.5%	8.6%	31.8%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	16.3	16.3	16.3	21.7	21.7	59.5	50.6	59.7	50.8
Actuated g/C Ratio	0.13	0.13	0.13	0.17	0.17	0.48	0.41	0.48	0.41
v/c Ratio	0.42	0.62	0.70	0.39	0.75	1.77	0.48	0.36	1.02
Control Delay	56.9	64.2	13.1	50.1	63.4	390.9	29.6	20.4	64.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	64.2	13.1	50.1	63.4	390.9	29.6	20.4	64.8
LOS	E	E	B	D	E	F	C	C	E
Approach Delay		32.3			59.1		148.4		61.1
Approach LOS		C			E		F		E
Queue Length 50th (ft)	72	112	0	81	179	~335	195	51	~622
Queue Length 95th (ft)	134	193	84	144	279	#594	302	108	#912
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	632	657	789	634	683	181	1366	371	1393
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.21	0.44	0.18	0.35	1.77	0.48	0.35	1.02

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 124.6	
Natural Cycle: 180	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.77	
Intersection Signal Delay: 80.7	Intersection LOS: F
Intersection Capacity Utilization 94.0%	ICU Level of Service F
Analysis Period (min) 15	

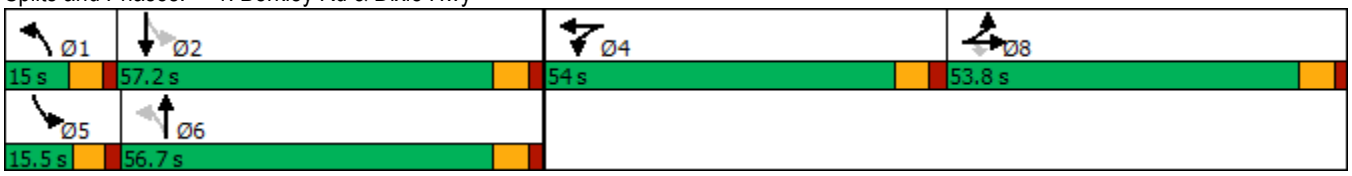
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Berkley Rd & Dixie Hwy



Lane Group	EBU	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Future Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Lane Group Flow (vph)	0	176	1535	0	108	1717	230	296	124	245	145
Turn Type	pm+pt	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	1	6	5	5	2	4	4	3	3	
Permitted Phases	6	6		2	2						3
Detector Phase	1	1	6	5	5	2	4	4	3	3	3
Switch Phase											
Minimum Initial (s)	5.0	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	12.6	41.6	12.6	12.6	40.6	51.6	51.6	53.3	53.3	53.3
Total Split (s)	12.6	12.6	42.5	12.6	12.6	42.5	51.6	51.6	53.3	53.3	53.3
Total Split (%)	7.9%	7.9%	26.6%	7.9%	7.9%	26.6%	32.3%	32.3%	33.3%	33.3%	33.3%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	Max	None	None	Max	None	None	None	None	None
Act Effct Green (s)		40.7	35.6		40.7	35.6	30.2	30.2	27.2	27.2	27.2
Actuated g/C Ratio		0.32	0.28		0.32	0.28	0.24	0.24	0.21	0.21	0.21
v/c Ratio		1.45	1.14		0.88	1.23	0.55	0.73	0.35	0.67	0.33
Control Delay		274.0	114.9		90.1	148.9	47.9	55.0	46.0	56.1	10.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		274.0	114.9		90.1	148.9	47.9	55.0	46.0	56.1	10.1
LOS		F	F		F	F	D	D	D	E	B
Approach Delay			131.3			145.5		51.9		40.7	
Approach LOS			F			F		D		D	
Queue Length 50th (ft)		~146	~535		57	~633	163	216	90	192	6
Queue Length 95th (ft)		#383	#860		#206	#983	276	357	169	323	64
Internal Link Dist (ft)			1129			1072		1025		971	
Turn Bay Length (ft)		120			80		300		150		155
Base Capacity (vph)		121	1343		123	1396	640	614	623	642	666
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0
Reduced v/c Ratio		1.45	1.14		0.88	1.23	0.36	0.48	0.20	0.38	0.22

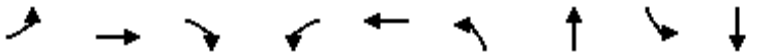
Intersection Summary			
Cycle Length: 160			
Actuated Cycle Length: 126.7			
Natural Cycle: 160			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.45			
Intersection Signal Delay: 117.6		Intersection LOS: F	
Intersection Capacity Utilization 89.9%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	676	474	153	578	311	446	287	677
Future Volume (vph)	156	676	474	153	578	311	446	287	677
Lane Group Flow (vph)	237	1025	719	232	1158	392	806	393	1142
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	12.0	43.4	39.0	11.1	42.5	39.0	39.0	51.5	51.5
Total Split (%)	8.3%	29.9%	26.9%	7.7%	29.3%	26.9%	26.9%	35.5%	35.5%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	42.8	37.1	74.5	41.4	36.2	31.1	31.1	44.0	44.0
Actuated g/C Ratio	0.30	0.26	0.51	0.29	0.25	0.21	0.21	0.30	0.30
v/c Ratio	2.01	1.20	0.84	2.09	1.35	1.14	1.17	0.80	1.16
Control Delay	506.9	146.5	37.5	543.8	206.8	140.8	140.1	59.7	127.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	506.9	146.5	37.5	543.8	206.8	140.8	140.1	59.7	127.1
LOS	F	F	D	F	F	F	F	E	F
Approach Delay		150.0			263.0		140.3		109.9
Approach LOS		F			F		F		F
Queue Length 50th (ft)	~301	~615	518	~297	~745	~472	~496	375	~698
Queue Length 95th (ft)	#479	#753	728	#474	#886	#702	#637	#534	#846
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	118	855	852	111	856	345	689	493	986
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.01	1.20	0.84	2.09	1.35	1.14	1.17	0.80	1.16

Intersection Summary	
Cycle Length: 145	
Actuated Cycle Length: 145	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.09	
Intersection Signal Delay: 163.8	Intersection LOS: F
Intersection Capacity Utilization 112.4%	ICU Level of Service H
Analysis Period (min) 15	

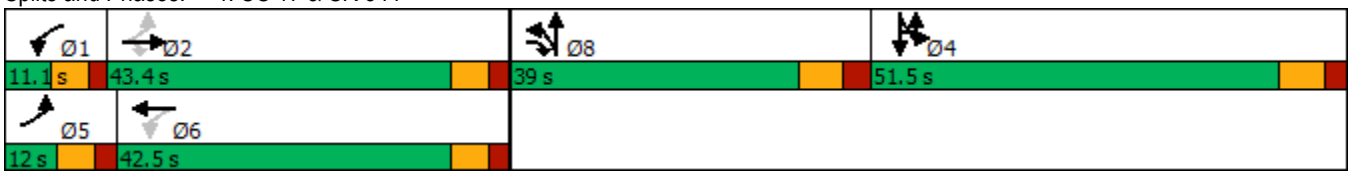
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544



Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	103	802	2	599	896
Future Volume (vph)	103	802	2	599	896
Lane Group Flow (vph)	156	1216	0	911	1458
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	98.0	98.0	98.0	98.0	42.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	30.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	Max	Max	Min
Act Effct Green (s)	90.5	90.5		90.5	35.0
Actuated g/C Ratio	0.65	0.65		0.65	0.25
v/c Ratio	0.14	1.24		0.79	1.18
Control Delay	10.1	143.7		24.1	136.2
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	10.1	143.7		24.1	136.2
LOS	B	F		C	F
Approach Delay	128.5			24.1	136.2
Approach LOS	F			C	F
Queue Length 50th (ft)	52	~1370		561	~583
Queue Length 95th (ft)	82	#1639		762	#682
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	1086	977		1157	1232
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.14	1.24		0.79	1.18

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Natural Cycle: 140	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 106.1	Intersection LOS: F
Intersection Capacity Utilization 156.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Future Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Lane Group Flow (vph)	759	239	236	0	164	298	159	287	1765	117	156	1465
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	3	8		7	7	4		1	6		5	2
Permitted Phases	8		8	4	4		4			6		
Detector Phase	3	8	8	7	7	4	4	1	6	6	5	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0
Total Split (s)	14.0	54.3	54.3	15.6	15.6	55.9	55.9	25.0	56.1	56.1	19.0	50.1
Total Split (%)	9.7%	37.4%	37.4%	10.8%	10.8%	38.6%	38.6%	17.2%	38.7%	38.7%	13.1%	34.6%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9		6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	30.2	23.0	23.0		33.4	24.6	24.6	16.0	48.2	48.2	10.0	42.2
Actuated g/C Ratio	0.25	0.19	0.19		0.28	0.20	0.20	0.13	0.40	0.40	0.08	0.35
v/c Ratio	1.89	0.72	0.53		0.63	0.79	0.39	1.24	0.91	0.17	1.27	0.89
Control Delay	435.6	58.4	14.0		43.2	61.3	9.0	180.9	43.3	2.4	213.9	45.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	435.6	58.4	14.0		43.2	61.3	9.0	180.9	43.3	2.4	213.9	45.7
LOS	F	E	B		D	E	A	F	D	A	F	D
Approach Delay		281.9				43.1			59.3			63.0
Approach LOS		F				D			E			E
Queue Length 50th (ft)	~465	176	28		96	222	1	~276	468	0	~152	390
Queue Length 95th (ft)	#606	265	102		153	321	56	#496	#656	22	#318	#549
Internal Link Dist (ft)		1032				1401			1080			1389
Turn Bay Length (ft)	525		580		600		390	800		860	790	
Base Capacity (vph)	401	685	710		261	749	653	232	1933	697	123	1646
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.89	0.35	0.33		0.63	0.40	0.24	1.24	0.91	0.17	1.27	0.89

Intersection Summary	
Cycle Length: 145	
Actuated Cycle Length: 120.9	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.89	
Intersection Signal Delay: 101.7	Intersection LOS: F
Intersection Capacity Utilization 102.3%	ICU Level of Service G
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	547
Future Volume (vph)	547
Lane Group Flow (vph)	803
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	41.0
Total Split (s)	50.1
Total Split (%)	34.6%
Yellow Time (s)	6.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	8.0
Lead/Lag	Lag
Lead-Lag Optimize?	
Recall Mode	Min
Act Effct Green (s)	42.2
Actuated g/C Ratio	0.35
v/c Ratio	1.04
Control Delay	65.2
Queue Delay	0.0
Total Delay	65.2
LOS	E
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	~468
Queue Length 95th (ft)	#776
Internal Link Dist (ft)	
Turn Bay Length (ft)	880
Base Capacity (vph)	770
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	1.04

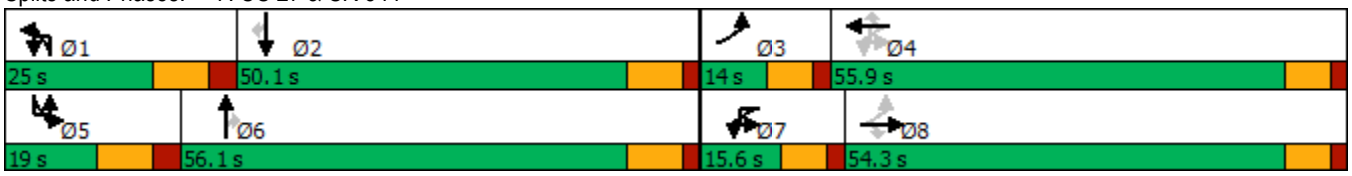
Intersection Summary

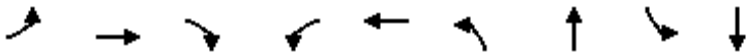
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544



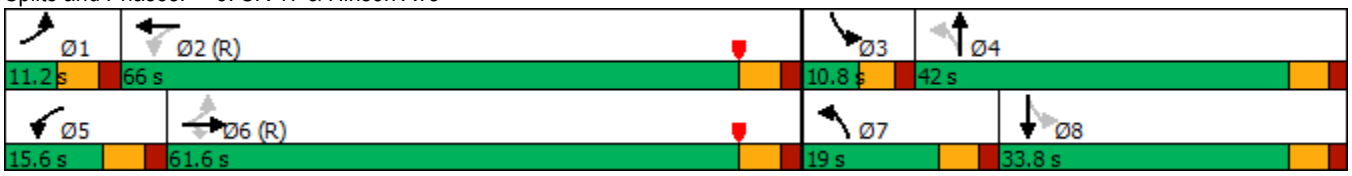


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	31	384	75	141	490	156	172	59	157
Future Volume (vph)	31	384	75	141	490	156	172	59	157
Lane Group Flow (vph)	49	602	118	221	781	245	453	93	329
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	11.2	61.6	61.6	15.6	66.0	19.0	42.0	10.8	33.8
Total Split (%)	8.6%	47.4%	47.4%	12.0%	50.8%	14.6%	32.3%	8.3%	26.0%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	60.6	55.4	55.4	69.7	62.0	47.0	36.2	33.8	28.0
Actuated g/C Ratio	0.47	0.43	0.43	0.54	0.48	0.36	0.28	0.26	0.22
v/c Ratio	0.36	0.84	0.16	0.82	0.90	0.93	0.91	0.63	0.85
Control Delay	21.7	45.7	1.3	37.3	31.3	74.1	66.0	50.5	68.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.7	45.7	1.3	37.3	31.3	74.1	66.0	50.5	68.0
LOS	C	D	A	D	C	E	E	D	E
Approach Delay		37.3			32.6		68.9		64.1
Approach LOS		D			C		E		E
Queue Length 50th (ft)	19	447	0	49	640	153	352	52	259
Queue Length 95th (ft)	38	594	9	m#134	#837	#275	#530	#97	#402
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	138	716	728	268	869	263	499	148	387
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.84	0.16	0.82	0.90	0.93	0.91	0.63	0.85

Intersection Summary		
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 44 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow		
Natural Cycle: 110		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 47.2	Intersection LOS: D	
Intersection Capacity Utilization 88.1%	ICU Level of Service E	
Analysis Period (min) 15		

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SR 17 & Hinson Ave

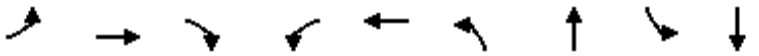


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	363	200	7	343	15	21	71	20	324
Future Volume (vph)	363	200	7	343	15	21	71	20	324
Lane Group Flow (vph)	539	307	10	675	0	57	105	30	481
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	42.6	96.8	54.2	54.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	32.8%	74.5%	41.7%	41.7%	25.5%	25.5%	25.5%	25.5%	25.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	99.7	99.7	57.1	57.1		17.0	16.9	16.9	16.9
Actuated g/C Ratio	0.77	0.77	0.44	0.44		0.13	0.13	0.13	0.13
v/c Ratio	0.93	0.22	0.02	0.87		0.30	0.61	0.12	0.78
Control Delay	31.0	1.6	24.2	46.5		49.8	67.0	47.8	13.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	31.0	1.6	24.2	46.5		49.8	67.0	47.8	13.9
LOS	C	A	C	D		D	E	D	B
Approach Delay		20.3		46.2		49.8		24.6	
Approach LOS		C		D		D		C	
Queue Length 50th (ft)	245	15	5	497		42	85	23	0
Queue Length 95th (ft)	m#518	m69	18	#833		79	138	49	107
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	582	1383	478	778		300	270	387	690
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	0.93	0.22	0.02	0.87		0.19	0.39	0.08	0.70

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 90.8%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: US 17 & E Hinson Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	203	133	215	73	109	255	607	53	438
Future Volume (vph)	203	133	215	73	109	255	607	53	438
Lane Group Flow (vph)	247	258	323	110	230	383	1055	80	782
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	53.8	53.8	53.8	54.0	54.0	18.0	58.6	13.6	54.2
Total Split (%)	29.9%	29.9%	29.9%	30.0%	30.0%	10.0%	32.6%	7.6%	30.1%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	27.6	27.6	27.6	22.6	22.6	64.3	52.4	55.4	47.9
Actuated g/C Ratio	0.20	0.20	0.20	0.16	0.16	0.47	0.38	0.40	0.35
v/c Ratio	0.72	0.73	0.58	0.40	0.76	1.37	0.80	0.47	0.65
Control Delay	64.3	64.5	10.7	56.6	68.9	214.0	44.6	33.9	42.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	64.5	10.7	56.6	68.9	214.0	44.6	33.9	42.3
LOS	E	E	B	E	E	F	D	C	D
Approach Delay		43.5			64.9		89.7		41.5
Approach LOS		D			E		F		D
Queue Length 50th (ft)	215	226	13	87	186	~318	425	37	297
Queue Length 95th (ft)	344	357	104	162	307	#675	#708	91	473
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	588	607	737	579	628	279	1321	169	1199
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.43	0.44	0.19	0.37	1.37	0.80	0.47	0.65

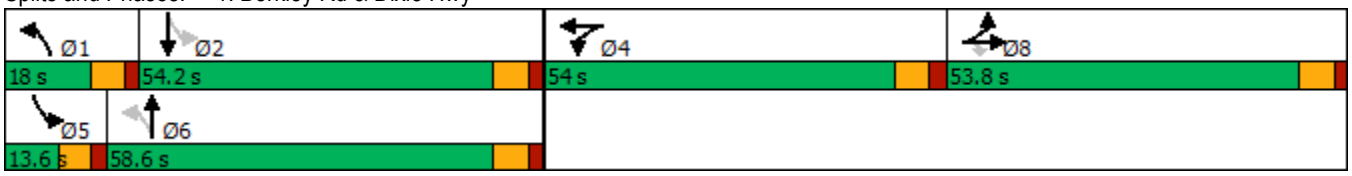
Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 137.2	
Natural Cycle: 180	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.37	
Intersection Signal Delay: 64.3	Intersection LOS: E
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

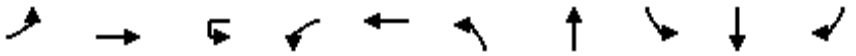
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Berkley Rd & Dixie Hwy





Lane Group	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Future Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Lane Group Flow (vph)	230	1963	0	66	1975	160	332	181	187	147
Turn Type	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	5	2	4	4	3	3	
Permitted Phases	6		2	2						3
Detector Phase	1	6	5	5	2	4	4	3	3	3
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	38.6	12.6	12.6	37.6	48.6	48.6	50.3	50.3	50.3
Total Split (s)	13.0	43.5	12.6	12.6	43.1	48.6	48.6	50.3	50.3	50.3
Total Split (%)	8.4%	28.1%	8.1%	8.1%	27.8%	31.4%	31.4%	32.5%	32.5%	32.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?										
Recall Mode	None	Max	None	None	Max	None	None	None	None	None
Act Effct Green (s)	41.9	36.5		41.1	36.1	30.5	30.5	22.6	22.6	22.6
Actuated g/C Ratio	0.34	0.30		0.33	0.29	0.25	0.25	0.18	0.18	0.18
v/c Ratio	1.67	1.29		0.57	1.37	0.37	0.75	0.59	0.60	0.36
Control Delay	356.7	170.3		50.9	207.2	41.4	53.9	55.3	55.2	9.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	356.7	170.3		50.9	207.2	41.4	53.9	55.3	55.2	9.3
LOS	F	F		D	F	D	D	E	E	A
Approach Delay		189.8			202.2		49.8		42.1	
Approach LOS		F			F		D		D	
Queue Length 50th (ft)	~219	~734		33	~767	105	237	140	144	0
Queue Length 95th (ft)	#466	#1049		#96	#1083	185	379	238	245	57
Internal Link Dist (ft)		1129			1072		1025		971	
Turn Bay Length (ft)	120			80		300		150		155
Base Capacity (vph)	138	1526		115	1437	606	612	603	619	662
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0
Reduced v/c Ratio	1.67	1.29		0.57	1.37	0.26	0.54	0.30	0.30	0.22

Intersection Summary	
Cycle Length: 155	
Actuated Cycle Length: 123.2	
Natural Cycle: 155	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.67	
Intersection Signal Delay: 167.0	Intersection LOS: F
Intersection Capacity Utilization 99.7%	ICU Level of Service F
Analysis Period (min) 15	

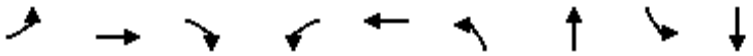
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	758	316	117	591	398	667	216	650
Future Volume (vph)	156	758	316	117	591	398	667	216	650
Lane Group Flow (vph)	224	1090	454	168	1116	515	1074	280	1079
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	11.3	42.4	40.0	11.1	42.2	40.0	40.0	51.5	51.5
Total Split (%)	7.8%	29.2%	27.6%	7.7%	29.1%	27.6%	27.6%	35.5%	35.5%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	41.1	36.1	74.5	41.1	35.9	32.1	32.1	44.0	44.0
Actuated g/C Ratio	0.28	0.25	0.51	0.28	0.25	0.22	0.22	0.30	0.30
v/c Ratio	2.04	1.30	0.53	1.53	1.32	1.45	1.49	0.57	1.10
Control Delay	521.2	185.6	21.7	308.4	192.0	256.0	264.5	48.1	105.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	521.2	185.6	21.7	308.4	192.0	256.0	264.5	48.1	105.1
LOS	F	F	C	F	F	F	F	D	F
Approach Delay		186.0			207.2		261.7		93.3
Approach LOS		F			F		F		F
Queue Length 50th (ft)	~283	~691	230	~170	~706	~725	~770	246	~629
Queue Length 95th (ft)	#458	#830	334	#329	#847	#974	#918	354	#776
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	110	840	852	110	848	356	723	488	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.04	1.30	0.53	1.53	1.32	1.45	1.49	0.57	1.10

Intersection Summary	
Cycle Length: 145	
Actuated Cycle Length: 145	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.04	
Intersection Signal Delay: 189.6	Intersection LOS: F
Intersection Capacity Utilization 119.9%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544

Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	92	768	9	543	824
Future Volume (vph)	92	768	9	543	824
Lane Group Flow (vph)	138	1152	0	829	1338
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	67.0	67.0	67.0	67.0	33.0
Total Split (%)	67.0%	67.0%	67.0%	67.0%	33.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	Max	Max	Min
Act Effct Green (s)	59.5	59.5		59.5	26.0
Actuated g/C Ratio	0.60	0.60		0.60	0.26
v/c Ratio	0.17	1.19		0.77	1.06
Control Delay	9.9	117.3		21.5	77.5
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	9.9	117.3		21.5	77.5
LOS	A	F		C	E
Approach Delay	105.8			21.5	77.5
Approach LOS	F			C	E
Queue Length 50th (ft)	37	~883		369	~342
Queue Length 95th (ft)	66	#1136		542	#437
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	790	969		1072	1268
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.17	1.19		0.77	1.06

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Natural Cycle: 100	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 74.6	Intersection LOS: E
Intersection Capacity Utilization 148.1%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Future Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Lane Group Flow (vph)	716	292	174	144	237	141	219	1820	165	184	1859	775
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4			6			2
Detector Phase	3	8	8	7	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0	41.0
Total Split (s)	12.0	54.7	54.7	13.2	55.9	55.9	21.0	57.1	57.1	20.0	56.1	56.1
Total Split (%)	8.3%	37.7%	37.7%	9.1%	38.6%	38.6%	14.5%	39.4%	39.4%	13.8%	38.7%	38.7%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	30.4	25.3	25.3	32.8	26.5	26.5	12.0	49.2	49.2	11.0	48.2	48.2
Actuated g/C Ratio	0.25	0.21	0.21	0.27	0.22	0.22	0.10	0.40	0.40	0.09	0.39	0.39
v/c Ratio	1.55	0.80	0.41	0.71	0.60	0.34	1.28	0.94	0.23	1.34	0.99	0.92
Control Delay	287.0	62.6	10.8	53.8	49.7	6.4	208.8	46.1	4.8	238.4	55.1	33.3
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	287.0	62.6	10.8	53.8	49.7	6.4	208.8	46.1	4.8	238.4	55.1	33.3
LOS	F	E	B	D	D	A	F	D	A	F	E	C
Approach Delay		190.9			39.1			59.2			61.0	
Approach LOS		F			D			E			E	
Queue Length 50th (ft)	~387	221	11	85	170	0	~219	498	0	~189	526	308
Queue Length 95th (ft)	#498	321	70	138	254	41	#415	#701	47	#370	#743	#659
Internal Link Dist (ft)		1032			1401			1080			1389	
Turn Bay Length (ft)	525		580	600		390	800		860	790		880
Base Capacity (vph)	463	693	668	202	730	641	171	1943	721	137	1886	845
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	1.55	0.42	0.26	0.71	0.32	0.22	1.28	0.94	0.23	1.34	0.99	0.92

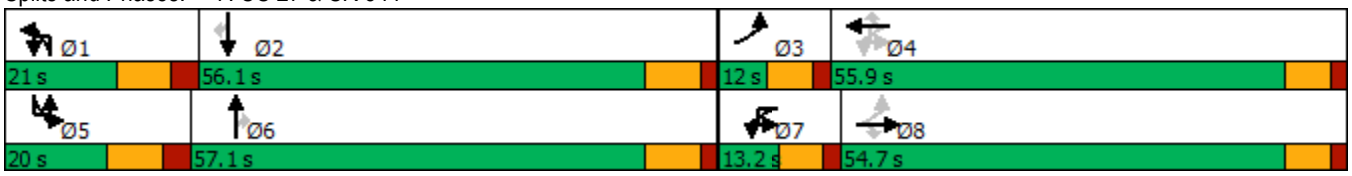
Intersection Summary		
Cycle Length: 145		
Actuated Cycle Length: 122.8		
Natural Cycle: 145		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.55		
Intersection Signal Delay: 81.6	Intersection LOS: F	
Intersection Capacity Utilization 103.4%	ICU Level of Service G	
Analysis Period (min) 15		
~ Volume exceeds capacity, queue is theoretically infinite.		

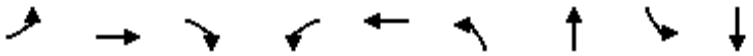
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544





Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	571	128	164	515	169	152	92	260
Future Volume (vph)	32	571	128	164	515	169	152	92	260
Lane Group Flow (vph)	45	804	180	231	743	238	479	130	441
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	11.2	65.0	65.0	19.0	72.8	19.0	43.2	12.8	37.0
Total Split (%)	8.0%	46.4%	46.4%	13.6%	52.0%	13.6%	30.9%	9.1%	26.4%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	64.0	58.8	58.8	77.9	68.8	50.2	37.4	39.0	31.2
Actuated g/C Ratio	0.46	0.42	0.42	0.56	0.49	0.36	0.27	0.28	0.22
v/c Ratio	0.26	1.05	0.24	1.11	0.84	1.12	1.00	0.88	1.11
Control Delay	18.8	85.3	2.8	127.7	29.5	131.7	88.0	84.2	127.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	85.3	2.8	127.7	29.5	131.7	88.0	84.2	127.1
LOS	B	F	A	F	C	F	F	F	F
Approach Delay		68.0			52.8		102.5		117.3
Approach LOS		E			D		F		F
Queue Length 50th (ft)	18	~794	0	~187	617	~198	~409	81	~454
Queue Length 95th (ft)	38	#1046	32	m#350	#738	#375	#647	#191	#670
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	174	767	758	208	887	213	478	147	397
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	1.05	0.24	1.11	0.84	1.12	1.00	0.88	1.11

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 53 (38%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 79.5	Intersection LOS: E
Intersection Capacity Utilization 110.2%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SR 17 & Hinson Ave

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	354	346	4	272	33	43	130	94	365
Future Volume (vph)	354	346	4	272	33	43	130	94	365
Lane Group Flow (vph)	509	510	6	549	0	121	187	135	525
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	47.2	104.5	57.3	57.3	35.5	35.5	35.5	35.5	35.5
Total Split (%)	33.7%	74.6%	40.9%	40.9%	25.4%	25.4%	25.4%	25.4%	25.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	100.3	100.3	58.8	58.8		26.4	26.3	26.3	26.3
Actuated g/C Ratio	0.72	0.72	0.42	0.42		0.19	0.19	0.19	0.19
v/c Ratio	0.85	0.39	0.02	0.75		0.49	0.87	0.38	0.74
Control Delay	11.4	3.1	29.2	43.1		55.3	89.4	52.2	10.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	11.4	3.1	29.2	43.1		55.3	89.4	52.2	10.7
LOS	B	A	C	D		E	F	D	B
Approach Delay		7.2		42.9		55.3		34.7	
Approach LOS		A		D		E		C	
Queue Length 50th (ft)	170	109	3	439		94	163	106	0
Queue Length 95th (ft)	m155	m107	14	#658		161	#289	172	113
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	653	1310	304	734		272	236	390	730
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	0.78	0.39	0.02	0.75		0.44	0.79	0.35	0.72

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 94.6%	ICU Level of Service F
Analysis Period (min) 15	

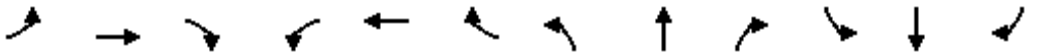
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: US 17 & E Hinson Ave

APPENDIX J

Design Year (2050)

Synchro Reports



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Future Volume (vph)	65	82	222	72	121	31	204	330	86	83	631	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1665	1730	1509	1671	1788		1770	3336		1770	3366	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.07	1.00		0.08	1.00	
Satd. Flow (perm)	1665	1730	1509	1671	1788		127	3336		140	3366	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	185	233	631	205	344	88	580	938	244	236	1793	773
RTOR Reduction (vph)	0	0	310	0	5	0	0	10	0	0	22	0
Lane Group Flow (vph)	166	252	321	205	427	0	580	1172	0	236	2544	0
Heavy Vehicles (%)	3%	4%	7%	8%	3%	3%	2%	3%	12%	2%	3%	1%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	48.2	48.2	48.2	52.9	52.9		92.1	58.5		81.7	53.3	
Effective Green, g (s)	48.2	48.2	48.2	52.9	52.9		92.1	58.5		81.7	53.3	
Actuated g/C Ratio	0.22	0.22	0.22	0.25	0.25		0.43	0.27		0.38	0.25	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	373	387	338	410	439		311	907		268	834	
v/s Ratio Prot	0.10	0.15		0.12	c0.24		c0.29	c0.35		0.12	c0.76	
v/s Ratio Perm			c0.21				0.51			0.22		
v/c Ratio	0.45	0.65	0.95	0.50	0.97		1.86	1.29		0.88	3.05	
Uniform Delay, d1	71.9	75.8	82.3	69.7	80.4		75.0	78.3		69.8	80.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	3.9	36.1	1.0	35.9		401.3	139.6		26.7	926.0	
Delay (s)	72.8	79.7	118.3	70.7	116.3		476.3	217.9		96.5	1006.9	
Level of Service	E	E	F	E	F		F	F		F	F	
Approach Delay (s)		101.8			101.6			303.0			930.2	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	529.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	215.1	Sum of lost time (s)	27.1
Intersection Capacity Utilization	147.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	292	15	38	144	9	18
Future Volume (Veh/h)	292	15	38	144	9	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	936	48	122	462	29	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			984		1666	960
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			984		1666	960
tC, single (s)			4.1		6.5	6.4
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.5
p0 queue free %			83		66	80
cM capacity (veh/h)			698		84	291

Direction, Lane #	EB 1	WB 1	WB 2	NE 1
Volume Total	984	122	462	87
Volume Left	0	122	0	29
Volume Right	48	0	0	58
cSH	1700	698	1700	160
Volume to Capacity	0.58	0.17	0.27	0.54
Queue Length 95th (ft)	0	16	0	69
Control Delay (s)	0.0	11.2	0.0	51.5
Lane LOS		B		F
Approach Delay (s)	0.0	2.3		51.5
Approach LOS				F

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Future Volume (vph)	1	118	993	42	1	72	1102	55	155	162	38	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		0.95
Frt		1.00	0.99			1.00	0.99		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1657	4775			1689	4961		1770	1683		1649
Flt Permitted		0.08	1.00			0.09	1.00		0.95	1.00		0.95
Satd. Flow (perm)		141	4775			160	4961		1770	1683		1649
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	3	317	2669	113	3	194	2962	148	417	435	102	250
RTOR Reduction (vph)	0	0	4	0	0	0	4	0	0	7	0	0
Lane Group Flow (vph)	0	320	2778	0	0	197	3106	0	417	530	0	225
Heavy Vehicles (%)	0%	9%	7%	31%	0%	7%	4%	0%	2%	7%	21%	4%
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split
Protected Phases	1	1	6		5	5	2		4	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		61.8	49.4			51.8	44.4		18.4	18.4		16.7
Effective Green, g (s)		61.8	49.4			51.8	44.4		18.4	18.4		16.7
Actuated g/C Ratio		0.51	0.41			0.43	0.37		0.15	0.15		0.14
Clearance Time (s)		7.6	7.6			7.6	7.6		6.6	6.6		6.3
Vehicle Extension (s)		3.0	5.0			3.0	5.0		5.0	5.0		5.0
Lane Grp Cap (vph)		229	1965			163	1835		271	258		229
v/s Ratio Prot		c0.14	c0.58			0.07	c0.63		0.24	c0.31		0.14
v/s Ratio Perm		0.57				0.45						
v/c Ratio		1.40	1.41			1.21	1.69		1.54	2.06		0.98
Uniform Delay, d1		36.9	35.3			29.4	37.8		50.8	50.8		51.5
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		203.2	189.4			137.5	314.0		260.1	488.0		54.6
Delay (s)		240.1	224.7			167.0	351.8		310.9	538.8		106.1
Level of Service		F	F			F	F		F	F		F
Approach Delay (s)			226.3				340.8			439.2		
Approach LOS			F				F			F		

Intersection Summary			
HCM 2000 Control Delay	300.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	28.1
Intersection Capacity Utilization	143.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	156	98
Future Volume (vph)	156	98
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	6.3	6.3
Lane Util. Factor	0.95	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1700	1538
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1700	1538
Peak-hour factor, PHF	0.93	0.93
Growth Factor (vph)	250%	250%
Adj. Flow (vph)	419	263
RTOR Reduction (vph)	0	147
Lane Group Flow (vph)	444	116
Heavy Vehicles (%)	6%	5%
Turn Type	NA	Perm
Protected Phases	3	
Permitted Phases		3
Actuated Green, G (s)	16.7	16.7
Effective Green, g (s)	16.7	16.7
Actuated g/C Ratio	0.14	0.14
Clearance Time (s)	6.3	6.3
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	236	214
v/s Ratio Prot	c0.26	
v/s Ratio Perm		0.08
v/c Ratio	1.88	0.54
Uniform Delay, d1	51.6	48.1
Progression Factor	1.00	1.00
Incremental Delay, d2	412.3	4.8
Delay (s)	463.9	52.9
Level of Service	F	D
Approach Delay (s)	261.6	
Approach LOS	F	

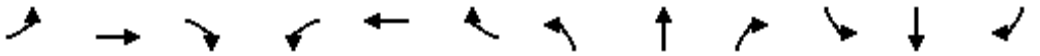
Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Future Volume (vph)	156	676	474	153	578	185	311	446	33	1	287	677
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91			0.91	0.91
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99			1.00	0.99
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (prot)	1736	3343	1583	1752	3345		1610	3197			1626	3239
Flt Permitted	0.07	1.00	1.00	0.07	1.00		0.95	1.00			0.95	1.00
Satd. Flow (perm)	124	3343	1583	137	3345		1610	3197			1626	3239
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	429	1857	1302	420	1588	508	854	1225	91	3	788	1860
RTOR Reduction (vph)	0	0	24	0	15	0	0	2	0	0	0	2
Lane Group Flow (vph)	429	1857	1278	420	2081	0	709	1459	0	0	712	2066
Heavy Vehicles (%)	4%	8%	2%	3%	4%	4%	2%	7%	9%	0%	1%	6%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	Split	NA
Protected Phases	5	2	8	1	6		8	8		4	4	4
Permitted Phases	2		2	6								
Actuated Green, G (s)	77.4	58.7	115.8	67.6	53.7		57.1	57.1			47.5	47.5
Effective Green, g (s)	77.4	58.7	115.8	67.6	53.7		57.1	57.1			47.5	47.5
Actuated g/C Ratio	0.38	0.29	0.56	0.33	0.26		0.28	0.28			0.23	0.23
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9			7.5	7.5
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0			6.0	6.0
Lane Grp Cap (vph)	193	957	894	154	876		448	890			376	750
v/s Ratio Prot	c0.20	c0.56	0.40	0.18	0.62		0.44	c0.46			0.44	c0.64
v/s Ratio Perm	0.63		0.41	c0.71								
v/c Ratio	2.22	1.94	1.43	2.73	2.38		1.58	1.64			1.89	2.75
Uniform Delay, d1	67.4	73.2	44.6	61.3	75.7		74.0	74.0			78.8	78.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	566.7	427.0	199.6	795.3	622.7		272.7	292.7			412.0	793.2
Delay (s)	634.2	500.2	244.2	856.6	698.3		346.6	366.7			490.8	871.9
Level of Service	F	F	F	F	F		F	F			F	F
Approach Delay (s)		423.3			724.7			360.1				774.3
Approach LOS		F			F			F				F

Intersection Summary			
HCM 2000 Control Delay	567.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.34		
Actuated Cycle Length (s)	205.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	184.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

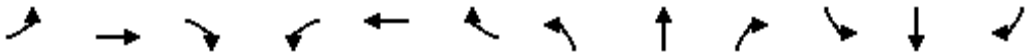
Movement	SBR
Lane Configurations	
Traffic Volume (vph)	47
Future Volume (vph)	47
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.91
Growth Factor (vph)	250%
Adj. Flow (vph)	129
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Future Volume (Veh/h)	0	112	15	46	38	0	0	0	0	16	1466	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	311	42	128	106	0	0	0	0	44	4072	44
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.63	0.63	0.63	0.63	0.63		0.63					
vC, conflicting volume	4235	4182	1379	1643	4204	0	4116			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	4081	3998	0	0	4032	0	3893			0		
tC, single (s)	7.5	6.6	6.9	7.6	6.6	6.9	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.3		
p0 queue free %	0	0	94	0	0	100	100			97		
cM capacity (veh/h)	0	2	690	0	2	1084	31			1545		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	311	42	234	1062	2036	1062
Volume Left	0	0	128	44	0	0
Volume Right	0	42	0	0	0	44
cSH	2	690	0	1545	1700	1700
Volume to Capacity	182.30	0.06	Err	0.03	1.20	0.62
Queue Length 95th (ft)	Err	5	Err	2	0	0
Control Delay (s)	Err	10.6	Err	0.8	0.0	0.0
Lane LOS	F	B	F	A		
Approach Delay (s)	8810.6		Err	0.2		
Approach LOS	F		F			

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	108.6%	ICU Level of Service	G	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Future Volume (vph)	0	103	802	2	599	0	0	0	0	5	896	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1681	1495		1792						4906	
Flt Permitted		1.00	1.00		1.00						1.00	
Satd. Flow (perm)		1681	1495		1791						4906	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	0	283	2203	5	1646	0	0	0	0	14	2462	165
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	283	2169	0	1651	0	0	0	0	0	2638	0
Heavy Vehicles (%)	2%	13%	8%	2%	6%	2%	2%	2%	2%	20%	4%	14%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		31.5	31.5		31.5						29.0	
Effective Green, g (s)		31.5	31.5		31.5						29.0	
Actuated g/C Ratio		0.42	0.42		0.42						0.39	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		706	627		752						1896	
v/s Ratio Prot		0.17										
v/s Ratio Perm			c1.45		0.92						0.54	
v/c Ratio		0.40	3.46		2.20						1.39	
Uniform Delay, d1		15.2	21.8		21.8						23.0	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		1.7	1111.0		542.3						179.4	
Delay (s)		16.9	1132.7		564.1						202.4	
Level of Service		B	F		F						F	
Approach Delay (s)		1005.7			564.1			0.0			202.4	
Approach LOS		F			F			A			F	

Intersection Summary			
HCM 2000 Control Delay	585.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.47		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	268.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

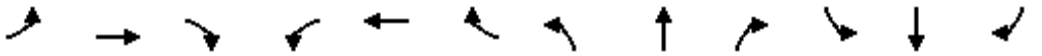
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Future Volume (vph)	517	163	161	1	111	203	108	12	183	1202	80	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Lane Util. Factor	0.97	1.00	1.00		1.00	1.00	1.00		1.00	0.91	1.00	
Frt	1.00	1.00	0.85		1.00	1.00	0.85		1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	3303	1743	1509		1720	1845	1380		1756	4848	1524	
Flt Permitted	0.14	1.00	1.00		0.14	1.00	1.00		0.95	1.00	1.00	
Satd. Flow (perm)	485	1743	1509		258	1845	1380		1756	4848	1524	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	1375	434	428	3	295	540	287	32	487	3197	213	21
RTOR Reduction (vph)	0	0	191	0	0	0	178	0	0	0	151	0
Lane Group Flow (vph)	1375	434	237	0	298	540	109	0	519	3197	62	0
Heavy Vehicles (%)	6%	9%	7%	0%	5%	3%	17%	0%	3%	7%	6%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot
Protected Phases	3	8		7	7	4		1	1	6		5
Permitted Phases	8		8	4	4		4				6	
Actuated Green, G (s)	51.8	28.7	28.7		50.6	28.1	28.1		21.0	42.0	42.0	
Effective Green, g (s)	51.8	28.7	28.7		50.6	28.1	28.1		21.0	42.0	42.0	
Actuated g/C Ratio	0.36	0.20	0.20		0.35	0.19	0.19		0.14	0.29	0.29	
Clearance Time (s)	6.9	6.9	6.9		6.9	6.9	6.9		9.0	8.0	8.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0		3.0	5.0	5.0	
Lane Grp Cap (vph)	622	344	298		316	357	267		254	1404	441	
v/s Ratio Prot	c0.35	0.25			0.15	0.29			c0.30	0.66		
v/s Ratio Perm	c0.44		0.16		0.18		0.08				0.04	
v/c Ratio	2.21	1.26	0.80		0.94	1.51	0.41		2.04	2.28	0.14	
Uniform Delay, d1	44.5	58.1	55.4		42.6	58.5	51.2		62.0	51.5	38.1	
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	550.0	139.1	13.6		35.7	244.7	1.0		483.0	577.0	0.3	
Delay (s)	594.5	197.2	69.0		78.2	303.1	52.2		545.0	628.5	38.4	
Level of Service	F	F	E		E	F	D		F	F	D	
Approach Delay (s)		416.9				179.5				585.4		
Approach LOS		F				F				F		

Intersection Summary			
HCM 2000 Control Delay	514.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.39		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	30.8
Intersection Capacity Utilization	164.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	98	998	547
Future Volume (vph)	98	998	547
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	9.0	8.0	8.0
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1488	4715	1495
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1488	4715	1495
Peak-hour factor, PHF	0.94	0.94	0.94
Growth Factor (vph)	250%	250%	250%
Adj. Flow (vph)	261	2654	1455
RTOR Reduction (vph)	0	0	257
Lane Group Flow (vph)	282	2654	1198
Heavy Vehicles (%)	23%	10%	8%
Turn Type	Prot	NA	Perm
Protected Phases	5	2	
Permitted Phases			2
Actuated Green, G (s)	21.0	42.0	42.0
Effective Green, g (s)	21.0	42.0	42.0
Actuated g/C Ratio	0.14	0.29	0.29
Clearance Time (s)	9.0	8.0	8.0
Vehicle Extension (s)	3.0	5.0	5.0
Lane Grp Cap (vph)	215	1365	433
v/s Ratio Prot	0.19	0.56	
v/s Ratio Perm			c0.80
v/c Ratio	1.31	1.94	2.77
Uniform Delay, d1	62.0	51.5	51.5
Progression Factor	1.00	1.00	1.00
Incremental Delay, d2	169.4	427.6	801.3
Delay (s)	231.4	479.1	852.8
Level of Service	F	F	F
Approach Delay (s)		587.1	
Approach LOS		F	

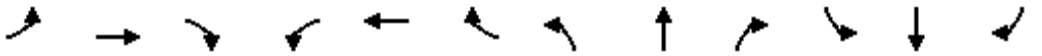
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Future Volume (vph)	31	384	75	141	490	8	156	172	117	59	157	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1681	1482	1703	1820		1736	1726		1752	1758	
Flt Permitted	0.14	1.00	1.00	0.13	1.00		0.19	1.00		0.25	1.00	
Satd. Flow (perm)	258	1681	1482	238	1820		355	1726		455	1758	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	88	1091	213	401	1392	23	443	489	332	168	446	151
RTOR Reduction (vph)	0	0	120	0	1	0	0	27	0	0	14	0
Lane Group Flow (vph)	88	1091	93	401	1414	0	443	794	0	168	583	0
Heavy Vehicles (%)	6%	13%	9%	6%	4%	13%	4%	1%	7%	3%	4%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	34.4	27.8	27.8	39.0	30.1		33.8	20.6		25.4	16.2	
Effective Green, g (s)	34.4	27.8	27.8	39.0	30.1		33.8	20.6		25.4	16.2	
Actuated g/C Ratio	0.38	0.31	0.31	0.43	0.33		0.38	0.23		0.28	0.18	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	204	519	457	248	608		335	395		260	316	
v/s Ratio Prot	0.03	0.65		c0.16	c0.78		c0.19	c0.46		0.07	0.33	
v/s Ratio Perm	0.13		0.06	0.54			0.30			0.12		
v/c Ratio	0.43	2.10	0.20	1.62	2.33		1.32	2.01		0.65	1.85	
Uniform Delay, d1	21.4	31.1	22.9	22.1	29.9		23.8	34.7		26.6	36.9	
Progression Factor	1.00	1.00	1.00	1.38	1.25		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.5	502.5	1.0	279.3	597.3		164.5	463.5		5.4	392.4	
Delay (s)	22.9	533.6	24.0	309.8	634.7		188.4	498.2		32.0	429.3	
Level of Service	C	F	C	F	F		F	F		C	F	
Approach Delay (s)		423.3			563.0			389.6			342.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	451.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	140.3%	ICU Level of Service	H
Analysis Period (min)	15		

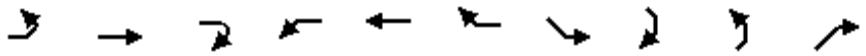
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Future Volume (vph)	363	200	7	7	343	112	15	21	3	71	20	324
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1803		1805	1756			1634		1597	1900	1509
Flt Permitted	0.10	1.00		0.46	1.00			0.86		0.74	1.00	1.00
Satd. Flow (perm)	171	1803		866	1756			1432		1241	1900	1509
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	976	538	19	19	922	301	40	56	8	191	54	871
RTOR Reduction (vph)	0	1	0	0	13	0	0	3	0	0	0	300
Lane Group Flow (vph)	976	556	0	19	1210	0	0	101	0	191	54	571
Heavy Vehicles (%)	6%	5%	0%	0%	3%	8%	20%	5%	33%	13%	0%	7%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	58.3	58.3		35.3	35.3			18.4		18.3	18.3	18.3
Effective Green, g (s)	58.3	58.3		35.3	35.3			18.4		18.3	18.3	18.3
Actuated g/C Ratio	0.65	0.65		0.39	0.39			0.20		0.20	0.20	0.20
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	388	1167		339	688			292		252	386	306
v/s Ratio Prot	c0.46	0.31			0.69						0.03	
v/s Ratio Perm	c1.18			0.02				0.07		0.15		c0.38
v/c Ratio	2.52	0.48		0.06	1.76			0.35		0.76	0.14	1.87
Uniform Delay, d1	28.3	8.1		17.0	27.4			30.6		33.8	29.4	35.9
Progression Factor	0.63	1.34		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	682.7	0.1		0.3	347.5			0.7		12.3	0.2	402.6
Delay (s)	700.4	10.9		17.3	374.9			31.4		46.0	29.6	438.5
Level of Service	F	B		B	F			C		D	C	F
Approach Delay (s)		449.9			369.4			31.4			351.5	
Approach LOS		F			F			C			F	

Intersection Summary			
HCM 2000 Control Delay	386.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	145.7%	ICU Level of Service	H
Analysis Period (min)	15		

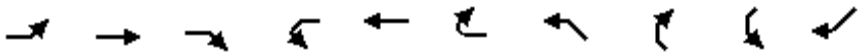
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	734	0	0	852	195	0	0	0	127
Future Volume (Veh/h)	0	734	0	0	852	195	0	0	0	127
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1995	0	0	2315	530	0	0	0	345
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	2845			1995			3658	4310	4840	998
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	2845			1995			3658	4310	4840	998
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			0	100	100	0
cM capacity (veh/h)	131			284			0	2	1	242

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	998	998	1158	1158	530	345
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	530	345
cSH	1700	1700	1700	1700	1700	242
Volume to Capacity	0.59	0.59	0.68	0.68	0.31	1.42
Queue Length 95th (ft)	0	0	0	0	0	487
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	251.3
Lane LOS						F
Approach Delay (s)	0.0		0.0			251.3
Approach LOS						F

Intersection Summary				
Average Delay	16.7			
Intersection Capacity Utilization	77.1%	ICU Level of Service		D
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	512	349	0	722	0	0	0	0	325
Future Volume (Veh/h)	0	512	349	0	722	0	0	0	0	325
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1391	948	0	1962	0	0	0	0	883
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	1962			2339			3255	3353	4301	981
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	1962			2339			3255	3353	4301	981
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			0	100	100	0
cM capacity (veh/h)	293			208			0	8	2	249

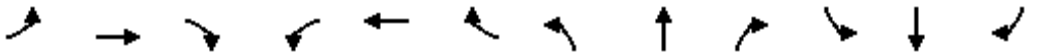
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	696	696	948	981	981	883
Volume Left	0	0	0	0	0	0
Volume Right	0	0	948	0	0	883
cSH	1700	1700	1700	1700	1700	249
Volume to Capacity	0.41	0.41	0.56	0.58	0.58	3.55
Queue Length 95th (ft)	0	0	0	0	0	Err
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	Err
Lane LOS						F
Approach Delay (s)	0.0			0.0		Err
Approach LOS						F

Intersection Summary				
Average Delay	1703.1			
Intersection Capacity Utilization	106.9%	ICU Level of Service		G
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	512	0	0	722	0	201
Future Volume (Veh/h)	512	0	0	722	0	201
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1391	0	0	1962	0	546
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1391		2372	696
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1391		2372	696
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			488		29	384

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	696	696	981	981	546
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	546
cSH	1700	1700	1700	1700	384
Volume to Capacity	0.41	0.41	0.58	0.58	1.42
Queue Length 95th (ft)	0	0	0	0	690
Control Delay (s)	0.0	0.0	0.0	0.0	231.2
Lane LOS					F
Approach Delay (s)	0.0		0.0		231.2
Approach LOS					F

Intersection Summary			
Average Delay	32.4		
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Future Volume (vph)	203	133	215	73	109	44	255	607	96	53	438	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	0.99	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1698	1754	1553	1671	1792		1719	3442		1736	3410	
Flt Permitted	0.95	0.99	1.00	0.95	1.00		0.07	1.00		0.08	1.00	
Satd. Flow (perm)	1698	1754	1553	1671	1792		121	3442		137	3410	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	552	361	584	198	296	120	693	1649	261	144	1190	226
RTOR Reduction (vph)	0	0	184	0	7	0	0	6	0	0	7	0
Lane Group Flow (vph)	447	466	400	198	409	0	693	1904	0	144	1409	0
Heavy Vehicles (%)	1%	2%	4%	8%	2%	0%	5%	3%	1%	4%	3%	5%
Turn Type	Split	NA	Perm	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases			8				6			2		
Actuated Green, G (s)	53.2	53.2	53.2	51.6	51.6		93.2	67.4		72.5	53.2	
Effective Green, g (s)	53.2	53.2	53.2	51.6	51.6		93.2	67.4		72.5	53.2	
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24		0.43	0.31		0.33	0.24	
Clearance Time (s)	6.8	6.8	6.8	7.0	7.0		6.5	6.8		6.5	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	413	426	377	394	422		296	1061		186	829	
v/s Ratio Prot	0.26	c0.27		0.12	c0.23		c0.36	0.55		0.07	0.41	
v/s Ratio Perm			0.26				c0.64			0.19		
v/c Ratio	1.08	1.09	1.06	0.50	0.97		2.34	1.79		0.77	1.70	
Uniform Delay, d1	82.7	82.7	82.7	72.4	82.7		76.4	75.6		61.0	82.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	68.2	71.4	63.5	1.0	35.4		614.0	361.5		18.0	320.1	
Delay (s)	150.9	154.1	146.2	73.4	118.2		690.4	437.1		79.0	402.8	
Level of Service	F	F	F	E	F		F	F		E	F	
Approach Delay (s)		150.1			103.7			504.6			372.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	348.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.66		
Actuated Cycle Length (s)	218.6	Sum of lost time (s)	27.1
Intersection Capacity Utilization	138.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	215	11	62	271	16	29
Future Volume (Veh/h)	215	11	62	271	16	29
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	611	31	176	770	45	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			642		1748	626
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			642		1748	626
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			81		38	83
cM capacity (veh/h)			943		72	487

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	642	176	770	127
Volume Left	0	176	0	45
Volume Right	31	0	0	82
cSH	1700	943	1700	160
Volume to Capacity	0.38	0.19	0.45	0.79
Queue Length 95th (ft)	0	17	0	128
Control Delay (s)	0.0	9.7	0.0	81.7
Lane LOS		A		F
Approach Delay (s)	0.0	1.8		81.7
Approach LOS				F

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		

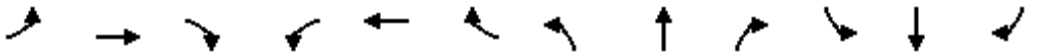
Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Future Volume (vph)	160	1318	47	3	43	1250	124	111	185	46	154	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Lane Util. Factor	1.00	0.91			1.00	0.91		1.00	1.00		0.95	0.95
Frt	1.00	0.99			1.00	0.99		1.00	0.97		1.00	1.00
Flt Protected	0.95	1.00			0.95	1.00		0.95	1.00		0.95	0.99
Satd. Flow (prot)	1752	5150			1533	4890		1752	1755		1665	1708
Flt Permitted	0.09	1.00			0.10	1.00		0.95	1.00		0.95	0.99
Satd. Flow (perm)	163	5150			160	4890		1752	1755		1665	1708
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	417	3432	122	8	112	3255	323	289	482	120	401	266
RTOR Reduction (vph)	0	3	0	0	0	9	0	0	7	0	0	0
Lane Group Flow (vph)	417	3551	0	0	120	3569	0	289	595	0	329	338
Heavy Vehicles (%)	3%	0%	6%	0%	19%	5%	1%	3%	4%	9%	3%	5%
Turn Type	pm+pt	NA		pm+pt	pm+pt	NA		Split	NA		Split	NA
Protected Phases	1	6		5	5	2		4	4		3	3
Permitted Phases	6			2	2							
Actuated Green, G (s)	57.8	45.4			47.8	40.4		33.4	33.4		15.7	15.7
Effective Green, g (s)	57.8	45.4			47.8	40.4		33.4	33.4		15.7	15.7
Actuated g/C Ratio	0.44	0.35			0.37	0.31		0.26	0.26		0.12	0.12
Clearance Time (s)	7.6	7.6			7.6	7.6		6.6	6.6		6.3	6.3
Vehicle Extension (s)	3.0	5.0			3.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	224	1798			136	1519		450	450		201	206
v/s Ratio Prot	c0.18	c0.69			0.05	c0.73		0.16	c0.34		0.20	c0.20
v/s Ratio Perm	0.65				0.27							
v/c Ratio	1.86	1.98			0.88	2.35		0.64	1.32		1.64	1.64
Uniform Delay, d1	38.4	42.3			33.7	44.8		43.0	48.3		57.1	57.1
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	404.4	440.9			43.9	609.4		4.3	160.2		308.0	309.2
Delay (s)	442.8	483.2			77.6	654.2		47.2	208.5		365.1	366.4
Level of Service	F	F			E	F		D	F		F	F
Approach Delay (s)		478.9				635.5			156.2			278.8
Approach LOS		F				F			F			F

Intersection Summary			
HCM 2000 Control Delay	489.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.89		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.1
Intersection Capacity Utilization	161.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	102
Future Volume (vph)	102
Ideal Flow (vphpl)	1900
Total Lost time (s)	6.3
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1568
Flt Permitted	1.00
Satd. Flow (perm)	1568
Peak-hour factor, PHF	0.96
Growth Factor (vph)	250%
Adj. Flow (vph)	266
RTOR Reduction (vph)	157
Lane Group Flow (vph)	109
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	3
Actuated Green, G (s)	15.7
Effective Green, g (s)	15.7
Actuated g/C Ratio	0.12
Clearance Time (s)	6.3
Vehicle Extension (s)	5.0
Lane Grp Cap (vph)	189
v/s Ratio Prot	
v/s Ratio Perm	0.07
v/c Ratio	0.58
Uniform Delay, d1	54.0
Progression Factor	1.00
Incremental Delay, d2	6.7
Delay (s)	60.7
Level of Service	E
Approach Delay (s)	
Approach LOS	

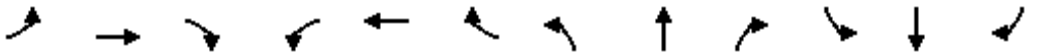
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Future Volume (vph)	156	758	316	117	591	185	398	667	40	216	650	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.91	0.91		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3374	1583	1736	3347		1610	3258		1610	3226	
Flt Permitted	0.07	1.00	1.00	0.07	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	124	3374	1583	136	3347		1610	3258		1610	3226	
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	406	1974	823	305	1539	482	1036	1737	104	562	1693	206
RTOR Reduction (vph)	0	0	24	0	15	0	0	2	0	0	4	0
Lane Group Flow (vph)	406	1974	799	305	2006	0	932	1943	0	507	1951	0
Heavy Vehicles (%)	4%	7%	2%	4%	4%	4%	2%	5%	8%	2%	6%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	5	2	8	1	6		8	8		4	4	
Permitted Phases	2		2	6								
Actuated Green, G (s)	77.4	58.7	115.8	67.6	53.7		57.1	57.1		47.5	47.5	
Effective Green, g (s)	77.4	58.7	115.8	67.6	53.7		57.1	57.1		47.5	47.5	
Actuated g/C Ratio	0.38	0.29	0.56	0.33	0.26		0.28	0.28		0.23	0.23	
Clearance Time (s)	6.3	6.3	7.9	6.1	6.3		7.9	7.9		7.5	7.5	
Vehicle Extension (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)	193	966	894	153	876		448	907		373	747	
v/s Ratio Prot	c0.19	c0.59	0.25	0.13	c0.60		0.58	c0.60		0.31	c0.60	
v/s Ratio Perm	0.60		0.26	0.52								
v/c Ratio	2.10	2.04	0.89	1.99	2.29		2.08	2.14		1.36	2.61	
Uniform Delay, d1	67.4	73.2	39.2	61.4	75.7		74.0	74.0		78.8	78.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	513.8	473.2	12.4	469.5	584.2		493.8	517.6		178.2	729.3	
Delay (s)	581.3	546.3	51.6	531.0	659.9		567.7	591.6		257.0	808.0	
Level of Service	F	F	D	F	F		F	F		F	F	
Approach Delay (s)		423.6			643.0			583.8			694.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	574.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.32		
Actuated Cycle Length (s)	205.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	198.3%	ICU Level of Service	H
Analysis Period (min)	15		

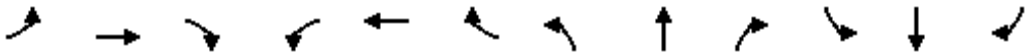
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Future Volume (Veh/h)	0	22	5	47	29	0	0	0	0	19	1539	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	57	13	121	75	0	0	0	0	49	3966	31
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											547	
pX, platoon unblocked	0.63	0.63	0.63	0.63	0.63		0.63					
vC, conflicting volume	4117	4080	1338	1462	4095	0	3997			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3896	3837	0	0	3862	0	3707			0		
tC, single (s)	7.5	6.8	6.9	7.6	6.6	6.9	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.6	4.1	3.3	2.2			2.3		
p0 queue free %	0	0	98	0	0	100	100			97		
cM capacity (veh/h)	0	2	692	0	2	1091	38			1558		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	SB 3
Volume Total	57	13	196	1040	1983	1022
Volume Left	0	0	121	49	0	0
Volume Right	0	13	0	0	0	31
cSH	2	692	0	1558	1700	1700
Volume to Capacity	32.85	0.02	Err	0.03	1.17	0.60
Queue Length 95th (ft)	Err	1	Err	2	0	0
Control Delay (s)	Err	10.3	Err	0.9	0.0	0.0
Lane LOS	F	B	F	A		
Approach Delay (s)	8144.0		Err	0.2		
Approach LOS	F		F			

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	99.6%	ICU Level of Service	F	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Future Volume (vph)	0	92	768	9	543	0	0	0	0	6	824	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.5	7.5		7.5						7.0	
Lane Util. Factor		1.00	1.00		1.00						0.91	
Frt		1.00	0.85		1.00						0.99	
Flt Protected		1.00	1.00		1.00						1.00	
Satd. Flow (prot)		1329	1599		1809						4843	
Flt Permitted		1.00	1.00		0.99						1.00	
Satd. Flow (perm)		1329	1599		1796						4843	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	0	250	2087	24	1476	0	0	0	0	16	2239	168
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	250	2053	0	1500	0	0	0	0	0	2417	0
Heavy Vehicles (%)	0%	43%	1%	0%	5%	0%	0%	0%	0%	33%	5%	16%
Turn Type		NA	Perm	Perm	NA					Perm	NA	
Protected Phases		8			4						2	
Permitted Phases			8	4						2		
Actuated Green, G (s)		31.5	31.5		31.5						29.0	
Effective Green, g (s)		31.5	31.5		31.5						29.0	
Actuated g/C Ratio		0.42	0.42		0.42						0.39	
Clearance Time (s)		7.5	7.5		7.5						7.0	
Vehicle Extension (s)		3.0	3.0		3.0						3.5	
Lane Grp Cap (vph)		558	671		754						1872	
v/s Ratio Prot		0.19										
v/s Ratio Perm			c1.28		0.84						0.50	
v/c Ratio		0.45	3.06		1.99						1.29	
Uniform Delay, d1		15.5	21.8		21.8						23.0	
Progression Factor		1.00	1.00		1.00						1.00	
Incremental Delay, d2		2.6	931.0		450.0						135.3	
Delay (s)		18.1	952.8		471.7						158.3	
Level of Service		B	F		F						F	
Approach Delay (s)		852.8			471.7			0.0			158.3	
Approach LOS		F			F			A			F	

Intersection Summary			
HCM 2000 Control Delay	492.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.21		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.5
Intersection Capacity Utilization	253.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

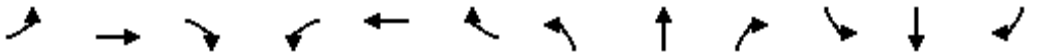
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Future Volume (vph)	498	203	121	100	165	98	16	136	1266	115	6	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00		1.00	0.91	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	3303	1776	1468	1719	1827	1369		1743	4848	1553		1528
Flt Permitted	0.13	1.00	1.00	0.14	1.00	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	459	1776	1468	258	1827	1369		1743	4848	1553		1528
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	1297	529	315	260	430	255	42	354	3297	299	16	318
RTOR Reduction (vph)	0	0	183	0	0	186	0	0	0	212	0	0
Lane Group Flow (vph)	1297	529	132	260	430	69	0	396	3297	87	0	334
Heavy Vehicles (%)	6%	7%	10%	5%	4%	18%	0%	4%	7%	4%	0%	19%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	3	8		7	4		1	1	6		5	5
Permitted Phases	8		8	4		4				6		
Actuated Green, G (s)	53.4	30.3	30.3	49.0	28.1	28.1		21.0	42.0	42.0		21.0
Effective Green, g (s)	53.4	30.3	30.3	49.0	28.1	28.1		21.0	42.0	42.0		21.0
Actuated g/C Ratio	0.37	0.21	0.21	0.34	0.19	0.19		0.14	0.29	0.29		0.14
Clearance Time (s)	6.9	6.9	6.9	6.9	6.9	6.9		9.0	8.0	8.0		9.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	5.0	5.0		3.0
Lane Grp Cap (vph)	622	371	306	297	354	265		252	1404	449		221
v/s Ratio Prot	c0.33	0.30		0.13	0.24			c0.23	0.68			0.22
v/s Ratio Perm	c0.44		0.09	0.17		0.05				0.06		
v/c Ratio	2.09	1.43	0.43	0.88	1.21	0.26		1.57	2.35	0.19		1.51
Uniform Delay, d1	44.7	57.4	49.9	40.0	58.5	49.6		62.0	51.5	38.7		62.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	493.8	206.7	1.0	23.7	119.8	0.5		275.5	609.0	0.4		252.1
Delay (s)	538.6	264.1	50.9	63.7	178.3	50.1		337.5	660.5	39.2		314.1
Level of Service	F	F	D	E	F	D		F	F	D		F
Approach Delay (s)		399.0			112.2				581.9			
Approach LOS		F			F				F			

Intersection Summary			
HCM 2000 Control Delay	560.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.22		
Actuated Cycle Length (s)	145.0	Sum of lost time (s)	30.8
Intersection Capacity Utilization	166.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1293	539
Future Volume (vph)	1293	539
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	8.0
Lane Util. Factor	0.91	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	4803	1495
Flt Permitted	1.00	1.00
Satd. Flow (perm)	4803	1495
Peak-hour factor, PHF	0.96	0.96
Growth Factor (vph)	250%	250%
Adj. Flow (vph)	3367	1404
RTOR Reduction (vph)	0	272
Lane Group Flow (vph)	3367	1132
Heavy Vehicles (%)	8%	8%
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	42.0	42.0
Effective Green, g (s)	42.0	42.0
Actuated g/C Ratio	0.29	0.29
Clearance Time (s)	8.0	8.0
Vehicle Extension (s)	5.0	5.0
Lane Grp Cap (vph)	1391	433
v/s Ratio Prot	0.70	
v/s Ratio Perm		c0.76
v/c Ratio	2.42	2.61
Uniform Delay, d1	51.5	51.5
Progression Factor	1.00	1.00
Incremental Delay, d2	641.4	733.1
Delay (s)	692.9	784.6
Level of Service	F	F
Approach Delay (s)	693.4	
Approach LOS	F	

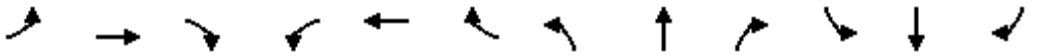
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Future Volume (vph)	32	571	128	164	515	13	169	152	188	92	260	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1703	1827	1524	1703	1805		1719	1672		1770	1761	
Flt Permitted	0.10	1.00	1.00	0.08	1.00		0.14	1.00		0.17	1.00	
Satd. Flow (perm)	172	1827	1524	150	1805		250	1672		321	1761	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	82	1457	327	418	1314	33	431	388	480	235	663	135
RTOR Reduction (vph)	0	0	119	0	1	0	0	37	0	0	6	0
Lane Group Flow (vph)	82	1457	208	418	1346	0	431	831	0	235	792	0
Heavy Vehicles (%)	6%	4%	6%	6%	5%	0%	5%	2%	6%	2%	5%	6%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	48.5	41.8	41.8	61.8	49.0		46.2	31.2		32.8	23.2	
Effective Green, g (s)	48.5	41.8	41.8	61.8	49.0		46.2	31.2		32.8	23.2	
Actuated g/C Ratio	0.40	0.35	0.35	0.51	0.41		0.39	0.26		0.27	0.19	
Clearance Time (s)	6.1	6.2	6.2	6.1	6.2		5.8	5.8		5.4	5.8	
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	154	636	530	257	737		306	434		203	340	
v/s Ratio Prot	0.03	c0.80		c0.19	c0.75		c0.20	c0.50		0.09	c0.45	
v/s Ratio Perm	0.18		0.14	0.65			0.34			0.22		
v/c Ratio	0.53	2.29	0.39	1.63	1.83		1.41	1.91		1.16	2.33	
Uniform Delay, d1	28.6	39.1	29.5	37.4	35.5		34.7	44.4		39.9	48.4	
Progression Factor	1.00	1.00	1.00	1.24	0.96		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.5	585.9	2.2	283.5	372.6		202.3	420.1		112.1	606.8	
Delay (s)	32.1	625.0	31.7	330.1	406.5		237.0	464.5		152.0	655.2	
Level of Service	C	F	C	F	F		F	F		F	F	
Approach Delay (s)		495.0			388.4			389.0			540.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	448.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.9
Intersection Capacity Utilization	183.4%	ICU Level of Service	H
Analysis Period (min)	15		

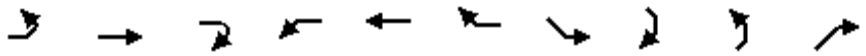
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Future Volume (vph)	354	346	9	4	272	110	33	43	8	130	94	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	0.96			0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	1.00
Satd. Flow (prot)	1703	1829		1444	1726			1662		1719	1900	1524
Flt Permitted	0.09	1.00		0.28	1.00			0.60		0.57	1.00	1.00
Satd. Flow (perm)	163	1829		432	1726			1012		1024	1900	1524
Peak-hour factor, PHF	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 (vph)	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
Adj. Flow (vph)	922	901	23	10	708	286	86	112	21	339	245	951
RTOR Reduction (vph)	0	1	0	0	12	0	0	3	0	0	0	378
Lane Group Flow (vph)	922	923	0	10	982	0	0	216	0	339	245	573
Heavy Vehicles (%)	6%	3%	22%	25%	3%	11%	9%	14%	0%	5%	0%	6%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		8
Actuated Green, G (s)	74.3	74.3		37.3	37.3			32.4		32.3	32.3	32.3
Effective Green, g (s)	74.3	74.3		37.3	37.3			32.4		32.3	32.3	32.3
Actuated g/C Ratio	0.62	0.62		0.31	0.31			0.27		0.27	0.27	0.27
Clearance Time (s)	6.7	6.7		6.7	6.7			6.6		6.7	6.7	6.7
Vehicle Extension (s)	3.0	5.0		5.0	5.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	489	1132		134	536			273		275	511	410
v/s Ratio Prot	c0.48	0.50			0.57						0.13	
v/s Ratio Perm	c0.69			0.02				0.21		0.33		c0.38
v/c Ratio	1.89	0.82		0.07	1.83			0.79		1.23	0.48	1.40
Uniform Delay, d1	37.1	17.6		29.2	41.4			40.7		43.9	36.8	43.9
Progression Factor	0.80	1.33		1.00	1.00			1.00		1.00	1.00	1.00
Incremental Delay, d2	399.2	0.6		1.1	381.4			14.4		132.2	0.7	193.4
Delay (s)	428.7	24.0		30.3	422.7			55.1		176.0	37.5	237.2
Level of Service	F	C		C	F			E		F	D	F
Approach Delay (s)		226.1			418.8			55.1			191.8	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	248.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.1
Intersection Capacity Utilization	153.3%	ICU Level of Service	H
Analysis Period (min)	15		

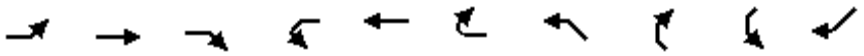
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL	NER
Lane Configurations		↑↑			↑↑	↱				↱
Traffic Volume (veh/h)	0	869	0	0	823	203	0	0	0	264
Future Volume (Veh/h)	0	869	0	0	823	203	0	0	0	264
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2361	0	0	2236	552	0	0	0	717
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	2788			2361			4134	4597	5149	1180
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	2788			2361			4134	4597	5149	1180
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			0	100	100	0
cM capacity (veh/h)	138			204			0	1	0	183

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NE 1
Volume Total	1180	1180	1118	1118	552	717
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	552	717
cSH	1700	1700	1700	1700	1700	183
Volume to Capacity	0.69	0.69	0.66	0.66	0.32	3.92
Queue Length 95th (ft)	0	0	0	0	0	Err
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	Err
Lane LOS						F
Approach Delay (s)	0.0		0.0			Err
Approach LOS						F

Intersection Summary				
Average Delay	1222.2			
Intersection Capacity Utilization	107.6%	ICU Level of Service	G	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL	SWR
Lane Configurations		↑↑	↱		↑↑					↱
Traffic Volume (veh/h)	0	858	275	0	794	0	0	0	0	232
Future Volume (Veh/h)	0	858	275	0	794	0	0	0	0	232
Sign Control		Free			Free		Yield		Yield	
Grade		0%			0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2332	747	0	2158	0	0	0	0	630
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type		None			None					
Median storage veh)										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume	2158			3079			4041	4490	5237	1079
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	2158			3079			4041	4490	5237	1079
tC, single (s)	4.1			4.1			7.5	6.5	6.5	6.9
tC, 2 stage (s)										
tF (s)	2.2			2.2			3.5	4.0	4.0	3.3
p0 queue free %	100			100			0	100	100	0
cM capacity (veh/h)	245			105			0	1	0	214

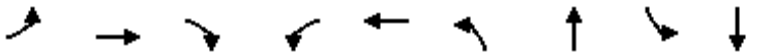
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SW 1
Volume Total	1166	1166	747	1079	1079	630
Volume Left	0	0	0	0	0	0
Volume Right	0	0	747	0	0	630
cSH	1700	1700	1700	1700	1700	214
Volume to Capacity	0.69	0.69	0.44	0.63	0.63	2.95
Queue Length 95th (ft)	0	0	0	0	0	1406
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	922.3
Lane LOS						F
Approach Delay (s)	0.0			0.0		922.3
Approach LOS						F

Intersection Summary				
Average Delay	99.0			
Intersection Capacity Utilization	100.2%	ICU Level of Service		G
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	858	0	0	794	0	221
Future Volume (Veh/h)	858	0	0	794	0	221
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2332	0	0	2158	0	601
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			2332		3411	1166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2332		3411	1166
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			209		5	187

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NE 1
Volume Total	1166	1166	1079	1079	601
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	601
cSH	1700	1700	1700	1700	187
Volume to Capacity	0.69	0.69	0.63	0.63	3.21
Queue Length 95th (ft)	0	0	0	0	Err
Control Delay (s)	0.0	0.0	0.0	0.0	Err
Lane LOS					F
Approach Delay (s)	0.0		0.0		Err
Approach LOS					F

Intersection Summary			
Average Delay	1180.4		
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	65	82	222	72	121	204	330	83	631
Future Volume (vph)	65	82	222	72	121	204	330	83	631
Lane Group Flow (vph)	166	252	631	205	432	580	1182	236	2566
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	60.0	60.0	60.0	60.0	60.0	40.0	60.0	40.0	60.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	18.2%	27.3%	18.2%	27.3%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	48.2	48.2	48.2	52.9	52.9	90.4	58.5	82.0	53.3
Actuated g/C Ratio	0.22	0.22	0.22	0.25	0.25	0.42	0.27	0.38	0.25
v/c Ratio	0.45	0.65	0.98	0.50	0.97	1.88	1.29	0.88	3.00
Control Delay	75.6	84.0	58.5	75.7	113.7	441.8	194.3	98.9	925.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.6	84.0	58.5	75.7	113.7	441.8	194.3	98.9	925.0
LOS	E	F	E	E	F	F	F	F	F
Approach Delay		67.3			101.5		275.8		855.5
Approach LOS		E			F		F		F
Queue Length 50th (ft)	216	346	417	261	628	~1245	~1183	287	~3399
Queue Length 95th (ft)	301	452	#644	351	#849	#1465	#1313	385	#3382
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	412	428	673	412	445	309	916	310	855
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.59	0.94	0.50	0.97	1.88	1.29	0.76	3.00

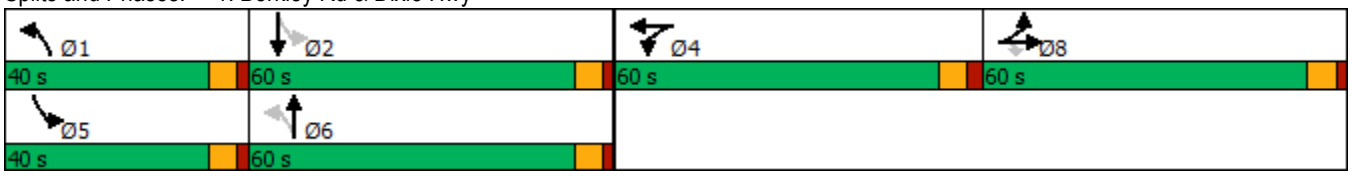
Intersection Summary	
Cycle Length: 220	
Actuated Cycle Length: 215.1	
Natural Cycle: 180	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.00	
Intersection Signal Delay: 482.9	Intersection LOS: F
Intersection Capacity Utilization 147.6%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Berkley Rd & Dixie Hwy

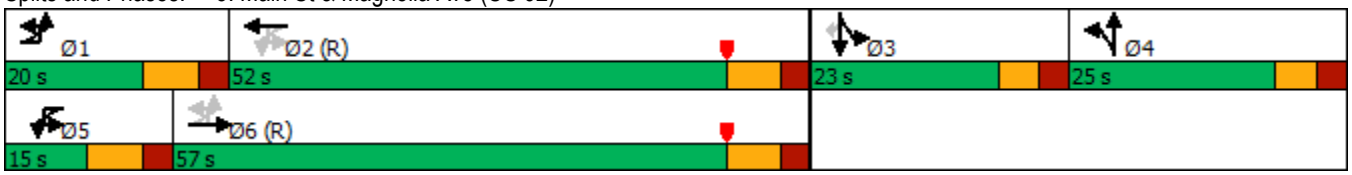


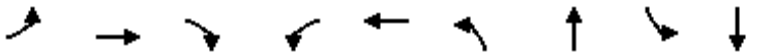
Lane Group	EBU	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Future Volume (vph)	1	118	993	1	72	1102	155	162	93	156	98
Lane Group Flow (vph)	0	320	2782	0	197	3110	417	537	225	444	263
Turn Type	pm+pt	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	1	6	5	5	2	4	4	3	3	
Permitted Phases	6	6		2	2						3
Detector Phase	1	1	6	5	5	2	4	4	3	3	3
Switch Phase											
Minimum Initial (s)	5.0	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	12.6	41.6	12.6	12.6	40.6	51.6	51.6	53.3	53.3	53.3
Total Split (s)	20.0	20.0	57.0	15.0	15.0	52.0	25.0	25.0	23.0	23.0	23.0
Total Split (%)	16.7%	16.7%	47.5%	12.5%	12.5%	43.3%	20.8%	20.8%	19.2%	19.2%	19.2%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	C-Max	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)		61.8	49.4		51.8	44.4	18.4	18.4	16.7	16.7	16.7
Actuated g/C Ratio		0.52	0.41		0.43	0.37	0.15	0.15	0.14	0.14	0.14
v/c Ratio		1.40	1.41		1.21	1.69	1.54	2.03	0.98	1.88	0.73
Control Delay		231.7	218.9		165.3	340.6	295.2	505.3	107.1	441.8	30.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		231.7	218.9		165.3	340.6	295.2	505.3	107.1	441.8	30.5
LOS		F	F		F	F	F	F	F	F	C
Approach Delay			220.2			330.2		413.5		244.9	
Approach LOS			F			F		F		F	
Queue Length 50th (ft)		~285	~1068		~138	~1304	~453	~654	185	~552	66
Queue Length 95th (ft)		#470	#1157		#292	#1389	#653	#873	#354	#768	#180
Internal Link Dist (ft)			1129			1072		1025		971	
Turn Bay Length (ft)		120			80		300		150		155
Base Capacity (vph)		229	1969		163	1840	271	264	229	236	361
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0
Reduced v/c Ratio		1.40	1.41		1.21	1.69	1.54	2.03	0.98	1.88	0.73

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 160	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.03	
Intersection Signal Delay: 289.1	Intersection LOS: F
Intersection Capacity Utilization 143.8%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)





Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	676	474	153	578	311	446	287	677
Future Volume (vph)	156	676	474	153	578	311	446	287	677
Lane Group Flow (vph)	429	1857	1302	420	2096	709	1461	712	2068
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	25.0	65.0	65.0	20.0	60.0	65.0	65.0	55.0	55.0
Total Split (%)	12.2%	31.7%	31.7%	9.8%	29.3%	31.7%	31.7%	26.8%	26.8%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	77.4	58.7	122.1	67.8	53.7	57.1	57.1	47.5	47.5
Actuated g/C Ratio	0.38	0.29	0.60	0.33	0.26	0.28	0.28	0.23	0.23
v/c Ratio	2.22	1.94	1.35	2.73	2.35	1.58	1.64	1.89	2.75
Control Delay	594.3	461.4	197.0	817.0	640.1	316.1	333.9	448.9	813.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	594.3	461.4	197.0	817.0	640.1	316.1	333.9	448.9	813.9
LOS	F	F	F	F	F	F	F	F	F
Approach Delay		381.4			669.6		328.1		720.4
Approach LOS		F			F		F		F
Queue Length 50th (ft)	~883	~2025	~2265	~913	~2432	~1487	~1563	~1606	~2613
Queue Length 95th (ft)	#1126	#2146	#2530	#1152	#2543	#1779	#1704	#1895	#2729
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	193	957	965	154	891	448	892	376	753
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.22	1.94	1.35	2.73	2.35	1.58	1.64	1.89	2.75

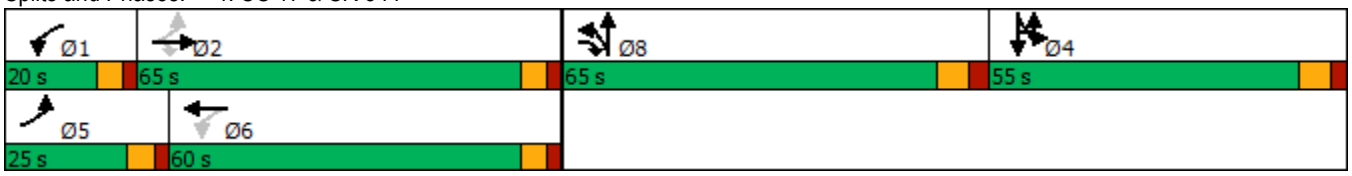
Intersection Summary	
Cycle Length: 205	
Actuated Cycle Length: 205	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.75	
Intersection Signal Delay: 521.8	Intersection LOS: F
Intersection Capacity Utilization 184.6%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544

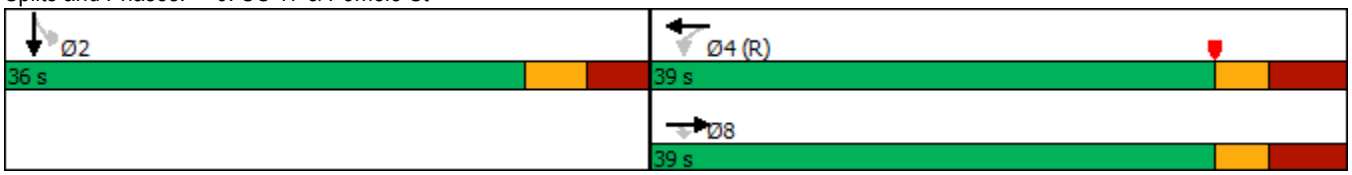


Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	103	802	2	599	896
Future Volume (vph)	103	802	2	599	896
Lane Group Flow (vph)	283	2203	0	1651	2641
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	39.0	39.0	39.0	39.0	36.0
Total Split (%)	52.0%	52.0%	52.0%	52.0%	48.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	Min
Act Effct Green (s)	31.5	31.5		31.5	29.0
Actuated g/C Ratio	0.42	0.42		0.42	0.39
v/c Ratio	0.40	3.33		2.20	1.39
Control Delay	17.3	1068.0		561.7	202.5
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	17.3	1068.0		561.7	202.5
LOS	B	F		F	F
Approach Delay	948.4			561.7	202.5
Approach LOS	F			F	F
Queue Length 50th (ft)	89	~1872		~1258	~617
Queue Length 95th (ft)	150	#2137		#1507	#715
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	706	661		752	1901
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.40	3.33		2.20	1.39

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 4 (5%), Referenced to phase 4:WBTL, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.33	
Intersection Signal Delay: 563.6	Intersection LOS: F
Intersection Capacity Utilization 268.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Future Volume (vph)	517	163	161	1	111	203	108	183	1202	80	98	998
Lane Group Flow (vph)	1375	434	428	0	298	540	287	519	3197	213	282	2654
Turn Type	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	3	8		7	7	4		1	6		5	2
Permitted Phases	8		8	4	4		4			6		
Detector Phase	3	8	8	7	7	4	4	1	6	6	5	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0
Total Split (s)	30.0	35.0	35.0	30.0	30.0	35.0	35.0	30.0	50.0	50.0	30.0	50.0
Total Split (%)	20.7%	24.1%	24.1%	20.7%	20.7%	24.1%	24.1%	20.7%	34.5%	34.5%	20.7%	34.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9		6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	51.8	28.7	28.7		50.6	28.1	28.1	21.0	42.0	42.0	21.0	42.0
Actuated g/C Ratio	0.36	0.20	0.20		0.35	0.19	0.19	0.14	0.29	0.29	0.14	0.29
v/c Ratio	2.21	1.26	0.88		0.94	1.51	0.64	2.04	2.28	0.36	1.31	1.94
Control Delay	575.4	185.2	44.3		79.3	283.7	20.8	512.8	601.7	6.5	216.1	456.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	575.4	185.2	44.3		79.3	283.7	20.8	512.8	601.7	6.5	216.1	456.2
LOS	F	F	D		E	F	C	F	F	A	F	F
Approach Delay		398.1				162.5			557.7			463.4
Approach LOS		F				F			F			F
Queue Length 50th (ft)	~1037	~519	191		230	~708	53	~768	~1790	0	~341	~1414
Queue Length 95th (ft)	#1176	#737	#388		#408	#937	160	#995	#1860	62	#529	#1496
Internal Link Dist (ft)		1032				1401			1080			1389
Turn Bay Length (ft)	525		580		600		390	800		860	790	
Base Capacity (vph)	621	344	489		323	357	445	254	1404	592	215	1365
Starvation Cap Reductn	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
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.21	1.26	0.88		0.92	1.51	0.64	2.04	2.28	0.36	1.31	1.94

Intersection Summary		
Cycle Length: 145		
Actuated Cycle Length: 145		
Natural Cycle: 145		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 2.28		
Intersection Signal Delay: 453.6	Intersection LOS: F	
Intersection Capacity Utilization 164.5%	ICU Level of Service H	
Analysis Period (min) 15		
~ Volume exceeds capacity, queue is theoretically infinite.		

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	547
Future Volume (vph)	547
Lane Group Flow (vph)	1455
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	41.0
Total Split (s)	50.0
Total Split (%)	34.5%
Yellow Time (s)	6.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	8.0
Lead/Lag	Lag
Lead-Lag Optimize?	
Recall Mode	Min
Act Effct Green (s)	42.0
Actuated g/C Ratio	0.29
v/c Ratio	2.11
Control Delay	524.3
Queue Delay	0.0
Total Delay	524.3
LOS	F
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	~1936
Queue Length 95th (ft)	#2207
Internal Link Dist (ft)	
Turn Bay Length (ft)	880
Base Capacity (vph)	690
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	2.11

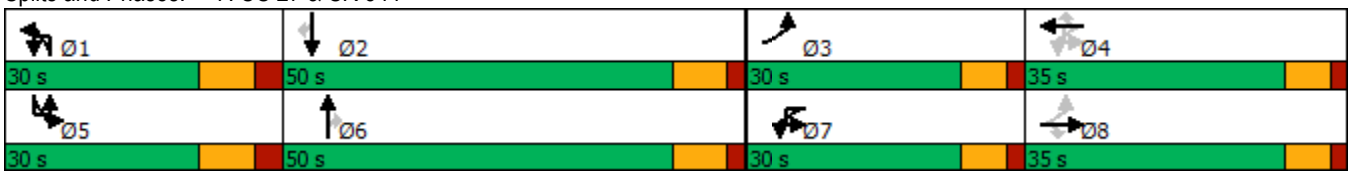
Intersection Summary

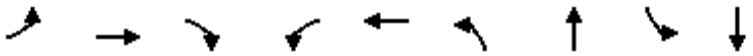
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544



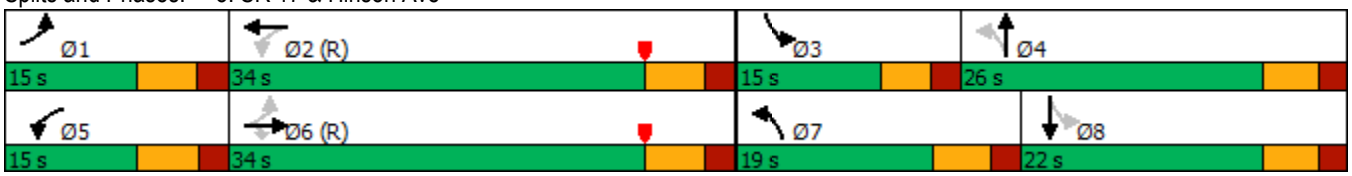


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	31	384	75	141	490	156	172	59	157
Future Volume (vph)	31	384	75	141	490	156	172	59	157
Lane Group Flow (vph)	88	1091	213	401	1415	443	821	168	597
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	15.0	34.0	34.0	15.0	34.0	19.0	26.0	15.0	22.0
Total Split (%)	16.7%	37.8%	37.8%	16.7%	37.8%	21.1%	28.9%	16.7%	24.4%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	35.6	27.8	27.8	38.6	31.3	33.8	20.6	25.8	16.2
Actuated g/C Ratio	0.40	0.31	0.31	0.43	0.35	0.38	0.23	0.29	0.18
v/c Ratio	0.39	2.10	0.37	1.63	2.23	1.32	1.95	0.64	1.81
Control Delay	18.7	524.5	8.2	308.3	576.2	187.9	457.9	31.2	401.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	524.5	8.2	308.3	576.2	187.9	457.9	31.2	401.4
LOS	B	F	A	F	F	F	F	C	F
Approach Delay		413.5			517.1		363.2		320.1
Approach LOS		F			F		F		F
Queue Length 50th (ft)	27	~994	16	~297	~1346	~283	~728	62	~515
Queue Length 95th (ft)	52	#1199	65	m#145	m#748	#454	#928	106	#701
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	248	519	577	246	634	335	422	270	330
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	2.10	0.37	1.63	2.23	1.32	1.95	0.62	1.81

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 12 (13%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow		
Natural Cycle: 150		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 2.23		
Intersection Signal Delay: 423.6	Intersection LOS: F	
Intersection Capacity Utilization 140.3%	ICU Level of Service H	
Analysis Period (min) 15		

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SR 17 & Hinson Ave

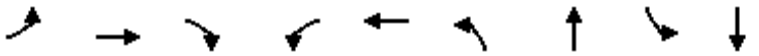


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	363	200	7	343	15	21	71	20	324
Future Volume (vph)	363	200	7	343	15	21	71	20	324
Lane Group Flow (vph)	976	557	19	1223	0	104	191	54	871
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	23.0	65.0	42.0	42.0	25.0	25.0	25.0	25.0	25.0
Total Split (%)	25.6%	72.2%	46.7%	46.7%	27.8%	27.8%	27.8%	27.8%	27.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	58.3	58.3	35.3	35.3		18.4	18.3	18.3	18.3
Actuated g/C Ratio	0.65	0.65	0.39	0.39		0.20	0.20	0.20	0.20
v/c Ratio	2.52	0.48	0.06	1.74		0.35	0.76	0.14	1.44
Control Delay	702.3	11.2	17.7	364.4		33.5	54.6	30.6	225.4
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	702.3	11.2	17.7	364.4		33.5	54.6	30.6	225.4
LOS	F	B	B	F		C	D	C	F
Approach Delay		451.2		359.1		33.5		186.7	
Approach LOS		F		F		C		F	
Queue Length 50th (ft)	~918	241	7	~1049		49	103	25	~499
Queue Length 95th (ft)	m#389	m109	21	#1300		97	#210	57	#730
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	387	1169	339	701		296	252	386	606
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	2.52	0.48	0.06	1.74		0.35	0.76	0.14	1.44

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 5 (6%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.52	
Intersection Signal Delay: 337.8	Intersection LOS: F
Intersection Capacity Utilization 145.7%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: US 17 & E Hinson Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	203	133	215	73	109	255	607	53	438
Future Volume (vph)	203	133	215	73	109	255	607	53	438
Lane Group Flow (vph)	447	466	584	198	416	693	1910	144	1416
Turn Type	Split	NA	Perm	Split	NA	pm+pt	NA	pm+pt	NA
Protected Phases	8	8		4	4	1	6	5	2
Permitted Phases			8			6		2	
Detector Phase	8	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	7.0	15.0	7.0	15.0
Minimum Split (s)	53.8	53.8	53.8	54.0	54.0	13.5	53.8	13.5	53.8
Total Split (s)	60.0	60.0	60.0	60.0	60.0	40.0	60.0	40.0	60.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	18.2%	27.3%	18.2%	27.3%
Yellow Time (s)	4.8	4.8	4.8	4.5	4.5	4.5	4.8	4.5	4.8
All-Red Time (s)	2.0	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	7.0	7.0	6.5	6.8	6.5	6.8
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Min	None	Min
Act Effct Green (s)	53.2	53.2	53.2	51.6	51.6	93.5	67.4	72.8	53.2
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.43	0.31	0.33	0.24
v/c Ratio	1.08	1.09	1.04	0.50	0.97	2.34	1.79	0.77	1.69
Control Delay	141.5	143.2	92.7	77.4	115.2	642.0	397.0	86.3	360.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	141.5	143.2	92.7	77.4	115.2	642.0	397.0	86.3	360.0
LOS	F	F	F	E	F	F	F	F	F
Approach Delay		123.0			103.0		462.2		334.8
Approach LOS		F			F		F		F
Queue Length 50th (ft)	~763	~802	~632	251	592	~1598	~2187	157	~1582
Queue Length 95th (ft)	#1022	#1064	#895	349	#824	#1864	#2397	239	#1714
Internal Link Dist (ft)		978			999		1325		1363
Turn Bay Length (ft)	200		200	240		600		935	
Base Capacity (vph)	413	427	561	405	441	296	1068	299	836
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	1.09	1.04	0.49	0.94	2.34	1.79	0.48	1.69

Intersection Summary	
Cycle Length: 220	
Actuated Cycle Length: 218.6	
Natural Cycle: 180	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.34	
Intersection Signal Delay: 314.4	Intersection LOS: F
Intersection Capacity Utilization 138.6%	ICU Level of Service H
Analysis Period (min) 15	

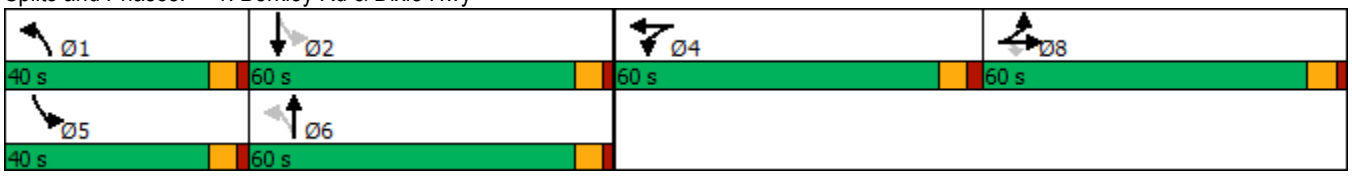
~ Volume exceeds capacity, queue is theoretically infinite.

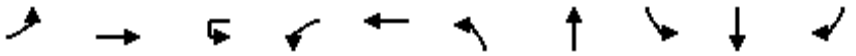
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Berkley Rd & Dixie Hwy



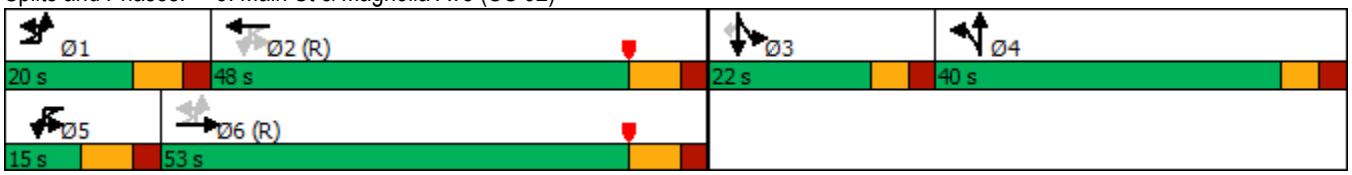


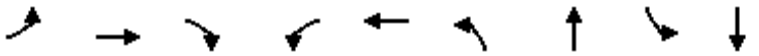
Lane Group	EBL	EBT	WBU	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Future Volume (vph)	160	1318	3	43	1250	111	185	154	102	102
Lane Group Flow (vph)	417	3554	0	120	3578	289	602	329	338	266
Turn Type	pm+pt	NA	pm+pt	pm+pt	NA	Split	NA	Split	NA	Perm
Protected Phases	1	6	5	5	2	4	4	3	3	
Permitted Phases	6		2	2						3
Detector Phase	1	6	5	5	2	4	4	3	3	3
Switch Phase										
Minimum Initial (s)	5.0	12.0	5.0	5.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.6	38.6	12.6	12.6	37.6	48.6	48.6	50.3	50.3	50.3
Total Split (s)	20.0	53.0	15.0	15.0	48.0	40.0	40.0	22.0	22.0	22.0
Total Split (%)	15.4%	40.8%	11.5%	11.5%	36.9%	30.8%	30.8%	16.9%	16.9%	16.9%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.6	2.6	2.6
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.6	7.6		7.6	7.6	6.6	6.6	6.3	6.3	6.3
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?										
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	57.8	45.4		47.8	40.4	33.4	33.4	15.7	15.7	15.7
Actuated g/C Ratio	0.44	0.35		0.37	0.31	0.26	0.26	0.12	0.12	0.12
v/c Ratio	1.87	1.97		0.88	2.34	0.64	1.32	1.64	1.64	0.77
Control Delay	432.7	465.9		79.4	628.6	50.6	195.8	343.6	344.7	34.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	432.7	465.9		79.4	628.6	50.6	195.8	343.6	344.7	34.6
LOS	F	F		E	F	D	F	F	F	C
Approach Delay		462.4			610.7		148.7		255.9	
Approach LOS		F			F		F		F	
Queue Length 50th (ft)	~489	~1718		58	~1822	218	~651	~421	~432	71
Queue Length 95th (ft)	#698	#1789		#176	#1892	318	#884	#620	#633	#197
Internal Link Dist (ft)		1129			1072		1025		971	
Turn Bay Length (ft)	120			80		300		150		155
Base Capacity (vph)	223	1801		136	1528	450	457	201	206	345
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0
Reduced v/c Ratio	1.87	1.97		0.88	2.34	0.64	1.32	1.64	1.64	0.77

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 104 (80%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 155	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.34	
Intersection Signal Delay: 470.4	Intersection LOS: F
Intersection Capacity Utilization 161.6%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Main St & Magnolia Ave (US 92)





Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	156	758	316	117	591	398	667	216	650
Future Volume (vph)	156	758	316	117	591	398	667	216	650
Lane Group Flow (vph)	406	1974	823	305	2021	932	1945	507	1955
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Split	NA	Split	NA
Protected Phases	5	2	8	1	6	8	8	4	4
Permitted Phases	2		2	6					
Detector Phase	5	2	8	1	6	8	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	8.0	10.0	5.0	8.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	40.3	38.9	11.1	37.3	38.9	38.9	51.5	51.5
Total Split (s)	25.0	65.0	65.0	20.0	60.0	65.0	65.0	55.0	55.0
Total Split (%)	12.2%	31.7%	31.7%	9.8%	29.3%	31.7%	31.7%	26.8%	26.8%
Yellow Time (s)	4.1	4.1	4.9	4.1	4.1	4.9	4.9	4.9	4.9
All-Red Time (s)	2.2	2.2	3.0	2.0	2.2	3.0	3.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	7.9	6.1	6.3	7.9	7.9	7.5	7.5
Lead/Lag	Lead	Lag		Lead	Lag				
Lead-Lag Optimize?									
Recall Mode	None	Min	None	None	Min	None	None	None	None
Act Effct Green (s)	77.4	58.7	122.1	67.8	53.7	57.1	57.1	47.5	47.5
Actuated g/C Ratio	0.38	0.29	0.60	0.33	0.26	0.28	0.28	0.23	0.23
v/c Ratio	2.10	2.04	0.85	1.99	2.27	2.08	2.14	1.36	2.60
Control Delay	543.0	505.7	42.0	499.2	603.5	525.8	547.6	232.5	751.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	543.0	505.7	42.0	499.2	603.5	525.8	547.6	232.5	751.0
LOS	F	F	D	F	F	F	F	F	F
Approach Delay		391.3			589.8		540.5		644.3
Approach LOS		F			F		F		F
Queue Length 50th (ft)	~818	~2191	849	~591	~2320	~2171	~2300	~983	~2438
Queue Length 95th (ft)	#1058	#2305	1094	#811	#2434	#2465	#2423	#1256	#2560
Internal Link Dist (ft)		1186			1594		1384		1534
Turn Bay Length (ft)	400			450		320		320	
Base Capacity (vph)	193	966	965	153	891	448	909	373	751
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.10	2.04	0.85	1.99	2.27	2.08	2.14	1.36	2.60

Intersection Summary	
Cycle Length: 205	
Actuated Cycle Length: 205	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.60	
Intersection Signal Delay: 530.6	Intersection LOS: F
Intersection Capacity Utilization 198.3%	ICU Level of Service H
Analysis Period (min) 15	

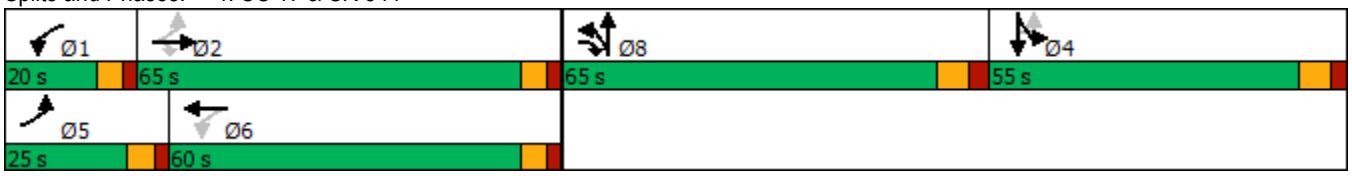
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: US 17 & SR 544

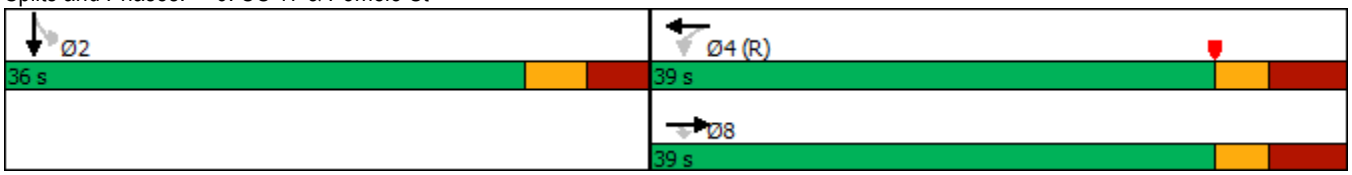


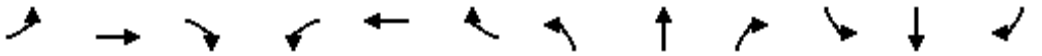
Lane Group	EBT	EBR	WBL	WBT	SBT
Lane Configurations					
Traffic Volume (vph)	92	768	9	543	824
Future Volume (vph)	92	768	9	543	824
Lane Group Flow (vph)	250	2087	0	1500	2423
Turn Type	NA	Perm	Perm	NA	NA
Protected Phases	8			4	2
Permitted Phases		8	4		
Detector Phase	8	8	4	4	2
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.5	30.5	29.5	29.5	33.0
Total Split (s)	39.0	39.0	39.0	39.0	36.0
Total Split (%)	52.0%	52.0%	52.0%	52.0%	48.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5
All-Red Time (s)	4.5	4.5	4.5	4.5	3.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5		7.5	7.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	Min
Act Effct Green (s)	31.5	31.5		31.5	29.0
Actuated g/C Ratio	0.42	0.42		0.42	0.39
v/c Ratio	0.45	2.96		1.99	1.29
Control Delay	18.8	901.7		470.5	158.6
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	18.8	901.7		470.5	158.6
LOS	B	F		F	F
Approach Delay	807.2			470.5	158.6
Approach LOS	F			F	F
Queue Length 50th (ft)	80	~1732		~1108	~540
Queue Length 95th (ft)	142	#1996		#1352	#638
Internal Link Dist (ft)	385			461	175
Turn Bay Length (ft)		280			
Base Capacity (vph)	558	705		754	1879
Starvation Cap Reductn	0	0		0	0
Spillback Cap Reductn	0	0		0	0
Storage Cap Reductn	0	0		0	0
Reduced v/c Ratio	0.45	2.96		1.99	1.29

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 4 (5%), Referenced to phase 4:WBTL, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.96	
Intersection Signal Delay: 475.5	Intersection LOS: F
Intersection Capacity Utilization 253.5%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Pomelo St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Future Volume (vph)	498	203	121	100	165	98	136	1266	115	122	1293	539
Lane Group Flow (vph)	1297	529	315	260	430	255	396	3297	299	334	3367	1404
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4			6			2
Detector Phase	3	8	8	7	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	11.9	52.9	52.9	11.9	55.9	55.9	14.0	37.0	37.0	14.0	41.0	41.0
Total Split (s)	30.0	35.0	35.0	30.0	35.0	35.0	30.0	50.0	50.0	30.0	50.0	50.0
Total Split (%)	20.7%	24.1%	24.1%	20.7%	24.1%	24.1%	20.7%	34.5%	34.5%	20.7%	34.5%	34.5%
Yellow Time (s)	4.9	4.9	4.9	4.9	4.9	4.9	6.0	6.0	6.0	6.0	6.0	6.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.9	6.9	6.9	6.9	9.0	8.0	8.0	9.0	8.0	8.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	53.2	30.3	30.3	49.0	28.1	28.1	21.0	42.0	42.0	21.0	42.0	42.0
Actuated g/C Ratio	0.37	0.21	0.21	0.34	0.19	0.19	0.14	0.29	0.29	0.14	0.29	0.29
v/c Ratio	2.09	1.43	0.64	0.88	1.21	0.57	1.57	2.35	0.45	1.51	2.42	1.99
Control Delay	520.3	247.9	21.6	67.6	167.9	13.8	314.5	633.0	6.3	292.6	664.8	472.2
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	520.3	247.9	21.6	67.6	167.9	13.8	314.5	633.0	6.3	292.6	664.8	472.2
LOS	F	F	C	E	F	B	F	F	A	F	F	F
Approach Delay		379.6			98.7			554.4			587.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~962	~699	70	188	~496	19	~529	~1862	0	~438	~1916	~1805
Queue Length 95th (ft)	#1102	#928	183	#325	#711	107	#738	#1929	72	#637	#1983	#2075
Internal Link Dist (ft)		1032			1401			1080			1389	
Turn Bay Length (ft)	525		580	600		390	800		860	790		880
Base Capacity (vph)	621	371	489	323	354	451	252	1404	662	221	1391	705
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	2.09	1.43	0.64	0.80	1.21	0.57	1.57	2.35	0.45	1.51	2.42	1.99

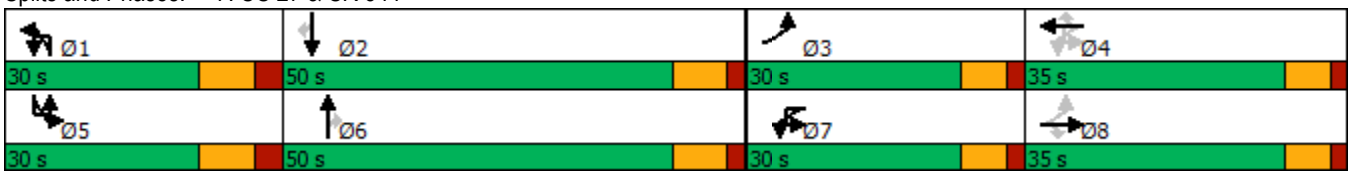
Intersection Summary		
Cycle Length: 145		
Actuated Cycle Length: 145		
Natural Cycle: 145		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 2.42		
Intersection Signal Delay: 502.2	Intersection LOS: F	
Intersection Capacity Utilization 166.4%	ICU Level of Service H	
Analysis Period (min) 15		
~ Volume exceeds capacity, queue is theoretically infinite.		

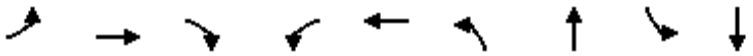
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: US 27 & SR 544



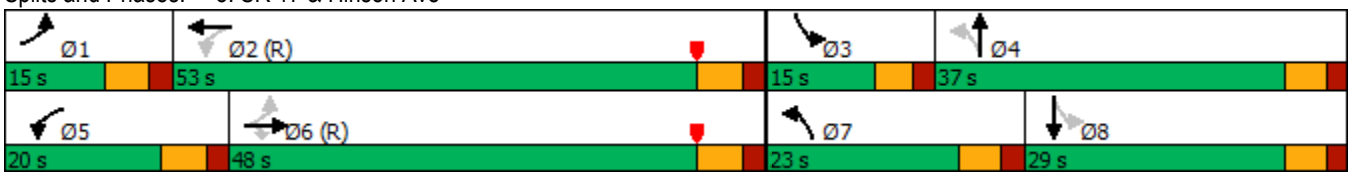


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	571	128	164	515	169	152	92	260
Future Volume (vph)	32	571	128	164	515	169	152	92	260
Lane Group Flow (vph)	82	1457	327	418	1347	431	868	235	798
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6		5	2	7	4	3	8
Permitted Phases	6		6	2		4		8	
Detector Phase	1	6	6	5	2	7	4	3	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	5.0	12.0	5.0	7.0	5.0	7.0
Minimum Split (s)	11.1	30.2	30.2	11.1	30.2	10.8	26.8	10.4	33.8
Total Split (s)	15.0	48.0	48.0	20.0	53.0	23.0	37.0	15.0	29.0
Total Split (%)	12.5%	40.0%	40.0%	16.7%	44.2%	19.2%	30.8%	12.5%	24.2%
Yellow Time (s)	4.0	4.1	4.1	4.1	4.1	3.8	3.8	3.4	3.8
All-Red Time (s)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.2	6.2	6.1	6.2	5.8	5.8	5.4	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	Max
Act Effct Green (s)	49.8	41.8	41.8	61.3	50.2	46.2	31.2	33.2	23.2
Actuated g/C Ratio	0.42	0.35	0.35	0.51	0.42	0.38	0.26	0.28	0.19
v/c Ratio	0.48	2.29	0.50	1.63	1.78	1.41	1.84	1.15	2.31
Control Delay	26.6	608.1	16.0	314.6	378.7	230.9	414.0	139.4	620.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	608.1	16.0	314.6	378.7	230.9	414.0	139.4	620.5
LOS	C	F	B	F	F	F	F	F	F
Approach Delay		478.8			363.5		353.3		511.1
Approach LOS		F			F		F		F
Queue Length 50th (ft)	31	~1836	82	~429	~1592	~400	~999	~161	~1014
Queue Length 95th (ft)	63	#2100	172	m#254	m#1019	#605	#1248	#328	#1260
Internal Link Dist (ft)		592			1623		387		526
Turn Bay Length (ft)				600				175	
Base Capacity (vph)	186	636	650	256	755	306	471	204	346
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	2.29	0.50	1.63	1.78	1.41	1.84	1.15	2.31

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 29 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.31	
Intersection Signal Delay: 422.9	Intersection LOS: F
Intersection Capacity Utilization 183.4%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: SR 17 & Hinson Ave



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	354	346	4	272	33	43	130	94	365
Future Volume (vph)	354	346	4	272	33	43	130	94	365
Lane Group Flow (vph)	922	924	10	994	0	219	339	245	951
Turn Type	pm+pt	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases	1	6		2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	1	6	2	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.7	35.7	35.7	35.7	29.6	29.6	32.7	32.7	32.7
Total Split (s)	37.0	81.0	44.0	44.0	39.0	39.0	39.0	39.0	39.0
Total Split (%)	30.8%	67.5%	36.7%	36.7%	32.5%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.7	2.7	2.7	2.7	2.6	2.6	2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.7	6.7	6.7		6.6	6.7	6.7	6.7
Lead/Lag	Lead		Lag	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	74.3	74.3	37.3	37.3		32.4	32.3	32.3	32.3
Actuated g/C Ratio	0.62	0.62	0.31	0.31		0.27	0.27	0.27	0.27
v/c Ratio	1.89	0.82	0.07	1.81		0.79	1.23	0.48	1.21
Control Delay	421.9	25.1	31.3	399.0		61.8	170.3	40.6	123.8
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	421.9	25.1	31.3	399.0		61.8	170.3	40.6	123.8
LOS	F	C	C	F		E	F	D	F
Approach Delay		223.3		395.3		61.8		120.8	
Approach LOS		F		F		E		F	
Queue Length 50th (ft)	~1085	658	5	~1161		155	~324	160	~587
Queue Length 95th (ft)	m324	m266	20	#1417		#287	#511	241	#841
Internal Link Dist (ft)		1623		842		537		1014	
Turn Bay Length (ft)	300		100						250
Base Capacity (vph)	489	1133	134	549		276	275	511	788
Starvation Cap Reductn	0	0	0	0		0	0	0	0
Spillback Cap Reductn	0	0	0	0		0	0	0	0
Storage Cap Reductn	0	0	0	0		0	0	0	0
Reduced v/c Ratio	1.89	0.82	0.07	1.81		0.79	1.23	0.48	1.21

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 5 (4%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.89	
Intersection Signal Delay: 218.9	Intersection LOS: F
Intersection Capacity Utilization 153.3%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: US 17 & E Hinson Ave

APPENDIX K

Study Crash Modification Factors (CMFs) and Supporting Documentation

Evaluation of Bicycle-Related Roadway Measures: A Summary of Available Research

February 2014

Jill Mead
Ann McGrane
Charlie Zegeer
Libby Thomas

For:
Federal Highway Administration
DTFH61-11-H-00024

percent of Portland's road network, approximately nine percent of all travel recorded by the GPS devices occurred on bicycle boulevards (2).

Table 1: Distribution of recorded bicycle travel by facility type, compared to network mileage

	% of bicycle travel (miles)		
	All travel (%)	*Utilitarian travel (%)*	*% of network*
Roads without bicycle infrastructure	51	48	92
Primary roads/highways, no bicycle lanes	4	3	4
Secondary roads, no bicycle lanes	19	16	13
Minor streets, no bicycle lanes	27	28	63
Driveways, alleys, unimproved roads	2	1	12
Bicycle infrastructure	49	52	8
Primary roads/highways, with bicycle lanes	9	9	3
Secondary roads, with bicycle lanes	14	15	2
Minor streets, with bicycle lanes	3	3	1
Bicycle/multi-use paths	14	14	2
Bicycle boulevards	9	10	<1
N (miles)	7,479	6,131	10,564

Figure 49. Percent bicycle travel miles by facility type, compared to percent of network mileage.

[Caption: Table 1 from Dill (2009) showing that bicycle boulevards captured nine percent of bicycle travel miles, despite comprising less than one percent of bicycle network infrastructure (2).]

References

1. Minikel, E. Cyclist Safety on Bicycle Boulevards and Parallel Arterial Routes in Berkeley, California. Presented at the 90th Annual Meeting of the Transportation Research Board. 2011. http://www.sciencedirect.com/science/article/pii/S0001457511001941. Accessed Aug 13, 2012.
2. Dill, J. Bicycling for Transportation and Health: The Role of Infrastructure. *Journal of Public Health*, 2009. http://www.palgrave-journals.com/jphp/journal/v30/nS1/pdf/jphp200856a.pdf. Accessed Aug 20, 2012.

5.5 Visual Narrowing

There are currently no resources for this section.

6.0 Trails/Shared-Use Paths

6.1 Separate Shared-Use Path

A 1994 article by Tinsworth, Cassidy, and Polen discussed the results of a study by the U.S. Consumer Product Safety Commission to determine which circumstances were associated with bicycle-related injuries. Nearly 600 cases of bicycle injury data from 90 U.S. hospital emergency rooms were identified using the National Electronic Injury Surveillance System (NEISS). Of those cases, investigators were able to collect data about injury circumstances from 474 bicyclists, and of those, 420 met all inclusion criteria. Relative risk was computed for different factors associated with

bicyclist injuries, including bike paths. For children, it was found that riding on a bike path was associated with an 88 percent reduction in the risk of injury when compared to riding in the street. For adults, it was found that riding on a bike path was associated with an 86 percent reduction in the risk of injury when compared to riding in the street. The authors concluded that, in the interest of bicyclist injury prevention, it would be reasonable to encourage bicycle use on lower-risk infrastructure (1).

Figure 50. Bicyclist on a separate shared-use path.

[Caption: A bicyclist uses the 12.3 mile Elyria-Oberlin-Kipton bike path in northern Ohio. Photo by Ed Chadwick. http://www.flickr.com/photos/67278751@N00/539644733]

In a similar vein, Rodgers (1997) evaluated the association between bike paths/lanes and adult bicyclist crash risk. Analysis data came from a mail survey conducted in 1990. Qualifying respondents were at least 18 years old and owned bicycles that had been new when purchased. Nearly 3,000 in-depth questionnaires were collected, which provided information about falls or crashes experienced within the previous year as well as primary riding surface. Over nine percent of respondents reported a crash or fall in the previous year. Results of data analysis showed that bike paths/lanes (which were studied together), were associated with a 40 percent reduction in the risk of falls or crashes when compared to riding on roadways (OR: 0.60, CI: 0.38-0.95), results which were significant at the 0.05 level. Three potential limitations were the self-report of results, the lack of injury data, and the lack of differentiation between bike paths and bike lanes. The authors concluded that the higher risk of crashes and falls on the roadway compared to bike paths/lanes indicates the importance of the riding environment on bicyclist safety (2).

References

1. Tinsworth, D. K., S. P. Cassidy, and C. Polen. Bicycle-Related Injuries: Injury, Hazard, and Risk Patterns. *International Journal for Consumer and Product Safety*. Vol. 1, No. 4, 1994, pp. 207-220.
2. Rodgers, G. B. Factors Associations with the Crash Risk of Adult Bicyclists. *Journal of Safety Research*. Vol. 28, No. 4, 1997, pp. 233-241.

6.2 Path Intersection Treatments

Crossings between paths and major roadways can be particularly dangerous for bicyclists. Two recent studies have evaluated treatments for improving the visibility of path crossings. Researchers at the UNC Highway Safety Research Center (Hunter, Srinivasan, and Martell, 2012) evaluated the effectiveness of rectangular rapid flash beacons (RRFBs) for a mid-block crossing of a multi-use trail with significant bicycle traffic in St. Petersburg, FL. The RRFBs were evaluated through a before and after study of motorist yielding rates. When the beacon was activated, there was a motorist yielding rate of 54 percent (an increase of 2% from pre-installation). Trail users were also trapped in the middle of the intersection less often. Considering that only 32 percent of trail users pushed the button to activate the beacon, the authors concluded that some educational follow-up may be necessary to achieve better results (1).

A 2012 presentation by Dougald, Dittberner, and Sripathi detailed an experimental zig-zag pavement marking treatment in Loudoun County, Virginia. In 2009, the Virginia Department of Transportation installed the markings at two locations where pedestrians and bicyclists use the Washington and Old Dominion Trail to cross area highways. Researchers measured vehicle speeds and driver attitudes pre- and post-treatment. They concluded that the use of the markings increased motorist awareness of the crossings, as evidenced by lower mean vehicle speeds and self-reported yielding behavior. However, surveys revealed limited driver understanding of the markings' purpose (2).

Figure 51: Zig-zag roadway markings in Virginia.

[Photo caption: The zig-zag markings used by the Virginia Department of Transportation to increase motorist awareness. Photo by the Virginia Department of Transportation.]
http://www.virginiadot.org/vtrc/main/online_reports/pdf/11-r9.pdf

References

1. Hunter, W.W., R. Srinivasan, and C.A. Martell. Evaluation of the Rectangular Rapid Flash Beacon at a Pinellas Trail Crossing in St. Petersburg, Florida. Presented at 91st Annual Meeting of the Transportation Research Board, Washington, D.C., 2012.
2. Dougald, L. E., R. A. Dittberner, and H. K. Sripathi. Creating Safer Mid-Block Pedestrian and Bicycle Crossing Environments: The Zig-Zag Pavement Marking Experiment. Presented at 91st Annual Meeting of the Transportation Research Board, Washington, D.C., 2012.

6.3 Share the Path Treatments

There are currently no resources for this section.

7.0 Markings, Signs, and Signals

7.1 Rectangular Rapid Flashing Beacon (RRFB)

While the majority of studies to evaluate rectangular rapid flashing beacons (RRFBs) focus on their pedestrian safety benefits, the beacons' ability to increase motorist yielding at midblock crossings benefits bicyclists crossing at RRFB locations as well.

A 2009 report by Hunter, Srinivasan, and Martell summarized the effects of installing a pedestrian-activated RRFB at the location of one uncontrolled trail crossing at a busy (15,000 ADT), four-lane urban street in St. Petersburg, Florida. The researchers used a mounted video camera to collect pre- and post-treatment data about trail user (bicyclists and pedestrians) and driver interactions at the trail crossing. Analysis of the data showed a statistically significant reduction in trail user crossing delay, as well as a statistically significant ($p<0.001$) increase in motorist yielding (from 2 percent pre-treatment to 35 percent post-treatment, and 54 percent when the beacon was activated). The researchers concluded that there was an increase in safety at the intersection as a result of installing the RRFB (1).

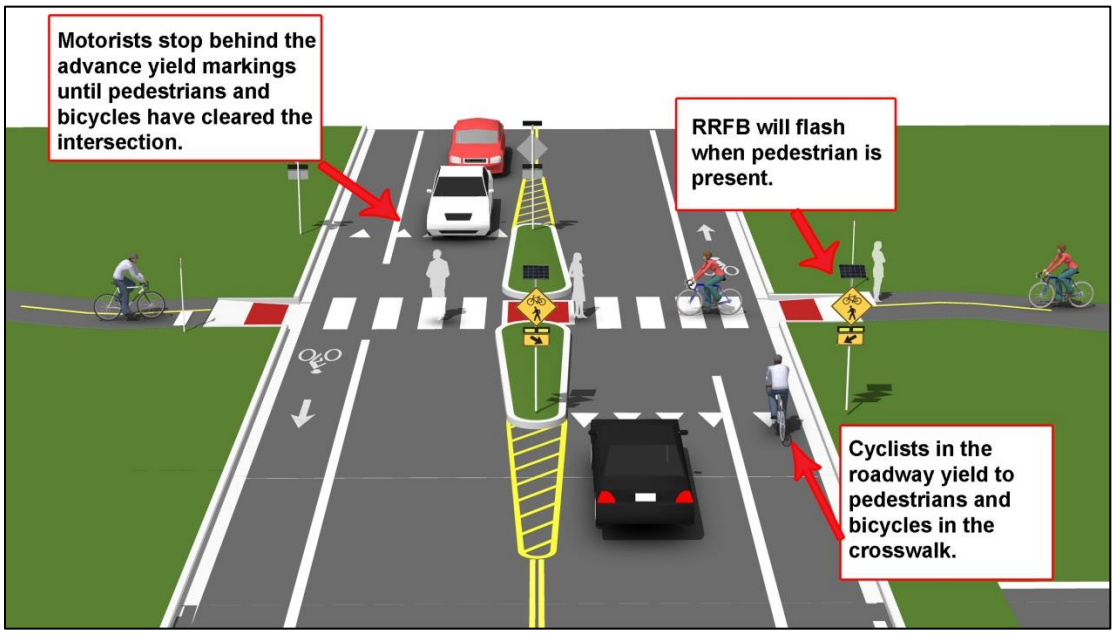


Figure 52. Diagram showing the intersection of a trail and roadway enhanced with an RRFB.

[Caption: Diagram by the city of Bloomington, Indiana.
http://bloomington.in.gov/documents/viewDocument.php?document_id=7158]

A 2010 report by the Federal Highway Administration by Shurbutt and Van Houten reported on the effects of installing RRFBs at 22 multilane, uncontrolled crosswalks in St. Petersburg, Florida; Washington, D.C.; and Mundelein, Illinois. On average across all sites, 4 percent of drivers yielded to pedestrians pre-treatment, while at the two-year follow-up, an average of 84 percent of drivers yielded to pedestrians at all sites, demonstrating the measure's maintenance of effect over time. Data collected at night showed an increase in driver yielding behavior from 4.8 percent pre-treatment to 84.6 percent (two-beacon RRFB) and 99.5 percent (four-beacon RRFB) post-treatment. The authors

concluded that the RRFB appeared to be an effective tool for greatly increasing the number of drivers yielding to pedestrians at uncontrolled crosswalks (2).

A 2011 Oregon Department of Transportation report by Ross, Serpico, and Lewis evaluated RRFB installation at three Bend, Oregon, crosswalks where signs and pavement markings were also improved. Data were collected by observing the crosswalks and also by using staged pedestrian crossings to assess motorist yielding behavior and speed. Prior to the installation of the RRFBs, the average motorist yielding rate across study sites was 17.8 percent. Following the installation of RRFBs, the average yielding rate across sites increased to 79.9 percent. Average motorist speed decreased at only one of the sites. No tests of statistical significance were conducted. Based on their findings, the authors suggested that that RRFBs should be considered for facilities where posted speeds exceed 35 miles per hour, if pedestrians and bicyclists use the facilities and there is the potential for, or history of, collisions They also recommended that RRFB installation should take place concurrently with other measures to improve the visibility of the crossing (3).

Figure 53. Push button activation of the rectangular rapid flashing beacon (left) and the beacon under the sign (right).

[Caption: (Right) Figure 2.6 from the Ross, Serpico, and Lewis report showing the push button used to activate the RRFBs evaluated in their study (3). (Left) Close up photograph of the modified bicycle-and-pedestrian warning sign and beacon.]

Figure 54. A rectangular rapid flashing beacon installation site in Bend, Oregon.

[Caption: Figure 3.3. from Ross, Serpico, and Lewis (2011) showing a bicyclist crossing at an RRFB in Bend, Oregon (3).]

References

1. Hunter, W. W., R. Srinivasan and C. A. Martell. *Evaluation of the Rectangular Rapid Flash Beacon at a Pinellas Trail Crossing in St. Petersburg, Florida.* Florida Department of Transportation, Tallahassee, Florida, 2009. http://katana.hsrc.unc.edu/cms/downloads/FDOT_BA784%20EvaluationRectangularRapidFlashBeaconStPetersburgFlorida.pdf
2. Shurbutt, J., and R. Van Houten. *Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks.* Publication FHWA-HRT-10-043, FHWA, U.S. Department of Transportation, 2010.
3. Ross, J., D. Serpico, and R. Lewis. *Assessment of Driver Yielding Rates Pre- and Post-RRFB Installation, Bend, Oregon.* Oregon Department of Transportation, Salem, Oregon, 2011.

7.2 Pedestrian Hybrid Beacon (HAWK Signal)

As the name suggests, the pedestrian hybrid beacon (PHB) was developed to enhance pedestrian safety where minor streets intersect with major arterials. However, the significant increase in motorist yielding at locations where PHBs have been installed greatly enhances safety for those crossing on bicycles as well.

A 2006 report by Fitzpatrick et al. evaluated various midblock crossing treatments, including the PHB, in terms of their effect on pedestrian safety. The researchers used trained data collectors and video recordings to collect motorist and pedestrian behavior data at five PHB sites in Tucson, Arizona. Post-treatment data were collected for staged and non-staged pedestrian crossings, and measures of effectiveness such as pedestrian crosswalk compliance, pedestrian-vehicle compliance, and motorist yielding were used to evaluate the safety performance of the treatments. Results from the five PHB sites showed an average of 97 percent motorist yielding across all sites, comparable to the other treatments in the red signal or beacon category (see figure below). Nearly all of the red signals or beacons studied were used on high-volume, high-speed arterial streets. Although the report only considered pedestrians, the results of this study indicate that bicyclists crossing at PHB sites may likewise benefit from high motorist yield rates (1).

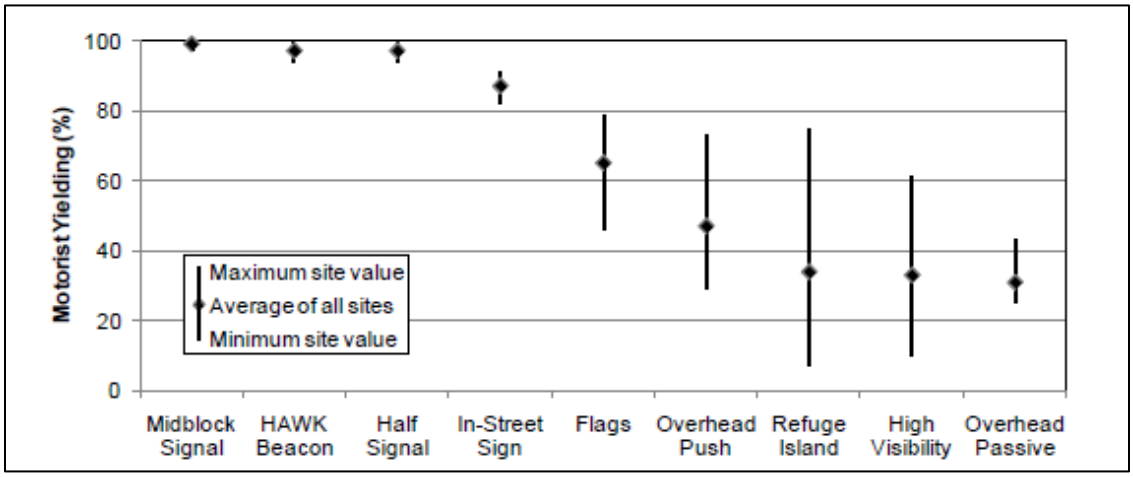


Figure 55. Percent of motorists yielding by beacon type.

[Caption: Figure 6 from the report showing the effect of various countermeasures on motorist yielding at study sites. The PHB, or HAWK, beacon is shown second from the left (1).]

A 2010 report by Fitzpatrick and Park published by the Federal Highway Administration evaluated the safety effectiveness of the PHB at 21 sites in Tucson, Arizona. The researchers used collision data from three years pre-treatment and three years following treatment, as well as nearby treated and untreated reference sites, to calculate reduction in expected collisions using the empirical Bayes method. While the researchers only used Bayesian analysis for total crashes, severe crashes, and pedestrian-motor vehicle crashes, data collected as part of the study demonstrated that bicycle-motor vehicle crashes decreased from 13 in the pre-PHB study period to 7 in the three years following its installation. While statistical analysis is necessary to prove the significance of this decrease, it indicates greater safety at PHB sites for bicyclists. Their analysis of pedestrian-motor vehicle collisions indicated a statistically significant 69 percent reduction in pedestrian crashes, indicating safety benefits for other vulnerable road users (2).

References

1. Fitzpatrick, K., S. Turner, M. Brewer, P. Carlson, N. Lalani, B. Ullman, N. Trout, E. S. Park, D. Lord, and J. Whitacre. *Improving Pedestrian Safety at Unsignalized Crossings*, TCRP/NCHRP Report 112/ 562. Transportation Research Board, Washington, DC., 2006. http://www.fhwa.dot.gov/publications/research/safety/10042/10042.pdf
2. Fitzpatrick, K., and E. S. Park. *Safety Effectiveness of the HAWK Pedestrian Crossing Treatment*. Publication FHWA-HRT-10-042. FHWA, U.S. Department of Transportation, 2010. Resource available at http://www.fhwa.dot.gov/publications/research/safety/10042/10042.pdf

7.3 Optimize Signal Timing for Bicycles

A 2002 study by Retting, Chapline, and Williams evaluated the impact of a series of signal timing changes on pedestrian and bicycle injury collisions in Suffolk and Nassau counties in New York. Study and control intersections were randomly selected from a pool of 122 eligible signals so that half would undergo signal timing changes and half would remain unchanged. Crash statistics were collected for three years before and three years after the implementation of the signal timing changes. Intersection locations where the signal timing was changed demonstrated a statistically significant 37 percent reduction in the number of pedestrian and bicyclist injury collisions when compared to the control group. While the specific effects on bicyclists were not calculated, the study offers evidence that signal timing can influence intersection safety for pedestrians and bicyclists (1).

References

1. Retting, R. A., J. F. Chapline, and A. F. Williams. Changes in Crash Risk Following Re-Timing of Traffic Signal Intervals. *Accident Analysis and Prevention*, Vol. 34, 2002, pp. 215-220.

7.4 Bike-Activated Signal Detection

There are currently no resources for this section.

7.5 Sign Improvements for Bicyclists

In 2012, Kay, Savolainen, and Gates conducted a before-after study to evaluate the addition of Share the Road plaques (W16-1) to existing bicycle warning signs (W11-1) along a two-lane rural segment of Michigan Highway 109. The researchers selected two similar roadway segments that were 0.5 miles in length and separated by a 1.1 mile segment. Each segment was 11 feet wide with 4-foot paved shoulders and minimal curvature; however, one of the segments also had centerline rumble strip, allowing the researchers to observe the effects of the rumble strip on motor vehicle lateral placement when motorists passed bicyclists (1).

CMF / CRF DETAILS

CMF ID: 9903

MODIFY SIGNAL PHASING (IMPLEMENT A LEADING PEDESTRIAN INTERVAL)

DESCRIPTION:

PRIOR CONDITION: SIGNAL PHASING WITHOUT LEADING PEDESTRIAN INTERVAL

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY EVALUATION OF PROTECTED LEFT-TURN PHASING AND LEADING PEDESTRIAN INTERVALS ON PEDESTRIAN SAFETY*, GOUGHNOUR ET AL., 2018

Star Quality Rating:	★★★★★ [VIEW SCORE DETAILS]
Rating Points Total:	150

Crash Modification Factor (CMF)

Value:	0.81
Adjusted Standard Error:	
Unadjusted Standard Error:	0.07

Crash Reduction Factor (CRF)

Value:	19 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	7

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	All
Street Type:	
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban and suburban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	Not specified
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 6650 to Maximum of 32363 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	Minimum of 1850 to Maximum of 25883 Annual Average Daily Traffic (AADT)
Average Major Road Volume :	16407 Annual Average Daily Traffic (AADT)
Average Minor Road Volume :	8544 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	2005 to 2014
Municipality:	Chicago
State:	IL
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (crashes):	226 crashes before, 154 crashes after
Sample Size (sites):	56 sites before, 56 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar 11, 2019
Comments:	Crash Type = Vehicle - Pedestrian Crashes. This CMF is for sites where LPIs were implemented either at all crossings major and minor roads) or only for crossings across the minor road (parallel to the major road).

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CMF / CRF DETAILS

CMF ID: 10119

INSTALL PEDESTRIAN COUNTDOWN TIMER

DESCRIPTION: INSTALL PEDESTRIAN COUNTDOWN TIMER

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY EVALUATION OF PEDESTRIAN COUNTDOWN SIGNALS - DEFINITIVE RESULTS FROM TWO CITIES IN THE UNITED STATES*, SRINIVASAN ET AL., 2019

Star Quality Rating:	[VIEW SCORE DETAILS]
Rating Points Total:	125

Crash Modification Factor (CMF)

Value:	0.912
Adjusted Standard Error:	
Unadjusted Standard Error:	0.055

Crash Reduction Factor (CRF)

Value:	8.8 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	5.5

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Not specified
Street Type:	
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	Not specified

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	3-leg,4-leg
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	Charlotte & Philadelphia
State:	NC,PA
Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (crashes):	434.9 crashes after
Sample Size (sites):	333 sites before, 333 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec 17, 2020
Comments:	

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CMF / CRF DETAILS

CMF ID: 9024

INSTALL RECTANGULAR RAPID FLASHING BEACON (RRFB)

DESCRIPTION: INSTALL RECTANGULAR RAPID FLASHING BEACON (RRFB)

PRIOR CONDITION: NO RRFB

CATEGORY: PEDESTRIANS

STUDY: *DEVELOPMENT OF CRASH MODIFICATION FACTORS FOR UNCONTROLLED PEDESTRIAN CROSSING TREATMENTS*, ZEGEER ET AL., 2017

Star Quality Rating:	★★★☆☆ [VIEW SCORE DETAILS]
Rating Points Total:	85

Crash Modification Factor (CMF)

Value:	0.526
Adjusted Standard Error:	
Unadjusted Standard Error:	0.377

Crash Reduction Factor (CRF)

Value:	47.4 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	37.7

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Minor Arterial
Street Type:	
Minimum Number of Lanes:	2
Maximum Number of Lanes:	8
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban and suburban
Traffic Volume:	Minimum of 533 to Maximum of 49402 Annual Average Daily Traffic (AADT)
Average Traffic Volume:	15958 Annual Average Daily Traffic (AADT)
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2004 to 2013
Municipality:	
State:	AZ,FL,IL,MA,NY,NC,OR,VA,WI
Country:	USA
Type of Methodology Used:	Regression cross-section
Sample Size (site-years):	1928 site-years

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov 17, 2017
Comments:	

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CMF / CRF DETAILS

CMF ID: 9021

INSTALL PEDESTRIAN HYBRID BEACON (PHB OR HAWK) WITH ADVANCED YIELD OR STOP MARKINGS AND SIGNS

DESCRIPTION: INSTALL A COMBINATION OF A PEDESTRIAN HYBRID BEACON (PHB) AND ADVANCED YIELD OR STOP MARKINGS AND SIGNS

PRIOR CONDITION: NO PHB OR ADVANCED YIELD OR STOP MARKINGS AND SIGNS

CATEGORY: PEDESTRIANS

STUDY: *DEVELOPMENT OF CRASH MODIFICATION FACTORS FOR UNCONTROLLED PEDESTRIAN CROSSING TREATMENTS*, ZEGEER ET AL., 2017

Star Quality Rating:	★★★★☆ [VIEW SCORE DETAILS]
Rating Points Total:	125

Crash Modification Factor (CMF)

Value:	0.432
Adjusted Standard Error:	
Unadjusted Standard Error:	0.134

Crash Reduction Factor (CRF)

Value:	56.8 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	13.4

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Minor Arterial
Street Type:	
Minimum Number of Lanes:	2
Maximum Number of Lanes:	8
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban and suburban
Traffic Volume:	Minimum of 6634 to Maximum of 48791 Annual Average Daily Traffic (AADT)
Average Traffic Volume:	20673 Annual Average Daily Traffic (AADT)
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2004 to 2013
Municipality:	
State:	AZ,FL,IL,MA,NY,NC,OR,VA,WI
Country:	USA
Type of Methodology Used:	Meta-analysis
Sample Size (crashes):	10 crashes before, 4 crashes after
Sample Size (sites):	27 sites before, 27 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov 17, 2017
Comments:	Methodology used was a combination of EB before-after and cross-sectional estimations. Also, study sites were a cor intersection and mid-block locations.

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CMF / CRF DETAILS

CMF ID: 9017

INSTALL ADVANCED YIELD OR STOP MARKINGS AND SIGNS

DESCRIPTION: INSTALL ADVANCED YIELD OR STOP MARKINGS AND SIGNS

PRIOR CONDITION: NO ADVANCED YIELD OR STOP MARKINGS AND SIGNS

CATEGORY: PEDESTRIANS

STUDY: *DEVELOPMENT OF CRASH MODIFICATION FACTORS FOR UNCONTROLLED PEDESTRIAN CROSSING TREATMENTS*, ZEGEER ET AL., 2017

Star Quality Rating:	★★★☆☆ [VIEW SCORE DETAILS]
Rating Points Total:	105

Crash Modification Factor (CMF)

Value:	0.75
Adjusted Standard Error:	
Unadjusted Standard Error:	0.23

Crash Reduction Factor (CRF)

Value:	25 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	23

Applicability

Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Minor Arterial
Street Type:	
Minimum Number of Lanes:	2
Maximum Number of Lanes:	8
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban and suburban
Traffic Volume:	Minimum of 340 to Maximum of 52892 Annual Average Daily Traffic (AADT)
Average Traffic Volume:	15735 Annual Average Daily Traffic (AADT)
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2004 to 2013
Municipality:	
State:	AZ,FL,IL,MA,NY,NC,OR,VA,WI
Country:	USA
Type of Methodology Used:	Meta-analysis
Sample Size (crashes):	18 crashes before, 21 crashes after
Sample Size (sites):	69 sites before, 69 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov 17, 2017
Comments:	Methodology used was a combination of EB before-after and cross-sectional estimations. Also, study sites were a cor intersection and mid-block locations.

VIEW THE FULL STUDY DETA

EXPORT DETAIL PAGE AS PDF

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For more information, contact Sarah Weissman Pascual at **sara**

CMF / CRF DETAILS

CMF ID: 1410

ADD 3-INCH YELLOW RETROREFLECTIVE SHEETING TO SIGNAL BACKPLATES

DESCRIPTION:

PRIOR CONDITION: *NO PRIOR CONDITION(S)*

CATEGORY: INTERSECTION TRAFFIC CONTROL

STUDY: *SAFETY IMPACT OF INCREASED TRAFFIC SIGNAL BACKBOARDS CONSPICUITY*, SAYED ET AL., 2005

Star Quality Rating:	★★★★☆ [VIEW SCORE DETAILS]
Rating Points Total:	120

Crash Modification Factor (CMF)

Value:	0.85
Adjusted Standard Error:	
Unadjusted Standard Error:	0.005

Crash Reduction Factor (CRF)

Value:	15 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	
Unadjusted Standard Error:	0.5

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Street Type:	
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	

Crash Weather:	Not specified
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	
Municipality:	
State:	notusa
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (sites):	17 sites after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec 01, 2009
Comments:	The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 t points as a beneift of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment gro number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the dataset used for CMF development.

VIEW THE FULL STUDY DETA

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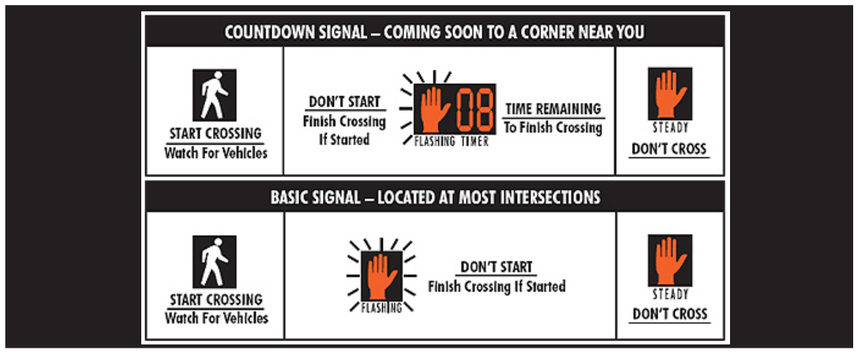
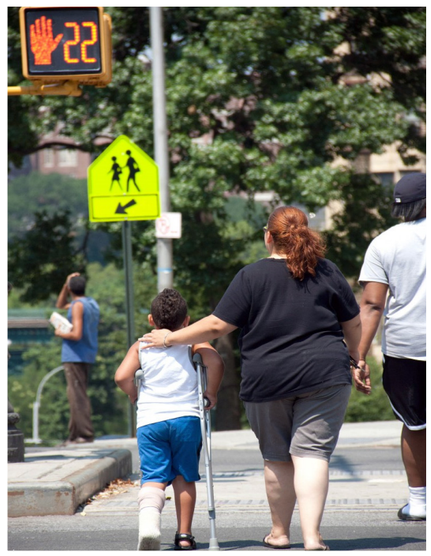
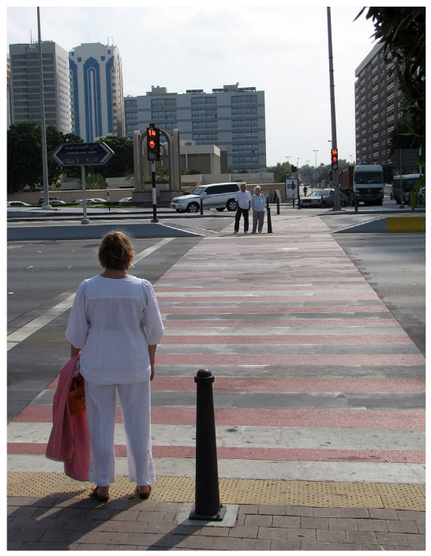






Pedestrian countdown signals

Definition

Pedestrian countdown signals consist of a standard pedestrian signal head, with an added display showing a countdown of the remaining crossing time.

The countdown timer may start either at the beginning of the pedestrian WALK phase, but the MUTCD recommends starting the timer at the onset of the flashing DON'T WALK. The former is feasible only in jurisdictions that do not use "rest in walk" mode and/or that have all fixed-time signals.

Countdown signals are required by the MUTCD to be installed whenever pedestrian signal heads are warranted as part of intersection signalization or reconstruction. Signals may be supplemented with audible or other messages to make crossing information accessible for all pedestrians. Note that accessible pedestrian signals are called for at all new signals and at "all altered portions of existing facilities… the maximum extent feasible" in the proposed PROWAG.

Objective

To provide information to pedestrians about the amount of time remaining to safely cross the street at signalized intersections.

Advantage

Easily understood by most people.

Helps pedestrians judge whether there is sufficient time to cross. Provides certainty as regards the duration of the flashing DON'T WALK phase.

Especially helpful to mobility-challenged, elderly pedestrians, and adults accompanying small children.

Challenge

May not be easily understood by children or other persons with limited counting ability.

Does not benefit vision-impaired pedestrians.

Countdown signal technology will not currently work for railroad-preempted traffic signals (i.e. at signalized crossings near rail lines).

Resources

Pedestrian Safety: Report to Congress (August 2008) http://safety.fhwa.dot.gov/ped_bike/legis_guide/rpts_cngs/pedrpt_0808/pedrept_0808.pdf (See pp. 12-13).

PedSafe Case Studies: Countdown signals http://www.walkinginfo.org/pedsafe/case_studies2.cfm?op=C&subop=f&CM_NUM=38.

Pedestrian Countdown Indication—Market Research and Evaluation http://www.dot.state.mn.us/trafficeng/signals/news/ped%20countdown.pdf.

Accessible Pedestrian Signals: A Guide to Best Practices http://www.apsguide.org/index.cfm.

Manual on Uniform Traffic Control Devices http://mutcd.fhwa.dot.gov/ (See Chapter 4E).

Images (clockwise from main image):

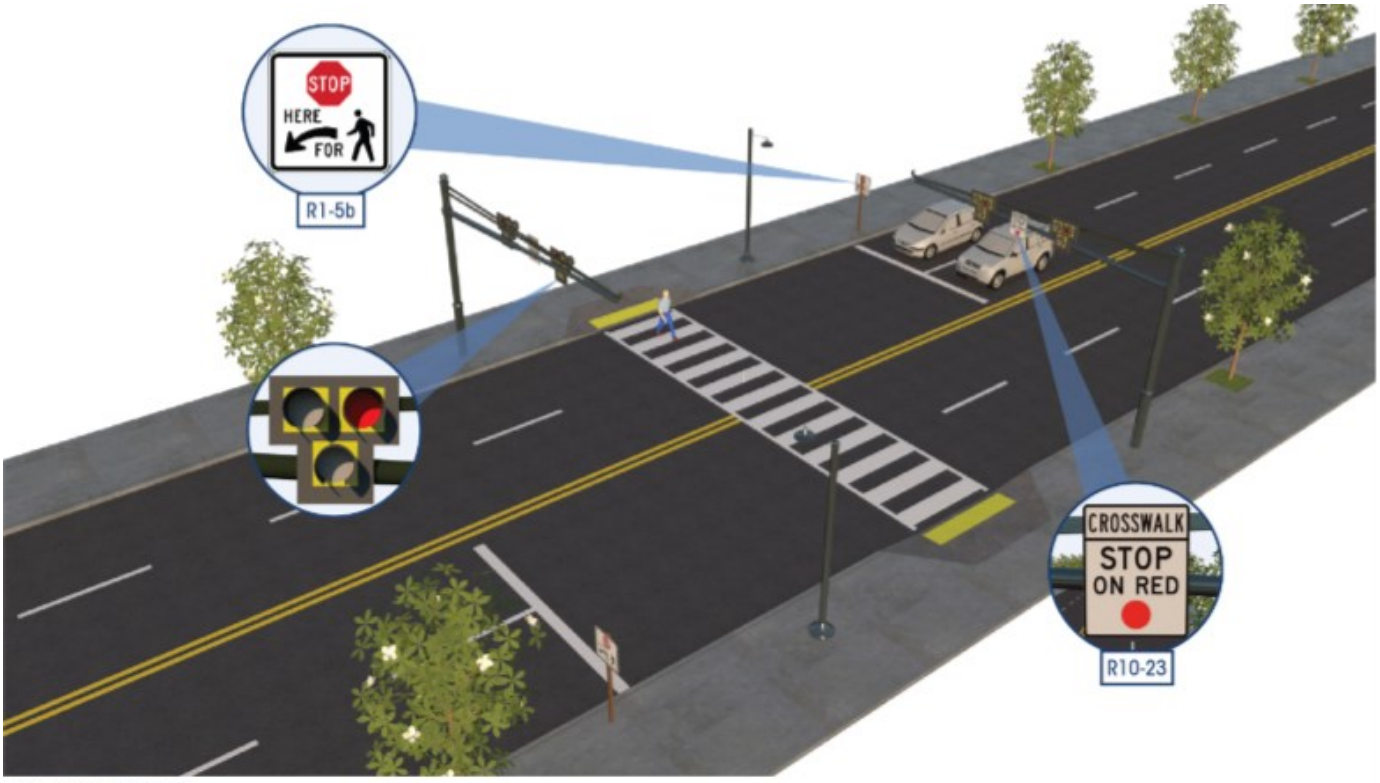
Pedestrian countdown signal.
Source: Flickr, NYC Department of Transportation.

Additional examples:
Sources: Dan Burden; Dan Burden; Tara MacIsaac, The Epoch Times; Paul Krueger, Flickr; Delaware Department of Transportation.

Tech Brief Series **Tech Brief - 2019-3**

Pedestrian Hybrid Beacon

This Traffic Signal Brief discusses the Pedestrian Hybrid Beacon (PHB), which is designated as a Proven Safety Countermeasure by the Federal Highway Administration (FHWA).



Source: FHWA

There is some confusion around the terms Rectangular Rapid Flashing Beacon (RRFB), Pedestrian Hybrid Beacon (PHB) and High-intensity Activated crossWalK (HAWK). We will first discuss what each of these terms mean.

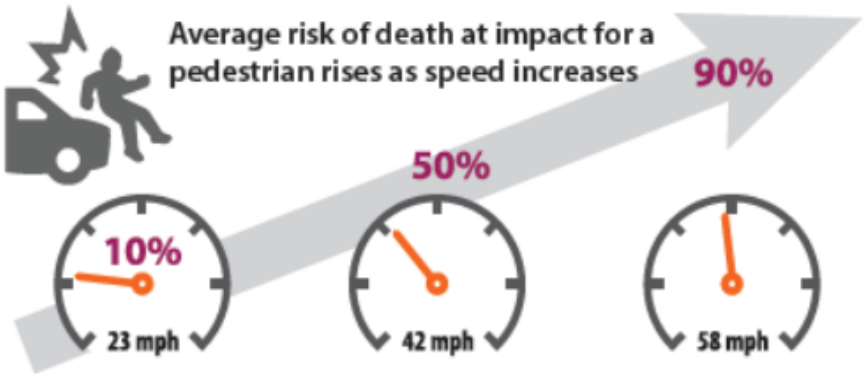
RRFB	PHB or HAWK
 *RRFB - Source: FHWA*	 *PHB - Source: FHWA*
An RRFB is a device that provides an irregular flashing pattern using amber light emitting diodes when activated by either a push button or pedestrian detection system. It serves as a supplement to a warning sign at an unsignalized crossing location by directing the driver's attention to the need to yield to a pedestrian. It does not assign right of way. It may be mounted with a roadside sign or an overhead sign. RRFBs are not included in the 2009 Edition of the MUTCD, but they are currently approved for use in Connecticut under an FHWA interim approval. RRFBs can be installed on two-lane or multi-lane roadways.	A PHB is a traffic control signal used to help pedestrians safely cross at uncontrolled intersections and midblock crosswalks. It is often referred to in Connecticut as a HAWK signal. The beacon head consists of two red lenses above a single yellow lens. The lenses remain "dark" until a pedestrian desiring to cross the street pushes the call button to activate the beacon. The signal then initiates a yellow to red lighting sequence consisting of steady and flashing lights that directs motorists to slow and come to a stop. The pedestrian signal then flashes a WALK display to assign the right of way to the pedestrian. Once the pedestrian has safely crossed, the hybrid beacon again goes dark. Pedestrian hybrid beacons are MUTCD-approved traffic control devices. PHBs may be used on roads consistent with the criteria defined in the MUTCD.

If you are looking for information on RRFBs, please see the resources section at the end of this brief for more information. For further information on PHBs, keep reading.

How does a PHB work?

The pedestrian hybrid beacon (PHB) is a traffic control device designed to help pedestrians safely cross busy or higher-speed roadways at midblock crossings and uncontrolled intersections. The beacon consists of two red lenses above a single yellow lens. Its operations are described below:

More than 75 percent of pedestrian fatalities occur at non-intersection locations, and vehicle speeds are often a major contributing factor. As a safety strategy to address this pedestrian crash risk, the PHB is an intermediate option between a flashing beacon and a full pedestrian signal because it assigns right of way and provides positive stop control. It also allows motorists to proceed once the pedestrian has cleared their side of the travel lane, reducing vehicle delay.

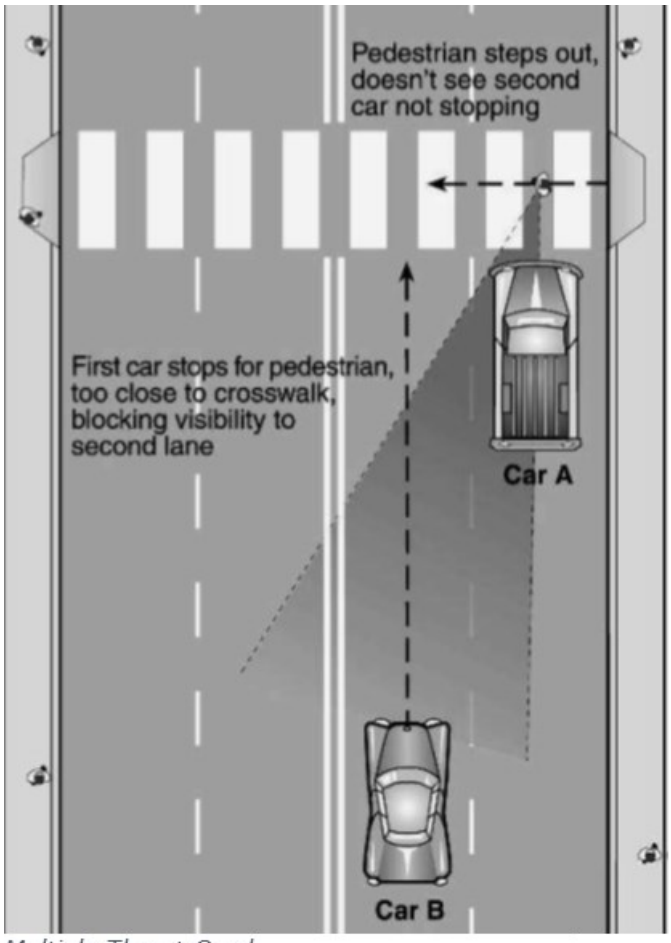


Source: AAA Foundation for Traffic Safety

Considerations for Implementation

Agencies should refer to **Section 4F.01** of the 2009 MUTCD for guidance on implementing PHBs. The MUTCD provides guidance on the pedestrian volume warrants, design features, and restrictions associated with the PHB. Other considerations include:

- PHBs are a candidate treatment for roads that generally have annual average daily traffic (AADT) above 9,000.
- Strongly consider a PHB for all midblock and intersection crossings where the roadway speed limits are equal to or greater than 40 miles per hour.
- PHBs can be used at both intersections and midblock locations.
- The PHB works well to counteract multiple threat crashes, which occur when a driver in one lane yields to a pedestrian crossing the street, but the driver in the next lane does not.
- PHBs are not widely implemented, so agencies should consider an education and outreach effort when implementing a PHB within a community.



Multiple Threat Crash
Source: FHWA Pedsafe

The FHWA publication *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations* provides the following matrix to aid with selection of pedestrian treatments at uncontrolled locations:

Roadway Configuration	Speed Limit								
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
2 lanes*	❶ 2 3 4 5 6	❶ ❸ 5 6 7	❶ ❸ 5 6 ❼	❶ 3 4 5 6	❶ ❸ 5 6 7	❶ ❸ 5 6 ❼	❶ 3 4 5 6 7	❶ ❸ 5 6 7	❶ ❸ 5 6 ❼
3 lanes with raised median*	❶ 2 3 4 5	❶ ❸ 5 7	❶ ❸ 5 ❼	❶ 3 4 5 7	❶ ❸ 5 ❼	❶ ❸ 5 ❼	❶ ❸ 4 5 7	❶ ❸ 5 ❼	❶ ❸ 5 ❼
3 lanes w/o raised median†	❶ 2 3 4 5 6 7	❶ ❸ 5 6 7	❶ ❸ 5 6 ❼	❶ 3 4 5 6 7	❶ ❸ 5 6 ❼	❶ ❸ 5 6 ❼	❶ ❸ 4 5 6 7	❶ ❸ 5 6 ❼	❶ ❸ 5 6 ❼
4+ lanes with raised median‡	❶ ❸ 5	❶ ❸ 5 7	❶ ❸ 5 ❼	❶ ❸ 5 7	❶ ❸ 5 ❼	❶ ❸ 5 ❼	❶ ❸ 5 ❼	❶ ❸ 5 ❼	❶ ❸ 5 ❼
4+ lanes w/o raised median‡	❶ ❸ 5 6 7 8	❶ ❸ 5 ❻ 7 8	❶ ❸ 5 ❻ ❼ 8	❶ ❸ 5 ❻ 7 8	❶ ❸ 5 ❻ ❼ 8	❶ ❸ 5 ❻ ❼ 8	❶ ❸ 5 ❻ ❼ 8	❶ ❸ 5 ❻ ❼ 8	❶ ❸ 5 ❻ ❼ 8

*One lane in each direction †One lane in each direction with two-way left-turn lane ‡Two or more lanes in each direction

Given the set of conditions in a cell,

❶ Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.

\# Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

1 High-visibility crosswalk markings, parking restriction on crosswalk approach, adequate nighttime lighting levels
2 Raised crosswalk
3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4 In-Street Pedestrian Crossing sign
5 Curb extension
6 Pedestrian refuge island
7 Pedestrian Hybrid Beacon
8 Road Diet

This table was developed using information from: Zegeer, C. V., Stewart, J. R., Huang, H. H., Lagerwey, P. A., Feaganes, J., & Campbell, B. J. (2005), Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines (No. FHWA-HRT-04-100); Manual on Uniform Traffic Control Devices, 2009 Edition, Chapter 4F. Pedestrian Hybrid Beacons; the Crash Modification Factors (CMF) Clearinghouse website (http://www.cmfclearinghouse.org/); and the Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE) website (http://www.pedbikesafe.org/PEDSAFE/).

Costs:

FHWA estimates the cost of implementing a PHB to be $21,000 to $128,000, with an average per unit cost of $57,680. This is significantly less expensive than a full traffic signal installation, but higher than the cost of an RRFB installation which is estimated at $10,000 to $15,000.

Portions adapted from FHWA-SA-17-065

References and Resources

CT DOT HAWK Information Sheet
http://www.ct.gov/dot/lib/dot/documents/dtrafficdesign/safety/hawk.pdf

Pedestrian Hybrid Beacon Guide – Recommendations and Case Study – FHWA
https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa14014/fhwasa14014.pdf

MUTCD Section 4F.01: Application of Pedestrian Hybrid Beacons
https://mutcd.fhwa.dot.gov/htm/2009r1r2/part4/part4f.htm#section4F01

Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations - FHWA
https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

For information on RRFBs and other pedestrian treatments:

CT DOT RRFB Information Sheet
https://www.ct.gov/dot/lib/dot/documents/dtrafficdesign/safety/rectangular_rapid_flash_beacon_brochure.pdf

FHWA Safety page on RRFBs
https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09009/

FHWA Interim Approval 21 for RRFBs
https://mutcd.fhwa.dot.gov/resources/interim_approval/ia21/index.htm

PedBikeInfo.com
http://www.pedbikeinfo.org/webinars/webinar_details.cfm?id=9

Informational Brief: Treatments for Uncontrolled Marked Crosswalks - FHWA
https://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/informationalbrief/informationalbrief.pdf