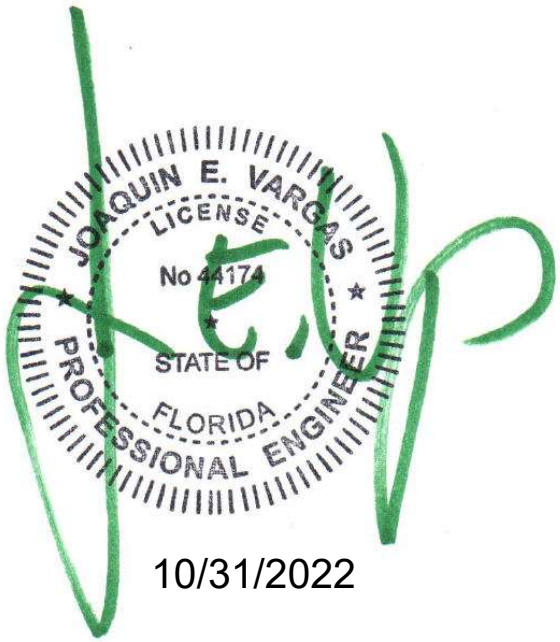
The Ave

3058 – 3064 N. Andrews Avenue
Wilton Manors, Florida 33334

prepared for:
FSMY Architects + Planners

traffic study



10/31/2022

TRAFTECH ENGINEERING, INC.

October 2022

TRAFTECH ENGINEERING, INC.

Mr. Josh Bailey, AIA, NCARB, RA LEED GA
FSMY Architects + Planners
888 South Andrews Avenue
Suite 300
Fort Lauderdale, Florida 33316

October 31, 2022

Re: The Ave, Wilton Manors, Florida – Traffic Study

Dear Josh:

Traf Tech Engineering, Inc. has prepared this traffic statement in connection with a proposed 186-unit residential development planned to be located on the east side of North Andrews Avenue just south of Oakland Park Boulevard in the City of Wilton Manors, Florida. The proposed site plan for The Ave is found in Attachment A. This traffic memorandum addresses the following topics:

- Trip Generation and Trip Distribution
- Driveway Volumes
- Level of Service (Links and Intersections)
- Parking Needs, Entry Gates and Multimodal
- Queuing Analysis

Trip Generation Comparison and Trip Distribution

A trip generation comparison analysis was performed for the site using the trip generation equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual (11th Edition)*. The trip generation analyses were undertaken for daily, AM peak hour, and PM peak hour conditions. According to ITE's *Trip Generation Manual (11th Edition)*, the trip generation equations used for the analyses are presented below:

Multifamily Mid Rise (ITE Land Use 221) – Proposed Use

Daily Trips

T = 4.77 (X) – 46.46
Where T = average daily vehicle trip ends and X = number of units

AM Peak Hour

T = 0.44 (X) – 11.61 with 23% inbound and 77% outbound
Where T = AM peak hour trip ends and X = number of units

PM Peak Hour

T = 0.39 (X) + 0.34 with 61% inbound and 39% outbound
Where T = PM peak hour trip ends and X = number of units

Small Office (ITE Land Use 712)

Daily Trips

T = 14.39 (X)
Where T = average daily vehicle trip ends and X = 1,000 sf

AM Peak Hour

T = 1.67 (X) with 82% inbound and 18% outbound
Where T = AM peak hour trip ends and X = 1,000 sf

PM Peak Hour

T = 2.16 (X) with 34% inbound and 66% outbound
Where T = PM peak hour trip ends and X = 1,000 sf

Retail less than 40,000 sf (ITE Land Use 822) – Existing Use

Daily Trips

T = 54.45 (X)
Where T = average daily vehicle trip ends and X = 1,000 sf

AM Peak Hour

T = 2.36 (X) with 60% inbound and 40% outbound
Where T = AM peak hour trip ends and X = 1,000 sf

PM Peak Hour

T = 6.59 (X) with 50% inbound and 50% outbound
Where T = PM peak hour trip ends and X = 1,000 sf

Restaurant (ITE Land Use 931) – Existing Use

Daily Trips

T = 83.84 (X)
Where T = average daily vehicle trip ends and X = 1,000 sf

AM Peak Hour

T = 0.73 (X) with 50% inbound and 50% outbound
Where T = AM peak hour trip ends and X = 1,000 sf

PM Peak Hour

T = 7.80 (X) with 67% inbound and 33% outbound
Where T = PM peak hour trip ends and X = 1,000 sf

Using the above-listed trip generation equations from the ITE document, a trip generation comparison analysis was undertaken for the existing and proposed uses at the site. The results of this effort are documented in Tables 1 and 2 below. As shown at the bottom of the tables, the 186-unit residential development (including 12 live-work units with a total of 2,400 square feet as commercial space) is projected to generate approximately 343 new daily trips, approximately 42 new AM peak hour trips (-1 inbound and +43 outbound) and approximately 18 new trips during the typical afternoon peak hour (+15 inbound and +3 outbound), when compared against the existing uses at the site. However, since the existing uses at the site have been vacant, the trips generated by the proposed development were used (no deduction to account for the existing uses was performed for purposes of this traffic evaluation.

TABLE 1
Trip Generation Summary (Existing Uses)
The Ave

				AM Peak Hour			PM Peak Hour		
Land Use	**Size**		**Daily Trips**	**Total Trips**	**Inbound**	**Outbound**	**Total Trips**	**Inbound**	**Outbound**
Restaurant (LUC 931)	3,510	sf	294	3	2	1	27	18	9
Retail (LUC 822)	13,019	sf	709	31	19	12	86	43	43
Subtotal			**1,003**	**34**	**21**	**13**	**113**	**61**	**52**
Internal (Office-Rest.)			-169	-2	-1	-1	-19	-10	-10
Driveway Volumes			**834**	**32**	**20**	**12**	**94**	**51**	**43**
Pass-by (Ret-34%)			-214	0	0	0	-26	-13	-13
Pass-by (Rest-44%)			-87	0	0	0	-8	-6	-2
External Trips			**533**	**32**	**20**	**12**	**60**	**32**	**28**

Source: ITE Trip Generation Manual (11th Edition)

TABLE 2
Trip Generation Summary (Proposed Use)
The Ave

				AM Peak Hour			PM Peak Hour		
Land Use	**Size**		**Daily Trips**	**Total Trips**	**Inbound**	**Outbound**	**Total Trips**	**Inbound**	**Outbound**
Mid Rise Units (LUC 221)	186	du	841	70	16	54	73	45	28
Live/Work Office LUC 712)	2,400	sf	35	4	3	1	5	2	3
Driveway/External Trips			**876**	**74**	**19**	**55**	**78**	**47**	**31**

Source: ITE Trip Generation Manual (11th Edition)

Difference in Trips			**Daily**	**AM Peak**			**PM Peak**		
New Trips	**Driveway**		**42**	**42**	**-1**	**43**	**-16**	**-4**	**-12**
Proposed - Existing	**External**		**343**	**42**	**-1**	**43**	**18**	**15**	**3**

It is important to note that 12 of the 186 residential units are live/work with 200 square-foot each for a total of 2,400 square feet. For a conservative analysis, the 2,400 square feet of workspace was treated as office use for trip generation purpose, as reflected above.

The trip distribution and traffic assignment for the project's peak trips was based on examination of the surrounding roadway network characteristics, review of current traffic volumes, and nearby land uses. The trip distribution assumed for the proposed residential development is summarized below.

- o 100% of the trips arrive from the south
- o 100% of the trips departs to the north

Roadway Segments Level of Service and Traffic Impacts

The current daily and PM peak hour traffic conditions along Oakland Park Boulevard (I-95 to Federal Highway), NE 26th Street (Dixie Highway to Federal Highway), Andrews Avenue (north and south of Oakland Park Boulevard), Wilton Drive (Sunrise Boulevard to Dixie Highway) and Dixie Highway, north of Oakland Park Boulevard were assessed. The current level of service of these roadway segments is documented in Tables 3 and 4. As indicated in the tables, capacity deficiencies are currently present on Oakland Park Boulevard (I-95 to Andrews Avenue), Andrews Avenue (Oakland Park Boulevard to Prospect Road) and along Wilton Drive. Tables 5 and 6 document the projected traffic impact created by The Ave on the surrounding street system. As illustrated in Tables 5 and 6, The Ave is projected to have a de-minimus (less than one percent of the roadway link's capacity) traffic impact to the surrounding street system.

Intersections and Driveway Level of Service

A total of Five intersections and the project driveway were evaluated. Intersection turning movement counts were recorded at the following intersections:

- Andrews Avenue & Oakland Park Boulevard
- Powerline Road & Oakland Park Boulevard
- Powerline Road & NW 29 Street
- Andrews Avenue & NE 26th Street
- Oakland Park Boulevard & NE 6 Avenue

The above traffic counts were recorded on Tuesday, August 16 ,2022 and Wednesday, September 14, 2022. The traffic counts were collected during the peak season based on FDOT peak season adjustment factors. The traffic counts are included in Attachment B. The signal timing plans for the signalized intersections were obtained from Broward County Traffic Engineering Division and are also included in Attachment B.

For the future conditions analyses, background and total traffic volumes were developed for the anticipated buildout year of 2025. The background traffic includes peak season adjustments and traffic growth based on historical traffic data within the study area (refer to Attachment C). As indicated in the growth analysis presented in Attachment D, traffic growth has occurred at approximately 1.24% over the past 10. The future traffic volumes are presented in tabular format in Attachment D.

To determine the impacts created to the study intersections, capacity/level of service analyses were undertaken using the SYNCHRO software. The results of the capacity/level of service analyses are presented in Table 7A. As summarized in Table 7A, the project driveway is projected to operate at level of service "B". The traffic impacts created by this project to the study intersections is de-minimus (less than 5 seconds of additional delay). The results of the SYNCHRO analyses are contained in Attachment E.

In addition, queues for the northbound left-turn movement at the intersection of Andrews Avenue and Oakland Park Boulevard are summarized in Table 7B. Please note that under the existing and background conditions, AM peak hour queues extend beyond the existing storage bay. With the proposed project in place, queues increased by 37 feet of less than 2 vehicles. However, signal optimization is recommended to mitigate the project's trips.

Parking Needs

As documented in the site plan contained in Attachment A, the project requires 287 parking spaces per City of Wilton Manors land development regulations. The project is providing 266 parking stalls.

Traf Tech Engineering, Inc. has determined the parking requirements associated with the 186 residential units proposed for The Ave. According to the *Parking Generation Manual* published by the Institute of Transportation Engineers (ITE) – 5th Edition, mid-rise multi-family developments (ITE's LUC 221) has the following formula to determine the amount of parking spaces required for this type of residential development:

Parking Needs = 0.82 (X) - 20.37, where X = number of bedrooms

Since the residential component of the project has 155 one-bedroom units (live-work, lofts, studios, and apartments) and 31 two-bedroom units, the total

number of bedrooms is 217. Applying the above ITE parking formula results in a parking need of 158 parking spaces.

Adding the eight (8) parking spaces required for the commercial uses (refer to site plan data sheet), the project requires a total of 164 parking spaces. The 266 provided parking spaces would comfortably accommodate the residents, visitors, and commercial patrons of The Ave project.

Entry Gates and Queuing Analysis

There is a gate for residents only located approximately 160 feet east of the property line (the east right-of-way line of Andrews Avenue). The gate provides access to the ramp for the upper-level parking stalls. There are parking spaces prior to the resident's gate for commercial use and visitors.

A queuing analysis was conducted for the entry gate. The access driveways are proposed to be controlled by swing arms. Residents will have a vehicle card reader to operate the gate in order to minimize delay and queues. Note that there are parking spaces prior to the resident's gate for commercial use and visitors. Therefore, commercial/visitors will not be allowed to use the gated entrance. Table 8 summarizes the results of the queuing analysis. As shown in Table 8, queues for the resident's gate are not expected to exceed one (1) vehicle. Therefore, traffic entering the site will not spillback into the adjacent public roadways. Attachment F includes a description of the queuing analysis and calculation details.

Multimodal

As shown in the site plan, bicycle parking for 38 residents and six (6) visitors are provided within the site. Additionally, the lobby located along Andrews Avenue provides direct access to the bus stop (including a shelter). It is recommended that Broward County Transit (BCt) route information be provided within the lobby.

The two nearest roadways (Oakland Park Boulevard and Andrews Avenue) to the project site to not provide bicycle lanes. Within the study area of this project, NE 26th Street has marked bicycle lanes and Wilton Drive has buffered bicycle lanes. At this time, The Ave is not proposing bicycle improvements within the project's study area. However, if the City of Wilton Manors has anticipated bicycle improvements within the study area, the development team is receptive to discussing any possible contributions to such project.

Sidewalks are provided on both sides of Andrews Avenue within the frontage of the project site. Safe pedestrian features (ramps, pedestrian signals with push buttons) are provided at the signalized intersection of Oakland Park Boulevard and Andrews Avenue. Along Oakland Park Boulevard, BCt Route 72 travels in the eastbound and westbound directions. BCt Route 60 travels north and south along Andrews Avenue and as stated previously, a bus stop with direct access to the residential lobby is provided on the east side of Andrews Avenue.

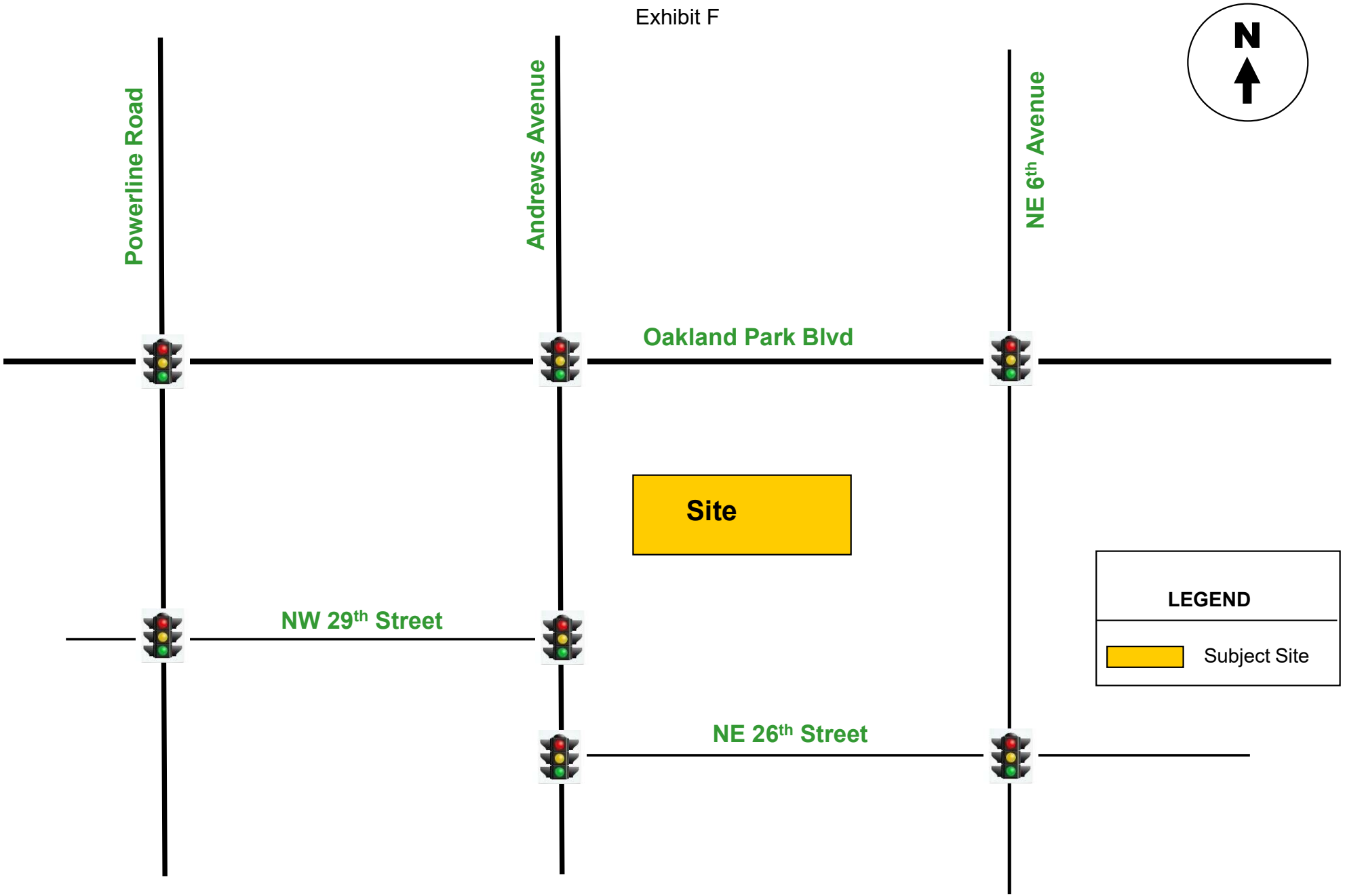
Please give me a call if you have any questions.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

Exhibit F

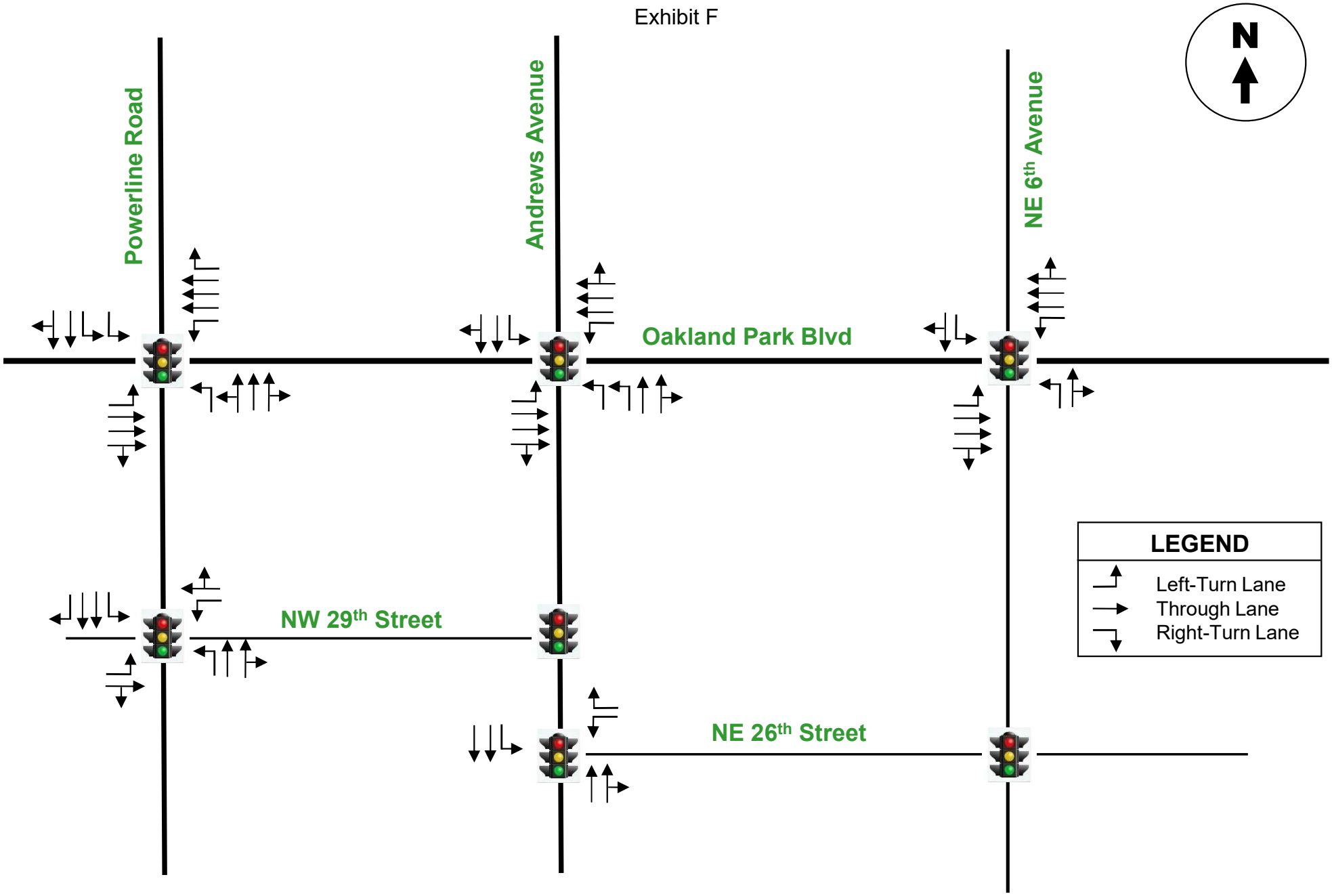


TRAFTECH ENGINEERING, INC.

PROJECT LOCATION MAP

FIGURE 1
The Ave
Wilton Manors, Florida

Exhibit F

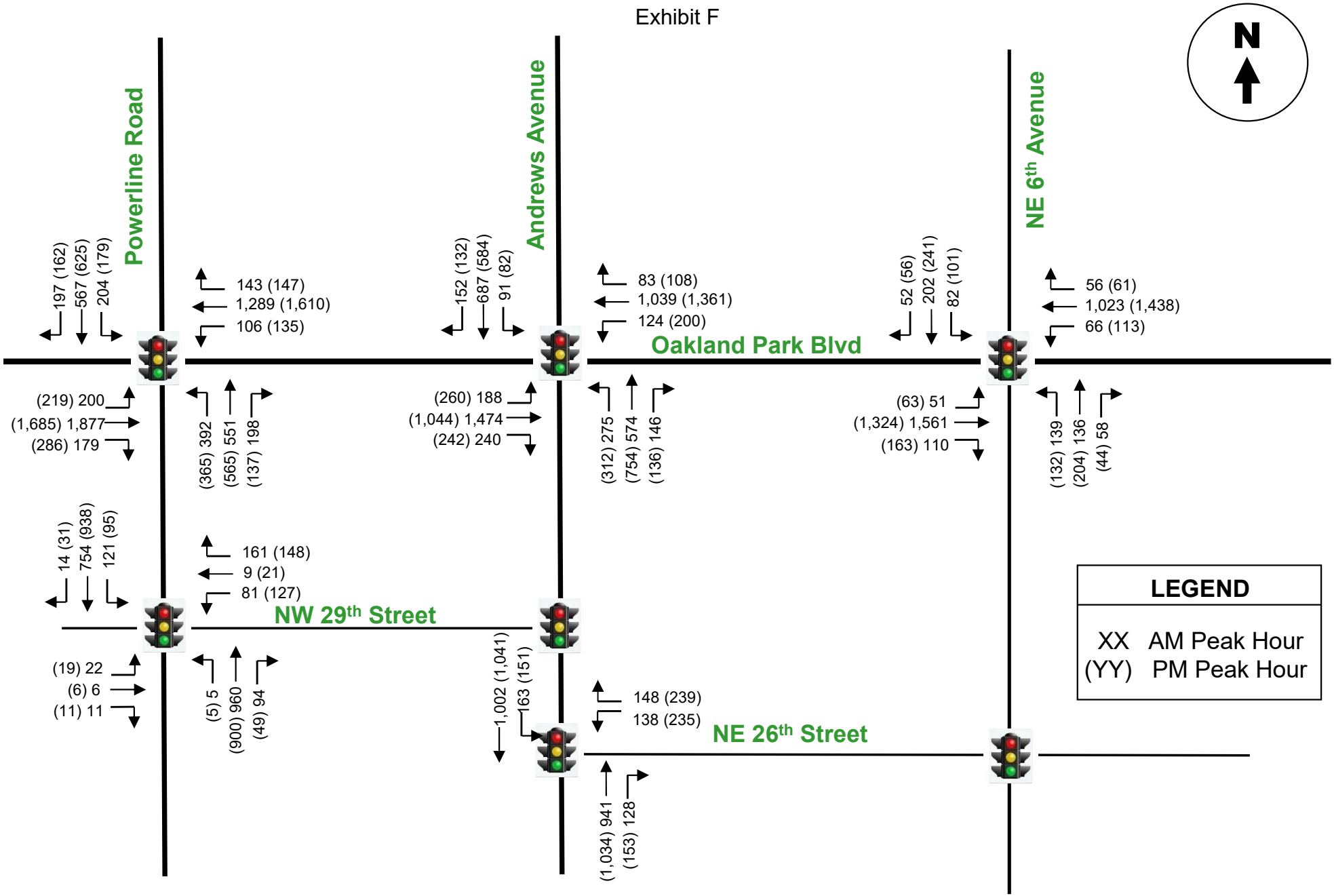


TRAFTECH ENGINEERING, INC.

EXISTING LANE GEOMETRY

FIGURE 2
The Ave
Wilton Manors, Florida

Exhibit F

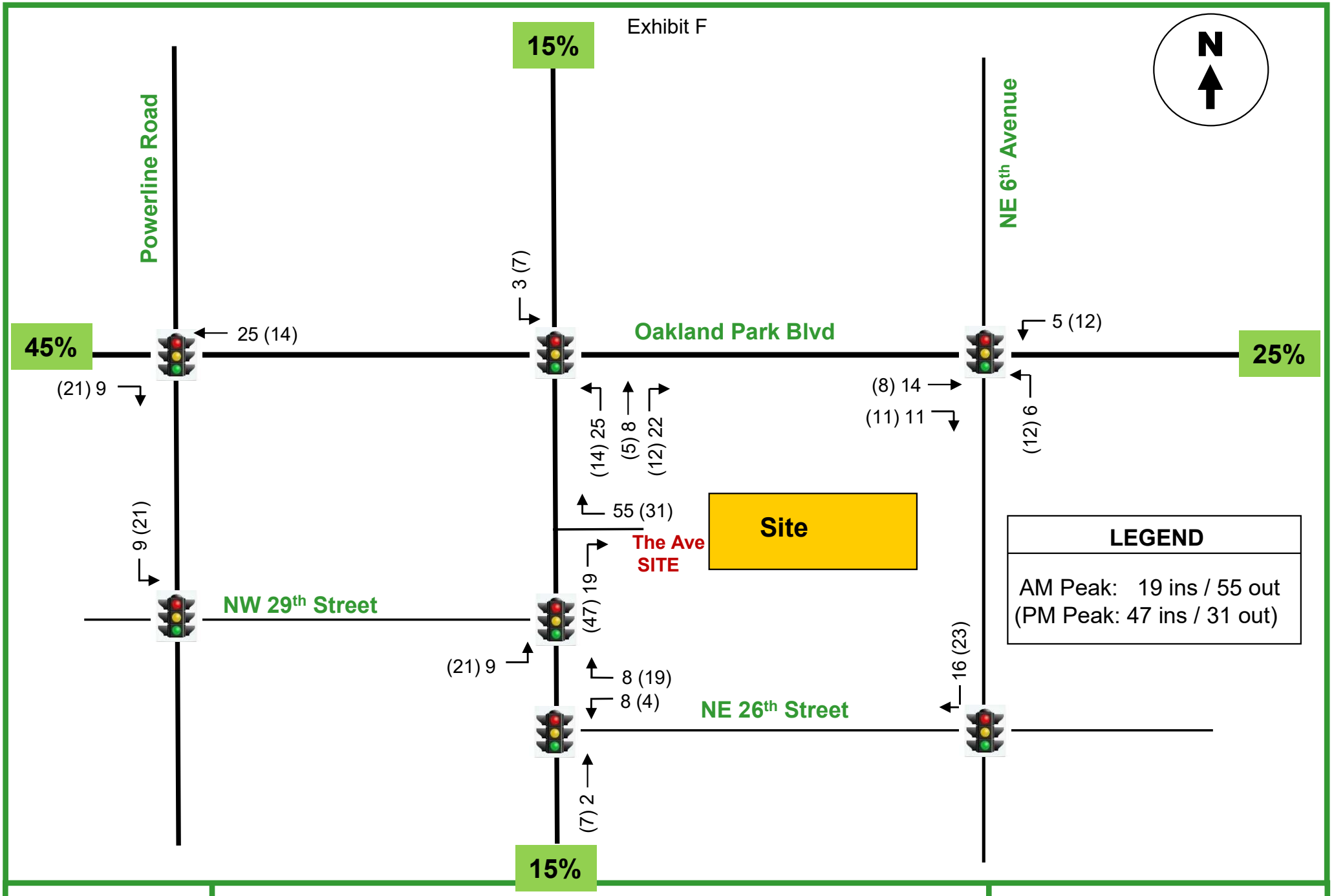


TRAFTECH ENGINEERING, INC.

EXISTING TRAFFIC COUNTS – AM & (PM) Peak Hour

FIGURE 3
The Ave
Wilton Manors, Florida

Exhibit F

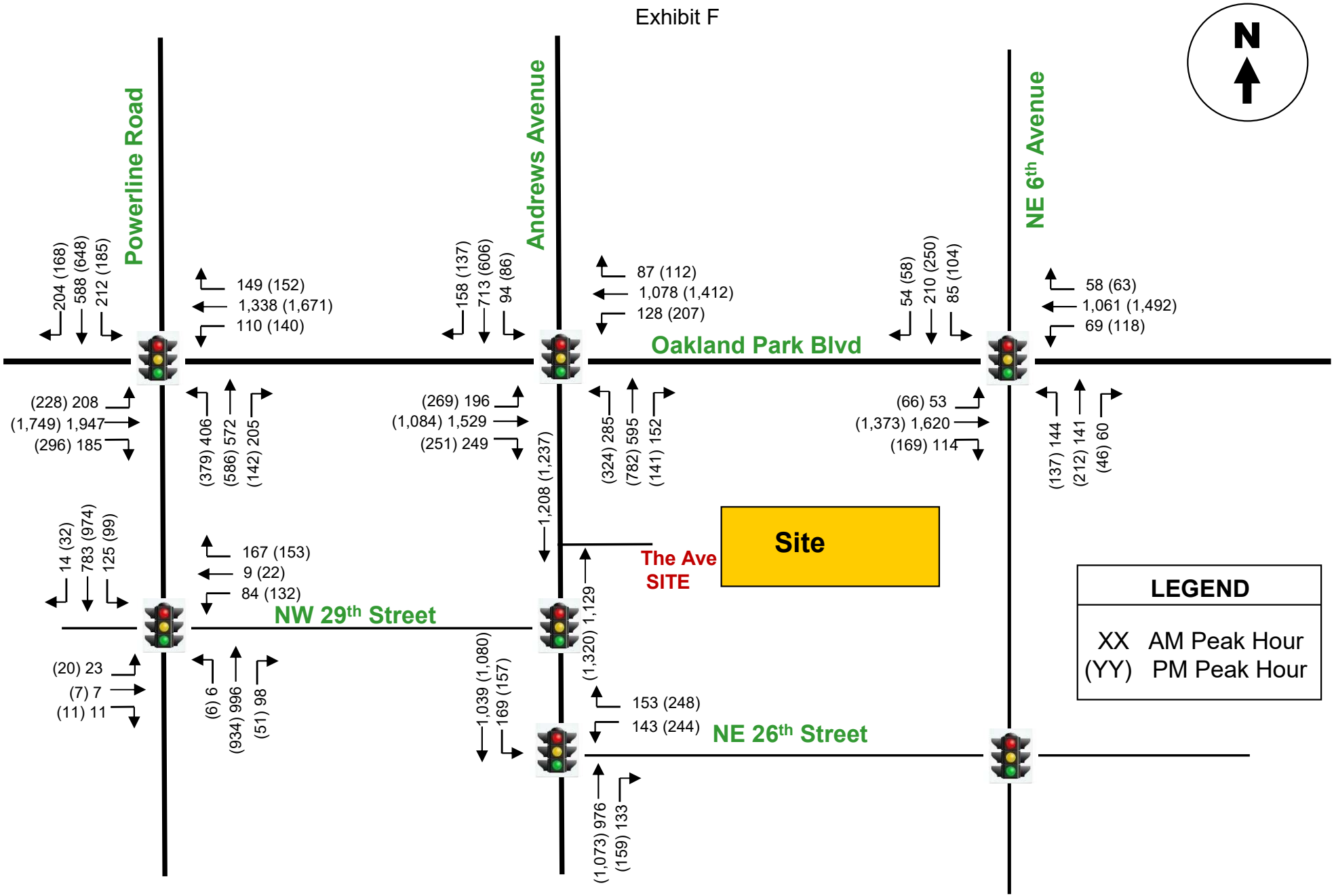


TRAFTECH ENGINEERING, INC.

Traffic Assignment

FIGURE 4
The Ave
Wilton Manors, Florida

Exhibit F

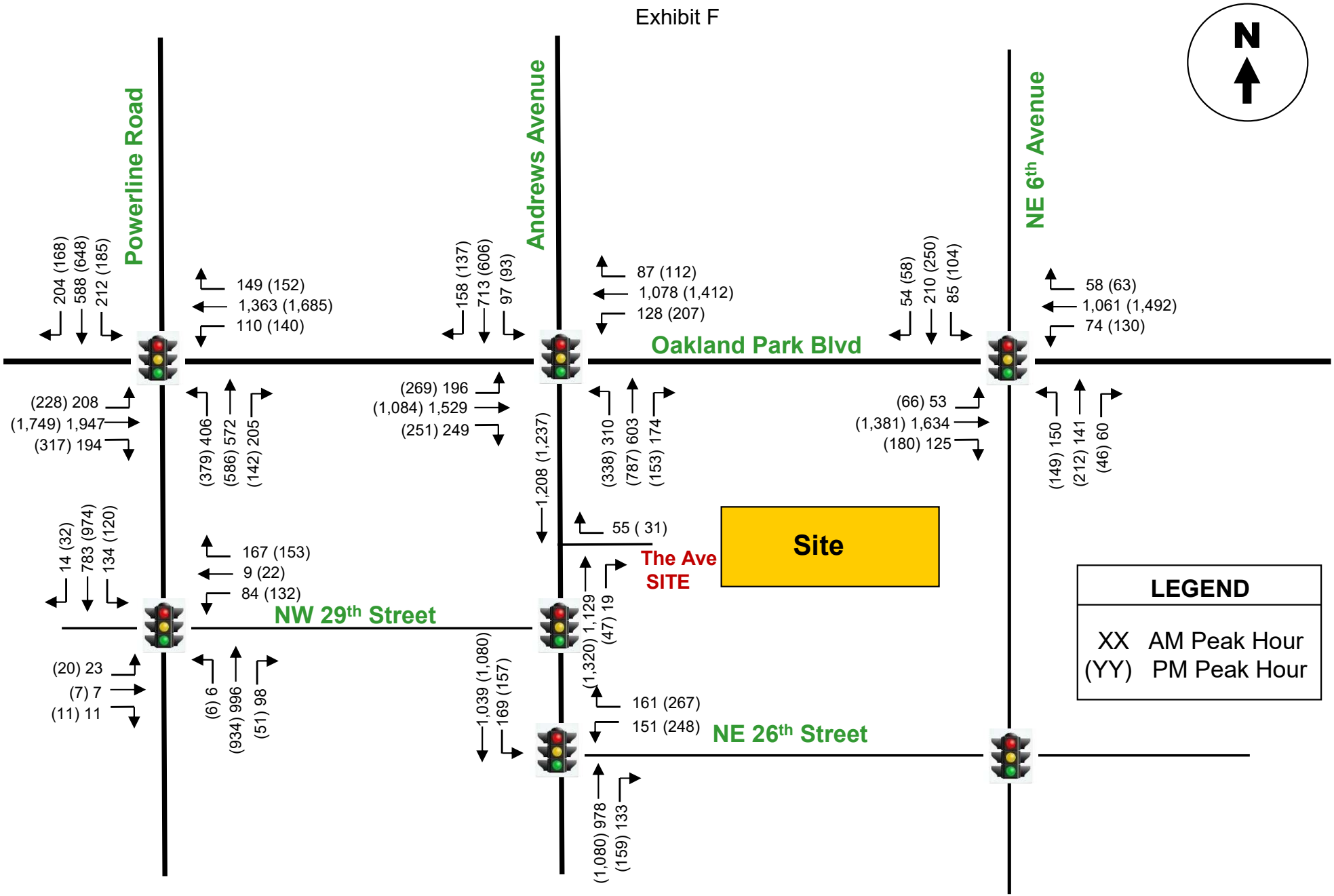


TRAFTECH ENGINEERING, INC.

BACKGROUND TRAFFIC – Year 2025
AM & (PM) Peak Hour

FIGURE 5
The Ave
Wilton Manors, Florida

Exhibit F



TRAFTECH ENGINEERING, INC.

TOTAL TRAFFIC VOLUMES
(Year 2025 Peak Season)

FIGURE 6
The Ave
Wilton Manors, Florida

TABLE 3
The Ave
Existing Traffic Conditions (Daily Volumes)

Roadway	From	To	Number of Lanes	Roadway Capacity	Current Daily Volume	Level of Service	
						Adopted	Current
Oakland Park Blvd	I-95	Andrews Ave	6	50,000	65,500	D	F
	Andrews Ave	Dixie Highway	6	50,000	41,500	D	D
	Dixie Highway	US 1	6	50,000	41,500	D	D
NE 26 Street	Dixie Highway	US 1	4	29,160	17,500	D	D
Andrews Avenue	Sunrise Blvd	Oakland Park Bl	4	29,160	18,300	D	D
	Oakland Park Bl	Prospect Rd	4	29,160	29,000	D	D
Wilton Drive	Sunrise Blvd	Dixie Highway	2	14,800	18,500	D	F
Dixie Highway	Oakland Park Bl	NE 38 Street	4	32,400	23,000	D	D

Source: Broward County Metropolitan Planning Organization

TABLE 4
The Ave
Existing Traffic Conditions (PM Peak Hour Volumes)

Roadway	From	To	Number of Lanes	Roadway Capacity	Current Peak Hour Volume	Level of Service	
						Adopted	Current
Oakland Park Blvd	I-95	Andrews Ave	6	4,500	6,223	D	F
	Andrews Ave	Dixie Highway	6	4,500	3,943	D	D
	Dixie Highway	US 1	6	4,500	3,943	D	D
NE 26 Street	Dixie Highway	US 1	4	2,628	1,663	D	D
Andrews Avenue	Sunrise Blvd	Oakland Park Bl	4	2,628	1,739	D	D
	Oakland Park Bl	Prospect Rd	4	2,628	2,755	D	F
Wilton Drive	Sunrise Blvd	Dixie Highway	2	1,330	1,758	D	F
Dixie Highway	Oakland Park Bl	NE 38 Street	4	2,920	2,185	D	D

Source: Broward County Metropolitan Planning Organization

TABLE 5
The Ave
Project Impacts (Daily Volumes)

Roadway	From	To	Number of Lanes	Roadway Capacity	Project Traffic = 876		Project Impacts	
					Percent	Trips	% of Cap.	Significant
Oakland Park Blvd	I-95	Andrews Ave	6	50,000	45%	394	0.8%	No
	Andrews Ave	Dixie Highway	6	50,000	25%	219	0.4%	No
	Dixie Highway	US 1	6	50,000	10%	88	0.2%	No
NE 26 Street	Dixie Highway	US 1	4	29,160	5%	44	0.2%	No
Andrews Avenue	Sunrise Blvd	Oakland Park Bl	4	29,160	15%	131	0.5%	No
	Oakland Park Bl	Prospect Rd	4	29,160	15%	131	0.5%	No
Wilton Drive	Sunrise Blvd	Dixie Highway	2	14,800	5%	44	0.3%	No
Dixie Highway	Oakland Park Bl	NE 38 Street	4	32,400	5%	44	0.1%	No

Source: Broward County Metropolitan Planning Organizatior

TABLE 6
The Ave
Project Impacts (PM Peak Hour Volumes)

Roadway	From	To	Number of Lanes	Roadway Capacity	Project Traffic = 78		Project Impacts	
					Percent	Trips	% of Cap.	Significant
Oakland Park Blvd	I-95	Andrews Ave	6	4,500	45%	35	0.8%	No
	Andrews Ave	Dixie Highway	6	4,500	25%	20	0.4%	No
	Dixie Highway	US 1	6	4,500	10%	8	0.2%	No
NE 26 Street	Dixie Highway	US 1	4	2,628	5%	4	0.1%	No
Andrews Avenue	Sunrise Blvd	Oakland Park Bl	4	2,628	15%	12	0.4%	No
	Oakland Park Bl	Prospect Rd	4	2,628	15%	12	0.4%	No
Wilton Drive	Sunrise Blvd	Dixie Highway	2	1,330	15%	12	0.9%	No
Dixie Highway	Oakland Park Bl	NE 38 Street	4	2,920	5%	4	0.1%	No

Source: Broward County Metropolitan Planning Organization

TABLE 7A
Level of Service Analyses
The Ave

Intersection	Time Period	EASTBOUND		WESTBOUND		NORTHBOUND		SOUTHBOUND		Intersection	
		Approach		Approach		Approach		Approach			
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Andrews Avenue & Oakland Park Boulevard	AM	C/C/C	30.7/33.3/33.3	C/C/C	27.8/29.8/29.8	E/E/E	55.1/57.3/66.5	F/F/F	89.8/93.5/93.4	D/D/D	45.6/48.2/50.2
	PM	C/C/C	29.6/33.0/33.8	C/C/C	29.5/32.3/33.2	F/F/F	103.1/107.7/104.5	F/F/F	98.5/106.4/106.0	E/E/E	57.1/61.2/61.2
	Queues	EBL (480)		WBL (320)		NBL(260)		SBL(355)			
		AM	173/200/202	AM	m#213/m#224/m#220	AM	#272/#287/#324	AM	118/120/125		
		PM	#417/#439/#437	PM	m319/m326/m326	PM	227/239/253	PM	113/119/130		
Powerline Road & Oakland Park Boulevard	AM	E/E/F	68.4/79.2/80.9	D/D/D	49/50.7/51.6	F/F/F	366.6/401.4/401.4	F/F/F	367/394.9/394.9	F/F/F	170/185.8/186.0
	PM	E/E/F	74.2/78.2/80.7	E/E/E	55.1/62.8/63.4	F/F/F	405.9/443.6/443.6	F/F/F	275.2/296.0/296.0	F/F/F	157.9/171.5/172.1
Powerline Road & NW 29 Street	AM	C/C/C	33.5/33.4/33.4	C/C/C	32.9/32.6/32.6	B/B/B	10.2/11.2/11.5	A/A/A	2.4/2.6/2.7	B/B/B	10/10.6/10.7
	PM	E/E/E	68.6/68.3/68.3	E/E/E	68.8/69.0/69.0	A/A/A	2.9/3.3/3.5	A/A/A	0.6/0.6/0.7	B/B/B	11.1/11.3/11.4
Andrews Avenue & NE 26th Street	AM			D/D/D	40.5/40.4/40.2	A/A/A	5.0/5.4/5.7	A/A/A	1.2/1.3/1.4	A/A/A	7.3/7.5/7.8
	PM			D/D/D	47.6/48.5/49.3	A/B/B	9.2/10.2/11.2	A/A/A	2.7/3.0/3.4	B/B/B	12.9/13.6/14.5
Oakland Park Boulevard & NE 6 Avenue	AM	B/B/B	15.5/16.6/17.2	C/C/C	23.0/24.0/24.6	E/E/E	68.3/69.7/71.5	E/E/E	78.3/79.3/79.3	C/C/C	28.9/29.9/30.6
	PM	C/C/C	22.4/23.4/25.5	C/C/C	28.1/29.2/30.9	E/E/E	71.3/74.2/73.9	F/F/F	100.3/107.9/107.8	D/D/D	37.3/39.2/40.7
Driveway & Andrews Avenue	AM			B	10.60						
	PM			B	10.40						

SOURCE: SYNCHRO. LEGEND: Existing/Background/Future

Andrews Avenue & Oakland Park Boulevard

Table 7B
Level of Service Analyses - Andrews Avenue & Oakland Park Boulevard
The Ave

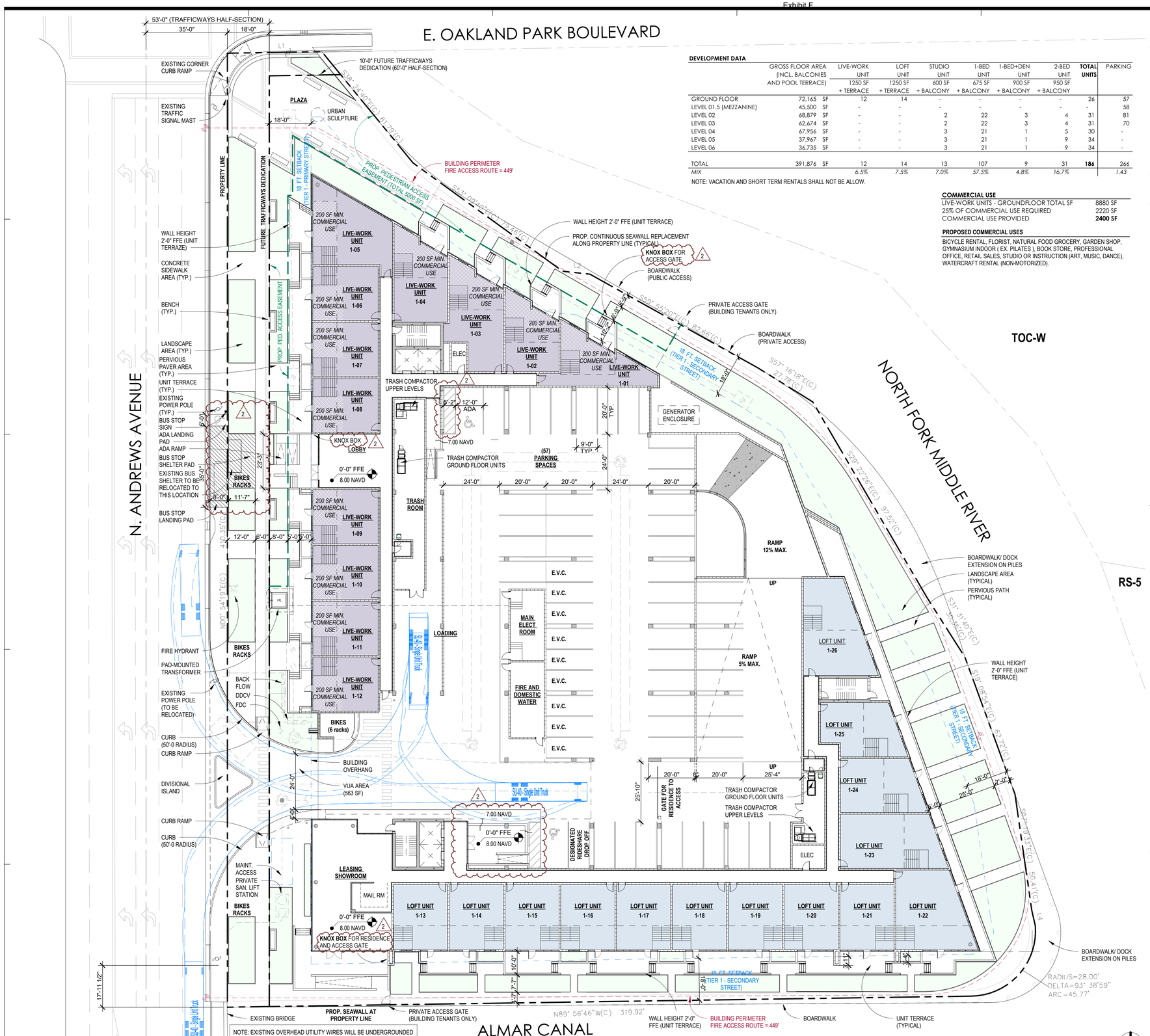
Intersection	Time Period	EASTBOUND Approach		WESTBOUND Approach		NORTHBOUND Approach		SOUTHBOUND Approach		Intersection	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Andrews Avenue & Oakland Park Boulevard	AM	C/C/C/**C**	30.7/33.3/33.3/**33.4**	C/C/C/**C**	27.8/29.8/29.8/**29.9**	E/E/E/**E**	55.1/57.3/66.5/**60.7**	F/F/F/**F**	89.8/93.5/93.4/**99.0**	D/D/D/**D**	45.6/48.2/50.2/**50.1**
	Queues					NBL(260)					
						AM	#272/#287/#324/**#312**				

SOURCE: SYNCHRO. LEGEND: Existing/Background/Future/**Future with Optimization**

Table 8 Queuing Analysis at Entry Gate The Ave				
		Peak Hour		
Location	Category of Traffic Demand	Demand (vph)	Service Rate (vph)	95th Percentile Queue (vehicles)
Resident's Gate	Residents	**47**	**300**	**1 vehicle or 25 ft**

ATTACHMENT A

Site Plan for The Ave



1 AR-100 SITE PLAN
Scale: 1" = 20'-0"

DEVELOPMENT DATA

	GROSS FLOOR AREA (INCL. BALCONIES AND POOL TERRACE)		LIVE-WORK UNIT 1250 SF + TERRACE	LOFT UNIT 1250 SF + TERRACE	STUDIO UNIT 600 SF + BALCONY	1-BED UNIT 675 SF + BALCONY	1-BED+DEN UNIT 900 SF + BALCONY	2-BED UNIT 950 SF + BALCONY	TOTAL UNITS	PARKING
GROUND FLOOR	72,165	SF	12	14	-	-	-	-	26	57
LEVEL 01.5 (MEZZANINE)	45,500	SF	-	-	-	-	-	-	-	58
LEVEL 02	68,879	SF	-	-	2	22	3	4	31	81
LEVEL 03	62,674	SF	-	-	2	22	3	4	31	70
LEVEL 04	67,956	SF	-	-	3	21	1	5	30	-
LEVEL 05	37,967	SF	-	-	3	21	1	9	34	-
LEVEL 06	36,735	SF	-	-	3	21	1	9	34	-
TOTAL	391,876	SF	12	14	13	107	9	31	**186**	266
MIX			6.5%	7.5%	7.0%	57.5%	4.8%	16.7%		*1.43*

NOTE: VACATION AND SHORT TERM RENTALS SHALL NOT BE ALLOW.

COMMERCIAL USE

LIVE-WORK UNITS - GROUNDFLOOR TOTAL SF	8880 SF
25% OF COMMERCIAL USE REQUIRED	2220 SF
COMMERCIAL USE PROVIDED	**2400 SF**

PROPOSED COMMERCIAL USES

BICYCLE RENTAL, FLORIST, NATURAL FOOD GROCERY, GARDEN SHOP, GYMNASIUM INDOOR (EX. PILATES) BOOK STORE, PROFESSIONAL OFFICE, RETAIL SALES, STUDIO OR INSTRUCTION (ART, MUSIC, DANCE), WATERCRAFT RENTAL (NON-MOTORIZED).

PROPERTY INFO, ZONING AND DEVELOPMENT DATA

PROJECT	THE AVE
PROPERTY OWNER	ANDREWS AVENUE WILTON MONORS LLC
ADDRESS	3058 - 3064 N. ANDREWS AVENUE WILTON MANORS, FL 33334
FOLIO NUMBER	494227170200; 494227180010; 494227180020;
LEGAL DESCRIPTION	REFER TO SURVEY
JURISDICTION	BROWARD COUNTY CITY OF WILTON MANORS
FUTURE LAND USE DESIGNATION	ACTIVITY CENTER

PROJECT SCOPE

186 UNIT MULTI-FAMILY APARTMENT BUILDING INCLUDING GROUND LEVEL LIVE-WORK UNITS.

ZONING (TOC-W)

	REQUIRED	PROVIDED
LOT AREA (GROSS)	NO MINIMUM	3.1 ACRES (PER BCPC)
LOT AREA (NET)	NO MINIMUM	100,525 SF (2.3 ACRES)
LOT WIDTH	NO MINIMUM	410.35'
LOT DEPTH	NO MINIMUM	VARIES, ± 347' - ± 40'
DENSITY	60 DU/ ACRE (MAX) 3.1 X 60 = 186 UNITS (MAX)	186 UNITS
BUILDING FLOOR AREA (TOTAL GROSS)	NO MIN/ MAX	336,042 SF
VEHICULAR USE AREA (VUA)	NO MIN/ MAX	563 SF (0.5%)
BUILDING FOOTPRINT COVERAGE	NO MIN/ MAX	65,176 SF (64.8%)
OPEN SPACE	NO MIN/ MAX	35,349 SF (35.2%)
ROOF COVERAGE	NO MIN/ MAX	70,316 SF
PERVIOUS AREA (PLOT > 2.0 - 2.5 ACRES)	12% MIN. 2	14,447 SF (14.3%)
PAVED AREA IN PEDESTRIAN FRONTAGE AREA	NO MIN/ MAX	19,426 SF (19.3%)
PARKING		
RESIDENTIAL (1.5 SPACES PER DU)	186 x (1.5) SPACES = 279 SPACES	LO1 57 SPACES LO1M 58 SPACES LO2 81 SPACES LO3 70 SPACES (INCL. 8 H/C SPACES)
COMMERCIAL (LIVE-WORK OFFICE) (1 SPACE PER 300 SF)	12 UNITS X 200 SF EA. = 2400 SF / 300 SF = 8 SPACES	
TOTAL	287 SPACES (MIN)	TOTAL 266 SPACES(*)
ELECTRIC VEHICLE CHARGING STATIONS	5% OF REQD. PARKING = 15	20 SPACES (E.V.C) 2
BICYCLE PARKING	1 PER 5 UNITS = 38 SPACES NON RESIDENTS = 6 SPACES	38 SPACES 6 SPACES
DWELLING UNIT MIN. FLOOR AREA	600 SF (MIN)	600 SF (MIN)
BUILDING HEIGHT/URBAN FORM DESIGN STD. :		
- TIER 1 -		
(WEST) ANDREWS AVE	18'-0" (PRIMARY STREET)	18-0"
(NORTH) OAKLAND PARK	18'-0" (PRIMARY STREET)	VARIES (18'-0" MIN.)
(EAST) N. FORK MIDDLE RIVER	18'-0" (SECONDARY STREET)	VARIES (18'-0" MIN.)
(SOUTH) ALMAR CANAL	18'-0" (SECONDARY STREET)	VARIES (18'-0" MIN.)
BUILDING HEIGHT (TIER 1)	3 STORIES (MAX)	3 STORIES
- TIER 2 -		
(WEST) ANDREWS AVE	35'-0" (PRIMARY STREET)	35'-0"
(NORTH) OAKLAND PARK	35'-0" (PRIMARY STREET)	VARIES (35'-0" MIN.)
(EAST) N. FORK MIDDLE RIVER	25'-0" (SECONDARY STREET)	VARIES (25'-0" MIN.)
(SOUTH) ALMAR CANAL	25'-0" (SECONDARY STREET)	VARIES (25'-0" MIN.)
BUILDING HEIGHT (TOTAL)	6 STORIES, 70'-0" (MAX)	6 STORIES, 70'-0" (**)
SITE DESIGN STANDARDS :		
STREETSCAPE FRONTAGE SETBACK		
(WEST) ANDREWS AVE	5' (PRIMARY STREET)	
(NORTH) OAKLAND PARK	5' (PRIMARY STREET)	
(EAST) N. FORK MIDDLE RIVER	5' (SECONDARY STREET)	
(SOUTH) ALMAR CANAL	5' (SECONDARY STREET)	
PEDESTRIAN REALM FRONTAGE SETBACK		
(WEST) ANDREWS AVE	18' (PRIMARY STREET)	
(NORTH) OAKLAND PARK	18' (PRIMARY STREET)	
(EAST) N. FORK MIDDLE RIVER	18' (SECONDARY STREET)	
(SOUTH) ALMAR CANAL	18' (SECONDARY STREET)	
FACADE/ARCHITECTURAL PROJECTIONS :		
(WEST, NORTH, EAST & SOUTH) PRIMARY STREETS / SECONDARY STREET (SEC. 030-050.M.3.b)	8'-0" (MAX) ARCHITECTURAL ELEMENTS	8'-0" (MAX.)
(WEST, NORTH, EAST & SOUTH) PRIMARY STREETS / SECONDARY STREET (SEC. 030-050.M.3.b)	8'-0" (MAX) AWNINGS, CANOPIES, BALCONIES	8'-0" (MAX.)

(*) SHALL REQUIRE ALTERNATIVE PARKING NEEDS ANALYSIS AND PAYMENT IN LIEU OF PARKING BASED ON THE DIFFERENCE BETWEEN REQUIRED AND PROVIDED PARKING.
(**) SHALL REQUIRE ADDITIONAL HEIGHT INCENTIVE DESIGN STANDARDS BE MET.

ADDITIONAL HEIGHT INCENTIVE STANDARDS

		REQUIRED	PROVIDED
A	STREET ACTIVATION	FIRST FLOOR ACTIVE USES AT FRONTAGE	LIVE WORK UNITS, BUILDING LOBBY, AND LEASING OFFICE/ PLAZAS
B	OPEN SPACE DEDICATION	5000 SF MIN.	5000 SF; NW 'GATEWAY' PLAZA, CONNECTING FRONTAGE PROMENADE & WATERFRONT BOARDWALK
C	ENHANCED LANDSCAPING	ADDITIONAL 25% OF HEIGHT OF TREES, PALMS AND LANDSCAPING	REFER TO LANDSCAPE PLAN
D	GREEN BUILDING CERTIFIED PROFESSIONAL: ANNETTE BEN-HABIB CONSULTING ENGINEERING SERVICES	WILTON MANORS GREEN BUILDING PROGRAM: ACHIEVE DOUBLE THE POINTS REQUIRED FOR PROPOSED USE (MIXED-USE) (14) POINTS X 2 = 28 POINTS (MIN.)	2 WILTON MANORS GREEN BUILDING PROGRAM: EV CHARGING = (10) PTS. WHITE ROOF = (4) PTS. COOL PAVING = (4) PTS. 100% NATIVE = (2) PTS. 100% ENERGY STAR = (4) PTS. PERMEABLE SURFAXCE= (2) PTS. SITE CERTIFICATION = (2) PTS. TOTAL: **28 GREEN POINTS**
E	PERVIOUS PAVING	ALL PERVIOUS PAVING	YES
F	PUBLIC ART, MURAL, OR WATER FEATURE; OR ALTERNATIVE TRANSPORTATION INFRASTRUCTURE; OR BIOSWALE/ ALTERNATIVE DRAINAGE DESIGN	VARIOUS OPTIONS	YES; PUBLIC ART/ SCULPTURE AT NW CORNER PLAZA

FSMY ARCHITECTS + PLANNERS
888 SOUTH ANDREWS AVE, SUITE 300
FORT LAUDERDALE, FLORIDA 33316
PH:(954)764-6575 FAX:(954)764-8622

CA # AAC000447

DESIGNED	DRAWN	CHECKED
Designer	Author	Checker

2	City Comments	08-22-22
1	City Comments	05-27-22

REVISIONS

DATE: 15 MARCH 2022
COMM: 21005

THE AVE

3058 - 3064 N. Andrews Avenue
Wilton Manors, FL 33334

SITE PLAN

SITE PLAN APPROVAL

AR-100

22/08/2022 12:27:16

ATTACHMENT B

Traffic Counts and Signal Timing Data

Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 1

Groups Printed- Peds & Bikes

	Andrews Ave From North				Oakland Park Blvd From East				Andrews Ave From South				Oakland Park Blvd From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	4	6
07:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
07:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	7
Total	0	0	0	1	1	0	0	1	0	0	0	1	1	0	0	13	18
08:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
08:15	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	3
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	4	7
*** BREAK ***																	
16:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
*** BREAK ***																	
Total	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	7
17:00	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2
17:15	0	0	0	1	1	0	0	3	0	0	0	0	0	0	0	1	6
17:30	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
*** BREAK ***																	
Total	0	0	0	1	2	0	0	4	0	0	0	0	2	0	0	1	10
Grand Total	0	0	0	2	5	0	0	7	0	0	0	1	4	0	0	23	42
Apprch %	0	0	0	100	41.7	0	0	58.3	0	0	0	100	14.8	0	0	85.2	
Total %	0	0	0	4.8	11.9	0	0	16.7	0	0	0	2.4	9.5	0	0	54.8	

Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Andrews Ave From North					Oakland Park Blvd From East					Andrews Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	26	137	17	1	181	6	184	37	0	227	15	81	48	0	144	59	267	40	3	369	921
07:15	37	141	16	0	194	5	224	25	0	254	21	96	60	0	177	79	292	26	5	402	1027
07:30	35	186	20	0	241	14	236	34	0	284	34	148	79	0	261	59	302	41	1	403	1189
07:45	37	144	19	0	200	17	232	33	0	282	40	141	54	0	235	65	392	35	5	497	1214
Total	135	608	72	1	816	42	876	129	0	1047	110	466	241	0	817	262	1253	142	14	1671	4351
08:00	42	160	17	0	219	28	276	34	0	338	30	128	69	0	227	53	367	40	6	466	1250
08:15	34	177	32	0	243	22	265	19	0	306	38	140	65	0	243	56	370	54	1	481	1273
08:30	32	146	20	0	198	28	280	30	0	338	32	133	72	0	237	50	303	52	6	411	1184
08:45	37	150	26	0	213	29	225	31	0	285	37	134	57	0	228	41	229	31	2	303	1029
Total	145	633	95	0	873	107	1046	114	0	1267	137	535	263	0	935	200	1269	177	15	1661	4736
*** BREAK ***																					
16:00	40	130	19	0	189	29	274	41	0	344	29	135	48	0	212	47	263	58	5	373	1118
16:15	34	109	23	0	166	30	260	42	1	333	25	111	48	0	184	51	236	57	5	349	1032
16:30	31	137	21	0	189	25	239	26	0	290	23	163	53	0	239	42	198	48	7	295	1013
16:45	32	178	22	0	232	21	312	29	1	363	31	177	66	0	274	45	221	71	2	339	1208
Total	137	554	85	0	776	105	1085	138	2	1330	108	586	215	0	909	185	918	234	19	1356	4371
17:00	34	141	14	0	189	27	344	41	1	413	36	171	79	0	286	51	229	51	6	337	1225
17:15	19	126	14	0	159	24	352	52	1	429	34	161	88	0	283	51	277	52	9	389	1260
17:30	29	148	23	0	200	29	335	48	0	412	32	204	73	0	309	63	248	63	7	381	1302
17:45	46	152	29	0	227	25	290	50	1	366	30	196	63	0	289	70	260	55	9	394	1276
Total	128	567	80	0	775	105	1321	191	3	1620	132	732	303	0	1167	235	1014	221	31	1501	5063
Grand Total	545	2362	332	1	3240	359	4328	572	5	5264	487	2319	1022	0	3828	882	4454	774	79	6189	18521
Apprch %	16.8	72.9	10.2	0		6.8	82.2	10.9	0.1		12.7	60.6	26.7	0		14.3	72	12.5	1.3		
Total %	2.9	12.8	1.8	0	17.5	1.9	23.4	3.1	0	28.4	2.6	12.5	5.5	0	20.7	4.8	24	4.2	0.4	33.4	
Autos	515	2320					4215					2281					4327				18064
% Autos	94.5	98.2	97	100	97.5	98.3	97.4	98.6	100	97.6	97.7	98.4	97.6	0	98.1	97.1	97.1	97.4	98.7	97.2	97.5
Heavy Vehicles																					
% Heavy Vehicles	5.5	1.8	3	0	2.5	1.7	2.6	1.4	0	2.4	2.3	1.6	2.4	0	1.9	2.9	2.9	2.6	1.3	2.8	2.5

Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 2

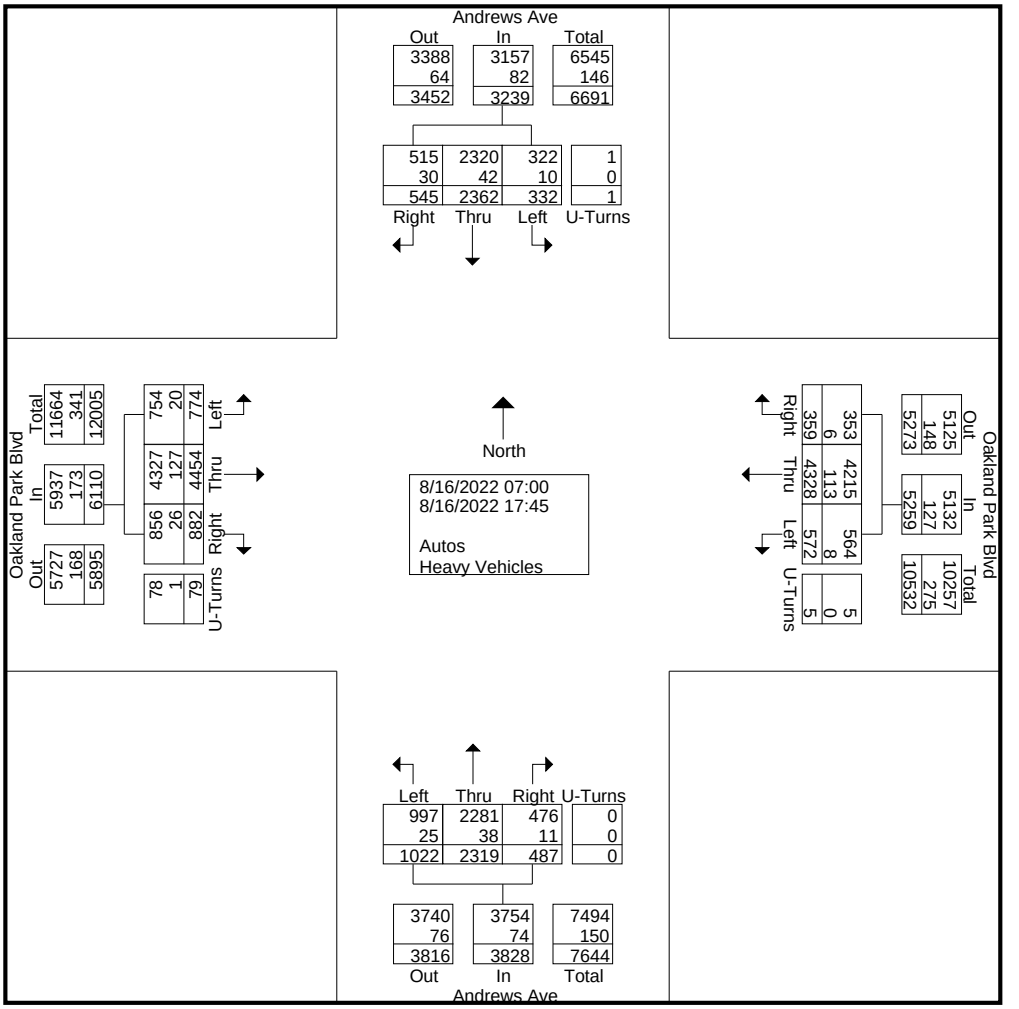


Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 3

	Andrews Ave From North					Oakland Park Blvd From East					Andrews Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	34	141	14	0	189	27	344	41	1	413	36	171	79	0	286	51	229	51	6	337	1225
17:15	19	126	14	0	159	24	352	52	1	429	34	161	88	0	283	51	277	52	9	389	1260
17:30	29	148	23	0	200	29	335	48	0	412	32	204	73	0	309	63	248	63	7	381	1302
17:45	46	152	29	0	227	25	290	50	1	366	30	196	63	0	289	70	260	55	9	394	1276
Total Volume	128	567	80	0	775	105	1321	191	3	1620	132	732	303	0	1167	235	1014	221	31	1501	5063
% App. Total	16.5	73.2	10.3	0		6.5	81.5	11.8	0.2		11.3	62.7	26	0		15.7	67.6	14.7	2.1		
PHF	.696	.933	.690	.000	.854	.905	.938	.918	.750	.944	.917	.897	.861	.000	.944	.839	.915	.877	.861	.952	.972
Autos	123	563	80	0	766	105	1304														
% Autos	96.1	99.3	100	0	98.8	100	98.7	99.5	100	98.9	99.2	99.2	98.0	0	98.9	98.3	98.4	97.7	100	98.3	98.7
Heavy Vehicles																					
% Heavy Vehicles	3.9	0.7	0	0	1.2	0	1.3	0.5	0	1.1	0.8	0.8	2.0	0	1.1	1.7	1.6	2.3	0	1.7	1.3

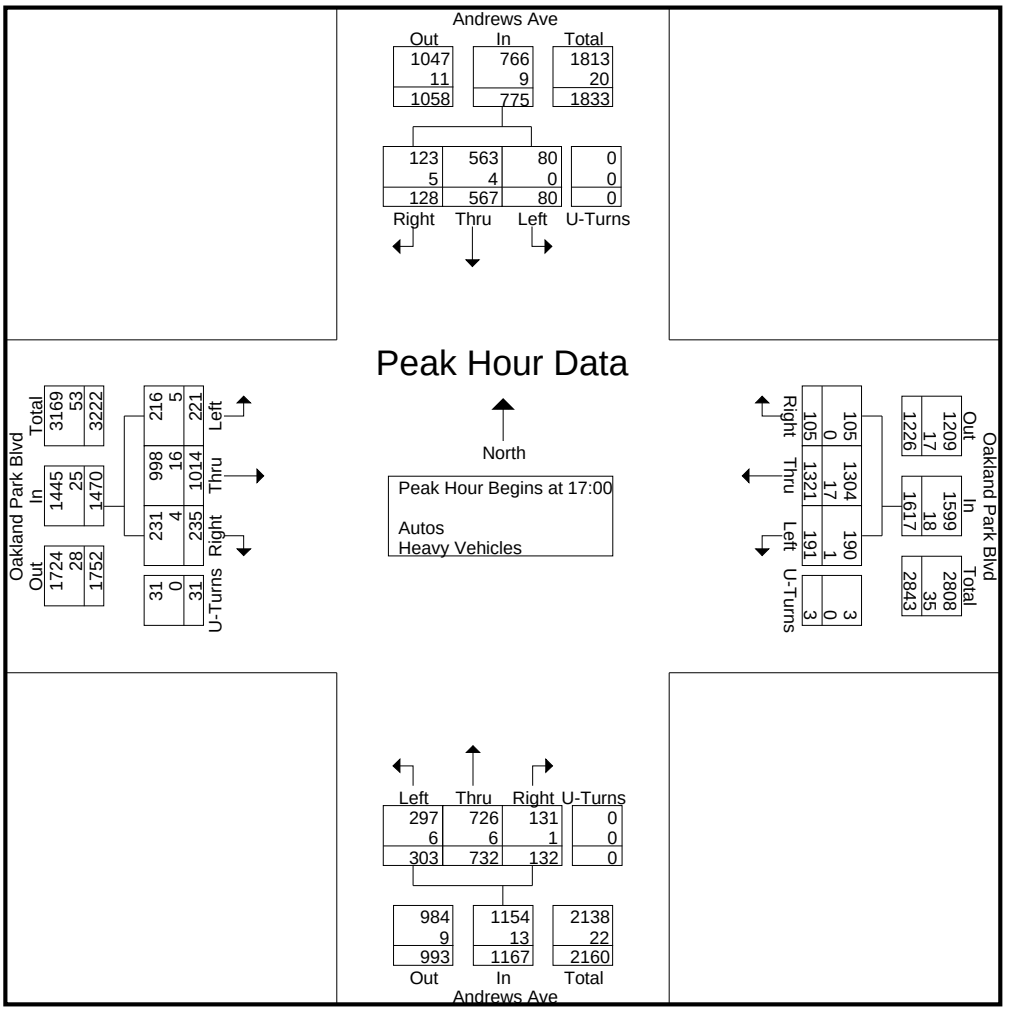


Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 4

	Andrews Ave From North					Oakland Park Blvd From East					Andrews Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	35	186	20	0	241	14	236	34	0	284	34	148	79	0	261	59	302	41	1	403	1189
07:45	37	144	19	0	200	17	232	33	0	282	40	141	54	0	235	65	392	35	5	497	1214
08:00	42	160	17	0	219	28	276	34	0	338	30	128	69	0	227	53	367	40	6	466	1250
08:15	34	177	32	0	243	22	265	19	0	306	38	140	65	0	243	56	370	54	1	481	1273
Total Volume	148	667	88	0	903	81	1009	120	0	1210	142	557	267	0	966	233	1431	170	13	1847	4926
% App. Total	16.4	73.9	9.7	0		6.7	83.4	9.9	0		14.7	57.7	27.6	0		12.6	77.5	9.2	0.7		
PHF	.881	.897	.688	.000	.929	.723	.914	.882	.000	.895	.888	.941	.845	.000	.925	.896	.913	.787	.542	.929	.967
Autos	138	648	83	0	869	79	969	119	0	1167	136	548	262	0	946	222	1376				
% Autos	93.2	97.2	94.3	0	96.2	97.5	96.0	99.2	0	96.4	95.8	98.4	98.1	0	97.9	95.3	96.2	96.5	100	96.1	96.6
Heavy Vehicles																					
% Heavy Vehicles	6.8	2.8	5.7	0	3.8	2.5	4.0	0.8	0	3.6	4.2	1.6	1.9	0	2.1	4.7	3.8	3.5	0	3.9	3.4

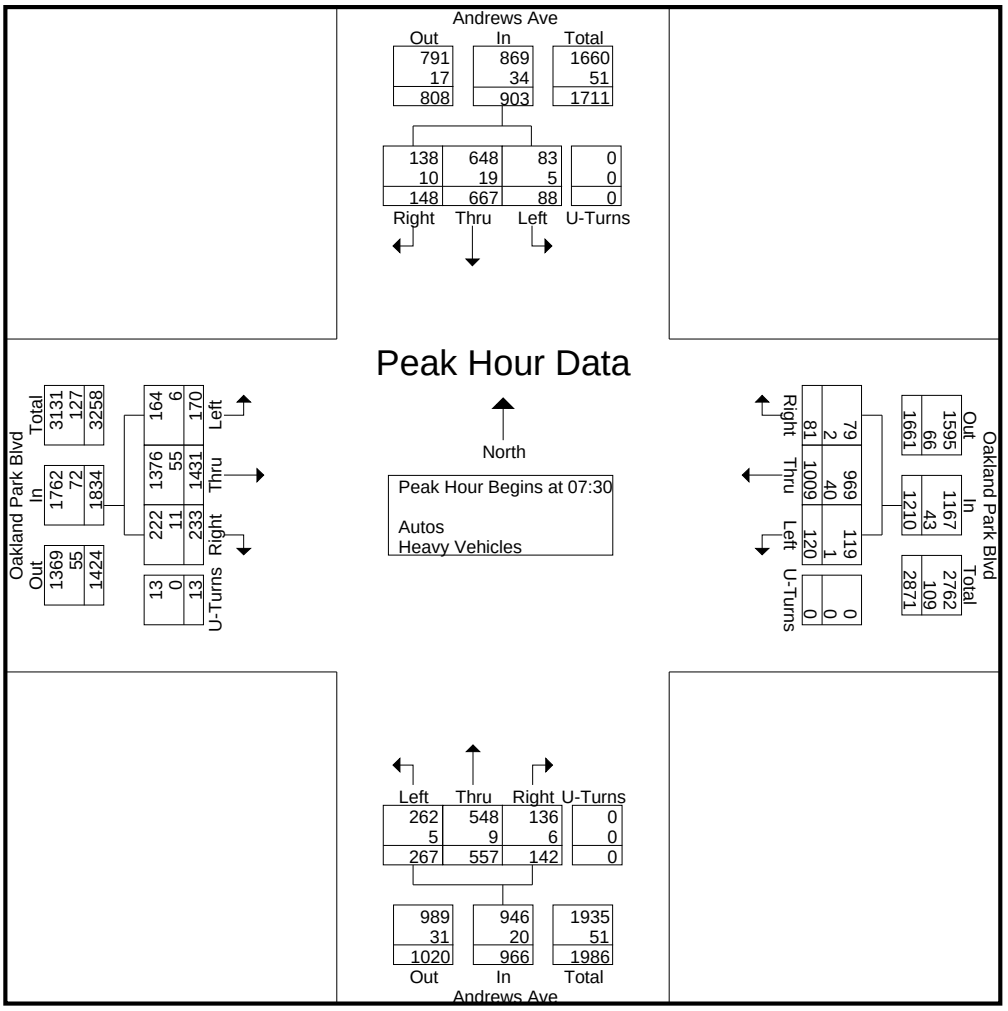


Exhibit F

Traf Tech Engineering Inc.

File Name : Oakland Park Blvd & Andrews Ave
Site Code : 00000000
Start Date : 8/16/2022
Page No : 5

	Andrews Ave From North					Oakland Park Blvd From East					Andrews Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	34	141	14	0	189	27	344	41	1	413	36	171	79	0	286	51	229	51	6	337	1225
17:15	19	126	14	0	159	24	352	52	1	429	34	161	88	0	283	51	277	52	9	389	1260
17:30	29	148	23	0	200	29	335	48	0	412	32	204	73	0	309	63	248	63	7	381	1302
17:45	46	152	29	0	227	25	290	50	1	366	30	196	63	0	289	70	260	55	9	394	1276
Total Volume	128	567	80	0	775	105	1321	191	3	1620	132	732	303	0	1167	235	1014	221	31	1501	5063
% App. Total	16.5	73.2	10.3	0		6.5	81.5	11.8	0.2		11.3	62.7	26	0		15.7	67.6	14.7	2.1		
PHF	.696	.933	.690	.000	.854	.905	.938	.918	.750	.944	.917	.897	.861	.000	.944	.839	.915	.877	.861	.952	.972
Autos	123	563	80	0	766	105	1304														
% Autos	96.1	99.3	100	0	98.8	100	98.7	99.5	100	98.9	99.2	99.2	98.0	0	98.9	98.3	98.4	97.7	100	98.3	98.7
Heavy Vehicles																					
% Heavy Vehicles	3.9	0.7	0	0	1.2	0	1.3	0.5	0	1.1	0.8	0.8	2.0	0	1.1	1.7	1.6	2.3	0	1.7	1.3

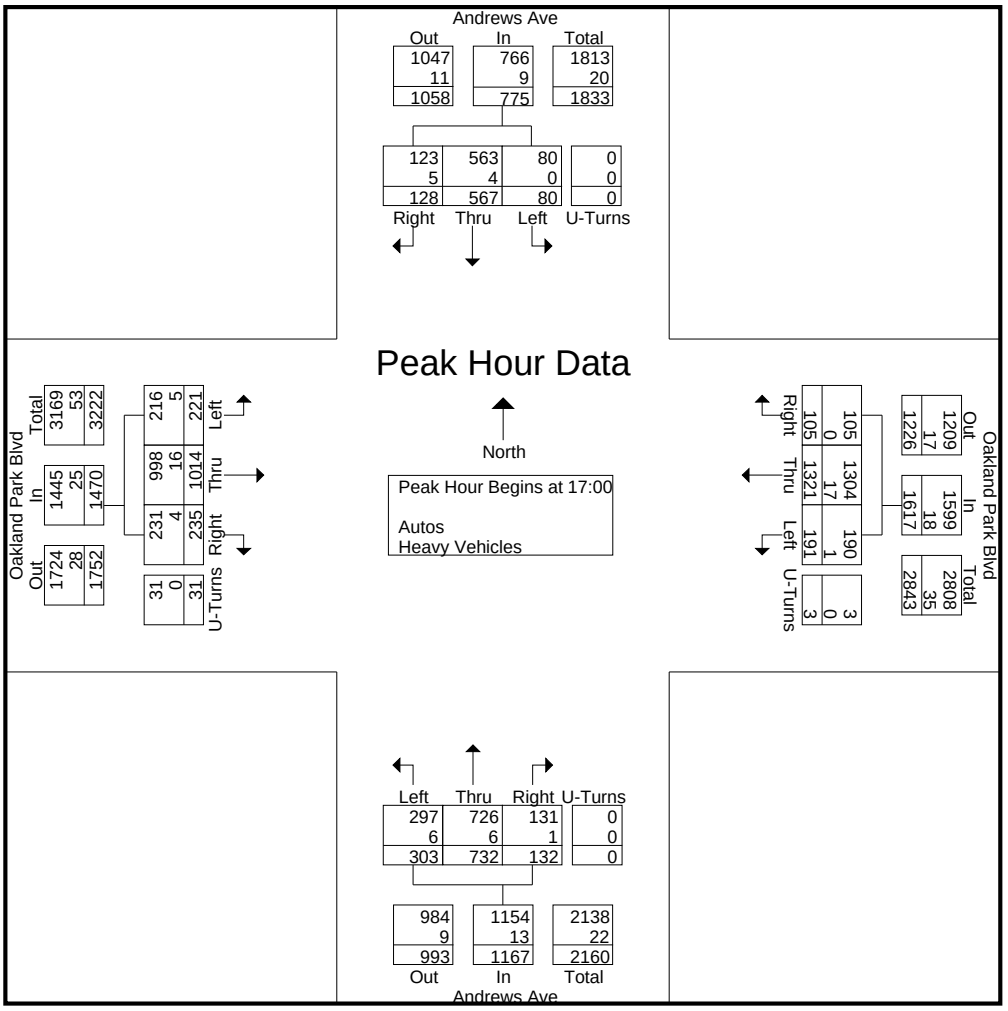


Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Peds & Bikes

	Powerline Rd From North				Oakland Park Blvd From East				Powerline Rd From South				Oakland Park Blvd From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	5
07:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	6
Total	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0	9	14
08:00	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	3
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
08:45	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	1	0	0	2	0	0	0	0	1	0	0	4	8
*** BREAK ***																	
16:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	7	9
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:30	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	3	7
*** BREAK ***																	
Total	1	0	0	1	0	0	0	2	0	0	0	0	2	0	0	11	17
17:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
17:15	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2	4
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
17:45	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	3	6
Total	0	0	0	2	0	0	0	3	0	0	0	0	3	0	0	6	14
Grand Total	1	0	0	4	1	0	0	9	0	0	0	2	6	0	0	30	53
Apprch %	20	0	0	80	10	0	0	90	0	0	0	100	16.7	0	0	83.3	
Total %	1.9	0	0	7.5	1.9	0	0	17	0	0	0	3.8	11.3	0	0	56.6	

Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Powerline Rd From North					Oakland Park Blvd From East					Powerline Rd From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	46	92	31	0	169	28	292	10	1	331	16	87	71	2	176	25	368	58	1	452	1128
07:15	50	122	44	2	218	23	320	26	0	369	33	90	94	0	217	41	426	45	1	513	1317
07:30	41	129	52	0	222	17	340	21	2	380	60	128	93	0	281	35	459	43	2	539	1422
07:45	53	134	40	0	227	41	292	28	0	361	54	130	91	0	275	59	428	49	2	538	1401
Total	190	477	167	2	836	109	1244	85	3	1441	163	435	349	2	949	160	1681	195	6	2042	5268
08:00	47	160	57	1	265	32	284	21	1	338	37	119	102	0	258	40	380	49	1	470	1331
08:15	43	107	38	3	191	44	289	22	4	359	34	138	80	0	252	33	487	36	5	561	1363
08:30	47	129	47	0	223	47	314	26	0	387	25	78	67	0	170	45	454	42	1	542	1322
08:45	37	118	60	3	218	44	282	18	2	346	34	111	64	0	209	48	449	51	6	554	1327
Total	174	514	202	7	897	167	1169	87	7	1430	130	446	313	0	889	166	1770	178	13	2127	5343
*** BREAK ***																					
16:00	68	146	40	5	259	27	362	21	1	411	30	93	62	0	185	50	342	41	5	438	1293
16:15	50	123	39	1	213	26	408	25	1	460	40	142	95	0	277	55	323	59	5	442	1392
16:30	66	123	39	2	230	31	317	25	2	375	40	122	65	0	227	61	390	53	3	507	1339
16:45	49	130	33	3	215	37	366	28	0	431	29	134	80	2	245	69	406	49	1	525	1416
Total	233	522	151	11	917	121	1453	99	4	1677	139	491	302	2	934	235	1461	202	14	1912	5440
17:00	34	153	49	2	238	31	412	34	3	480	32	135	88	0	255	64	322	44	6	436	1409
17:15	38	169	37	1	245	46	380	26	2	454	36	137	85	0	258	65	369	49	3	486	1443
17:30	30	132	42	0	204	23	347	32	1	403	31	122	86	0	239	69	478	49	4	600	1446
17:45	46	174	45	0	265	36	402	36	0	474	39	119	69	0	227	61	341	35	7	444	1410
Total	148	628	173	3	952	136	1541	128	6	1811	138	513	328	0	979	259	1510	177	20	1966	5708
Grand Total	745	2141	693	23	3602	533	5407	399	20	6359	570	1885	1292	4	3751	820	6422	752	53	8047	21759
Apprch %	20.7	59.4	19.2	0.6		8.4	85	6.3	0.3		15.2	50.3	34.4	0.1		10.2	79.8	9.3	0.7		
Total %	3.4	9.8	3.2	0.1	16.6	2.4	24.8	1.8	0.1	29.2	2.6	8.7	5.9	0	17.2	3.8	29.5	3.5	0.2	37	
Autos	715	2071					5244					1823	1270				6253				21130
% Autos	96	96.7	97.4	100	96.7	97.2	97	96	95	96.9	97.7	96.7	98.3	100	97.4	98.8	97.4	94.8	98.1	97.3	97.1
Heavy Vehicles																					
% Heavy Vehicles	4	3.3	2.6	0	3.3	2.8	3	4	5	3.1	2.3	3.3	1.7	0	2.6	1.2	2.6	5.2	1.9	2.7	2.9

Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 2

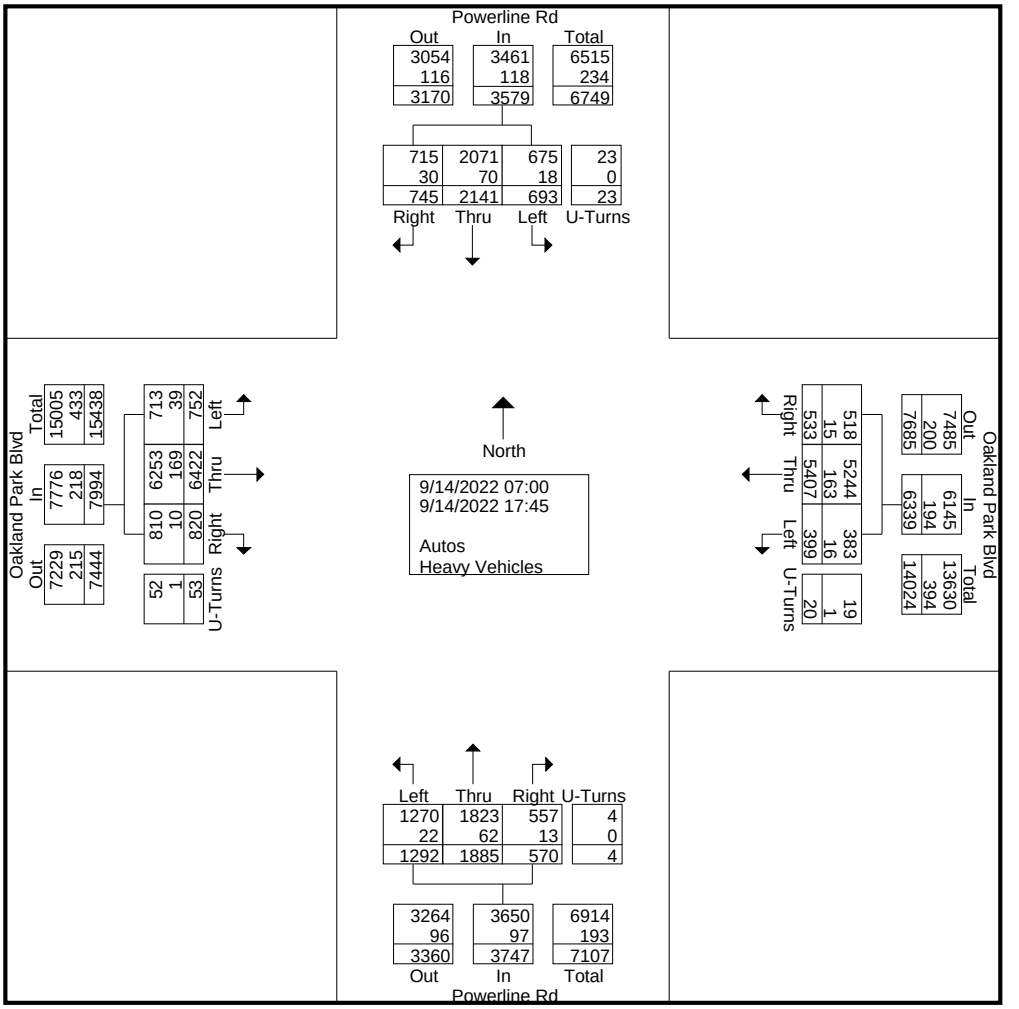


Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 3

	Powerline Rd From North					Oakland Park Blvd From East					Powerline Rd From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	49	130	33	3	215	37	366	28	0	431	29	134	80	2	245	69	406	49	1	525	1416
17:00	34	153	49	2	238	31	412	34	3	480	32	135	88	0	255	64	322	44	6	436	1409
17:15	38	169	37	1	245	46	380	26	2	454	36	137	85	0	258	65	369	49	3	486	1443
17:30	30	132	42	0	204	23	347	32	1	403	31	122	86	0	239	69	478	49	4	600	1446
Total Volume	151	584	161	6	902	137	1505	120	6	1768	128	528	339	2	997	267	1575	191	14	2047	5714
% App. Total	16.7	64.7	17.8	0.7		7.7	85.1	6.8	0.3		12.8	53	34	0.2		13	76.9	9.3	0.7		
PHF	.770	.864	.821	.500	.920	.745	.913	.882	.500	.921	.889	.964	.963	.250	.966	.967	.824	.974	.583	.853	.988
Autos	147	572	159	6	884	132	1468										1550				
% Autos	97.4	97.9	98.8	100	98.0	96.4	97.5	96.7	100	97.4	98.4	97.5	98.8	100	98.1	99.6	98.4	95.3	100	98.3	97.9
Heavy Vehicles																					
% Heavy Vehicles	2.6	2.1	1.2	0	2.0	3.6	2.5	3.3	0	2.6	1.6	2.5	1.2	0	1.9	0.4	1.6	4.7	0	1.7	2.1

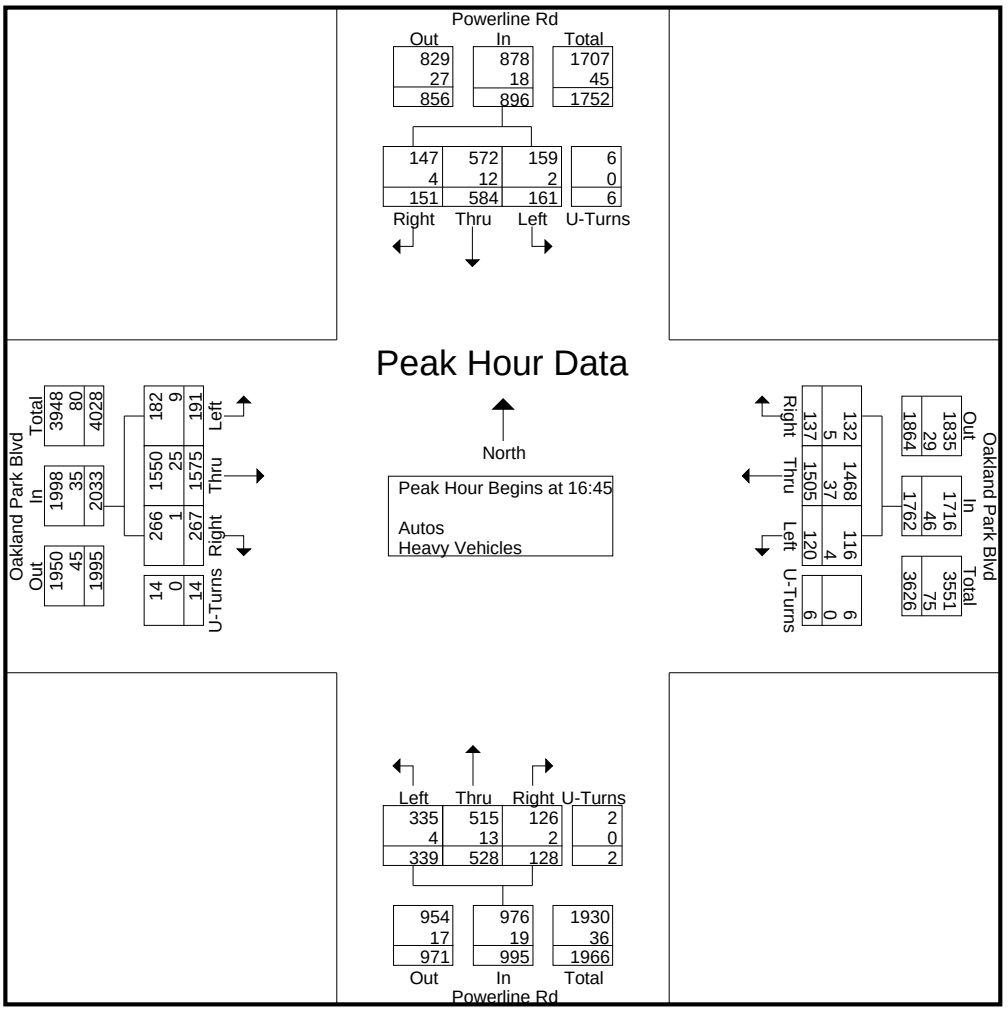


Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 4

	Powerline Rd From North					Oakland Park Blvd From East					Powerline Rd From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	41	129	52	0	222	17	340	21	2	380	60	128	93	0	281	35	459	43	2	539	1422
07:45	53	134	40	0	227	41	292	28	0	361	54	130	91	0	275	59	428	49	2	538	1401
08:00	47	160	57	1	265	32	284	21	1	338	37	119	102	0	258	40	380	49	1	470	1331
08:15	43	107	38	3	191	44	289	22	4	359	34	138	80	0	252	33	487	36	5	561	1363
Total Volume	184	530	187	4	905	134	1205	92	7	1438	185	515	366	0	1066	167	1754	177	10	2108	5517
% App. Total	20.3	58.6	20.7	0.4		9.3	83.8	6.4	0.5		17.4	48.3	34.3	0		7.9	83.2	8.4	0.5		
PHF	.868	.828	.820	.333	.854	.761	.886	.821	.438	.946	.771	.933	.897	.000	.948	.708	.900	.903	.500	.939	.970
Autos	176	503	178	4	861	132	1170										1700				
% Autos	95.7	94.9	95.2	100	95.1	98.5	97.1	93.5	100	97.0	96.2	97.1	98.9	0	97.6	98.2	96.9	94.4	90.0	96.8	96.7
Heavy Vehicles																					
% Heavy Vehicles	4.3	5.1	4.8	0	4.9	1.5	2.9	6.5	0	3.0	3.8	2.9	1.1	0	2.4	1.8	3.1	5.6	10.0	3.2	3.3

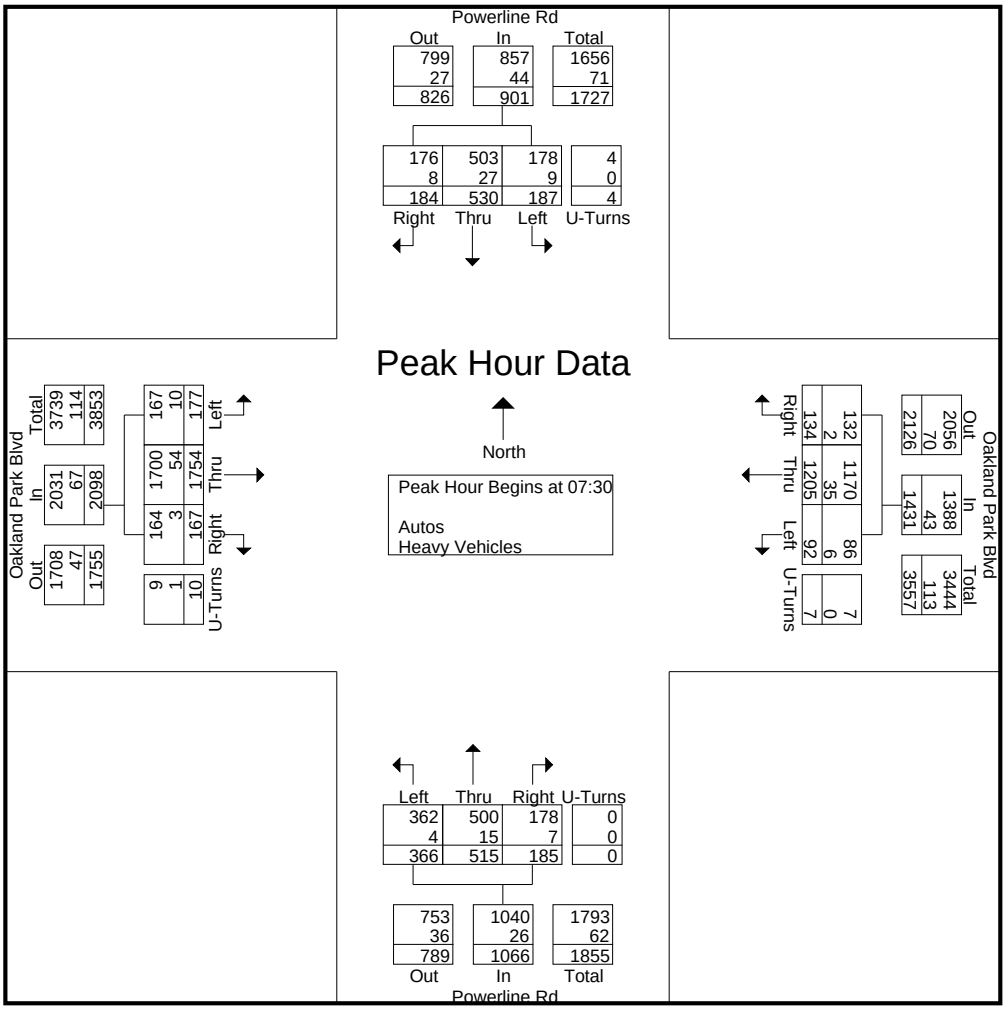


Exhibit F

Traf Tech Engineering Inc.

File Name : 1-Powerline Rd & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 5

	Powerline Rd From North					Oakland Park Blvd From East					Powerline Rd From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	49	130	33	3	215	37	366	28	0	431	29	134	80	2	245	69	406	49	1	525	1416
17:00	34	153	49	2	238	31	412	34	3	480	32	135	88	0	255	64	322	44	6	436	1409
17:15	38	169	37	1	245	46	380	26	2	454	36	137	85	0	258	65	369	49	3	486	1443
17:30	30	132	42	0	204	23	347	32	1	403	31	122	86	0	239	69	478	49	4	600	1446
Total Volume	151	584	161	6	902	137	1505	120	6	1768	128	528	339	2	997	267	1575	191	14	2047	5714
% App. Total	16.7	64.7	17.8	0.7		7.7	85.1	6.8	0.3		12.8	53	34	0.2		13	76.9	9.3	0.7		
PHF	.770	.864	.821	.500	.920	.745	.913	.882	.500	.921	.889	.964	.963	.250	.966	.967	.824	.974	.583	.853	.988
Autos	147	572	159	6	884	132	1468										1550				
% Autos	97.4	97.9	98.8	100	98.0	96.4	97.5	96.7	100	97.4	98.4	97.5	98.8	100	98.1	99.6	98.4	95.3	100	98.3	97.9
Heavy Vehicles																					
% Heavy Vehicles	2.6	2.1	1.2	0	2.0	3.6	2.5	3.3	0	2.6	1.6	2.5	1.2	0	1.9	0.4	1.6	4.7	0	1.7	2.1

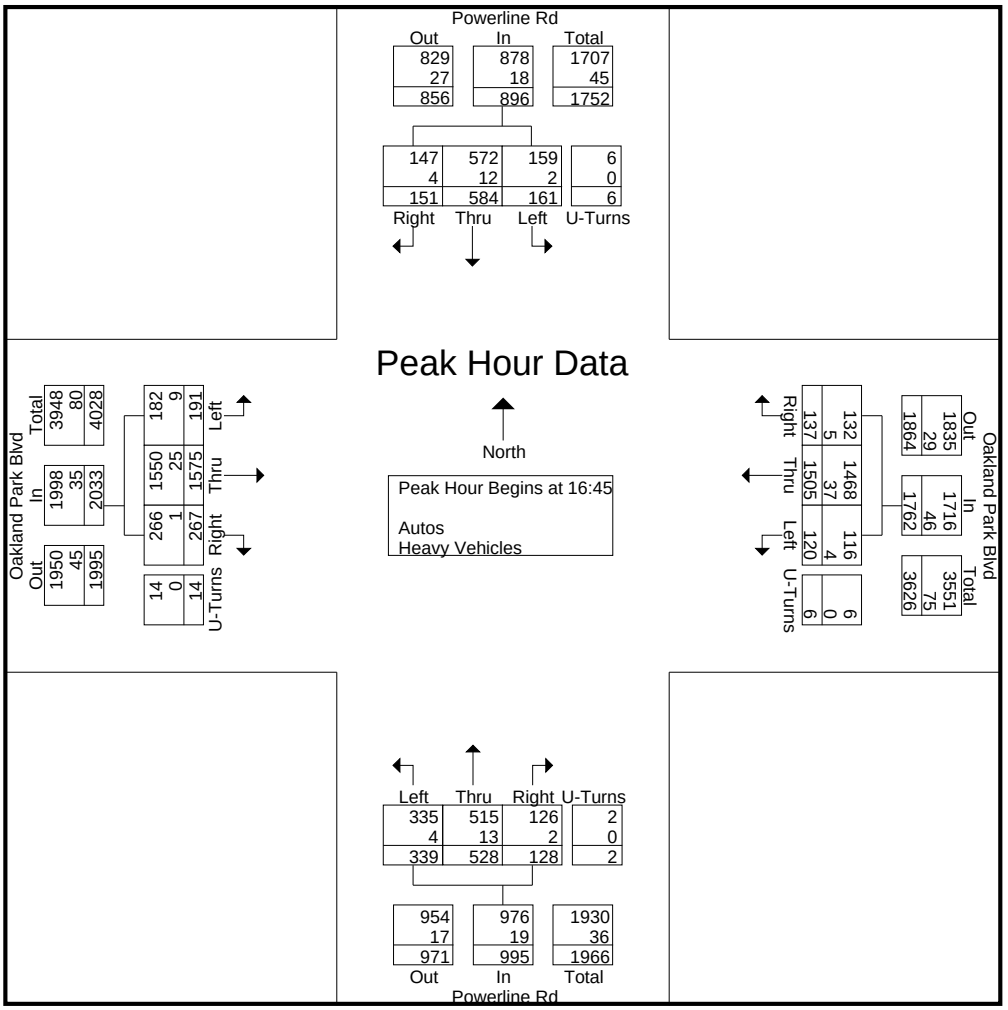


Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Peds & Bikes

	Powerline Rd From North				NW 29th Street From East				Powerline Rd From South				NW 29th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
07:30	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
07:45	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	1	8
08:00	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
08:15	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3
08:30	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
08:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	0	3	0	0	8	0	0	0	0	0	0	0	0	12
*** BREAK ***																	
16:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
*** BREAK ***																	
16:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
17:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
17:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3
Total	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	2	6
Grand Total	1	0	0	0	12	0	0	13	0	0	0	0	1	0	0	3	30
Apprch %	100	0	0	0	48	0	0	52	0	0	0	0	25	0	0	75	
Total %	3.3	0	0	0	40	0	0	43.3	0	0	0	0	3.3	0	0	10	

Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Powerline Rd From North					NW 29th Street From East					Powerline Rd From South					NW 29th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	121	9	0	131	15	0	7	0	22	5	176	1	0	182	3	2	7	0	12	347
07:15	2	171	16	1	190	21	0	14	0	35	7	185	0	0	192	2	3	9	0	14	431
07:30	3	174	19	1	197	37	1	8	0	46	21	244	0	0	265	2	0	6	0	8	516
07:45	2	183	43	1	229	38	4	25	0	67	32	239	2	0	273	2	3	6	0	11	580
Total	8	649	87	3	747	111	5	54	0	170	65	844	3	0	912	9	8	28	0	45	1874
08:00	7	200	36	1	244	54	0	29	0	83	24	201	2	0	227	1	1	6	0	8	562
08:15	1	148	12	0	161	21	3	14	0	38	11	213	1	0	225	5	2	3	0	10	434
08:30	4	178	16	0	198	21	2	16	0	39	16	150	1	0	167	0	2	2	0	4	408
08:45	5	166	23	1	195	13	0	7	0	20	14	196	2	1	213	2	1	12	0	15	443
Total	17	692	87	2	798	109	5	66	0	180	65	760	6	1	832	8	6	23	0	37	1847
*** BREAK ***																					
16:00	4	179	14	1	198	31	4	20	0	55	11	202	2	0	215	6	3	4	0	13	481
16:15	5	212	17	1	235	30	1	32	0	63	11	204	1	1	217	1	1	6	0	8	523
16:30	3	184	16	0	203	25	6	13	0	44	16	230	3	2	251	5	2	6	0	13	511
16:45	7	203	15	1	226	29	2	37	0	68	9	202	1	0	212	2	4	2	0	8	514
Total	19	778	62	3	862	115	13	102	0	230	47	838	7	3	895	14	10	18	0	42	2029
17:00	6	211	16	0	233	45	6	29	0	80	9	214	1	0	224	1	1	5	0	7	544
17:15	7	240	26	1	274	37	4	38	0	79	14	241	1	1	257	3	3	4	0	10	620
17:30	8	196	20	1	225	34	5	31	0	70	17	188	0	0	205	3	2	3	0	8	508
17:45	8	230	24	1	263	22	5	21	0	48	6	198	2	0	206	3	0	6	0	9	526
Total	29	877	86	3	995	138	20	119	0	277	46	841	4	1	892	10	6	18	0	34	2198
Grand Total	73	2996	322	11	3402	473	43	341	0	857	223	3283	20	5	3531	41	30	87	0	158	7948
Apprch %	2.1	88.1	9.5	0.3		55.2	5	39.8	0		6.3	93	0.6	0.1		25.9	19	55.1	0		
Total %	0.9	37.7	4.1	0.1	42.8	6	0.5	4.3	0	10.8	2.8	41.3	0.3	0.1	44.4	0.5	0.4	1.1	0	2	
Autos	67	2905										3191									
% Autos	91.8	97	98.4	90.9	97	99.4	100	97.7	0	98.7	98.7	97.2	100	100	97.3	95.1	100	98.9	0	98.1	97.3
Heavy Vehicles																					
% Heavy Vehicles	8.2	3	1.6	9.1	3	0.6	0	2.3	0	1.3	1.3	2.8	0	0	2.7	4.9	0	1.1	0	1.9	2.7

Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 2

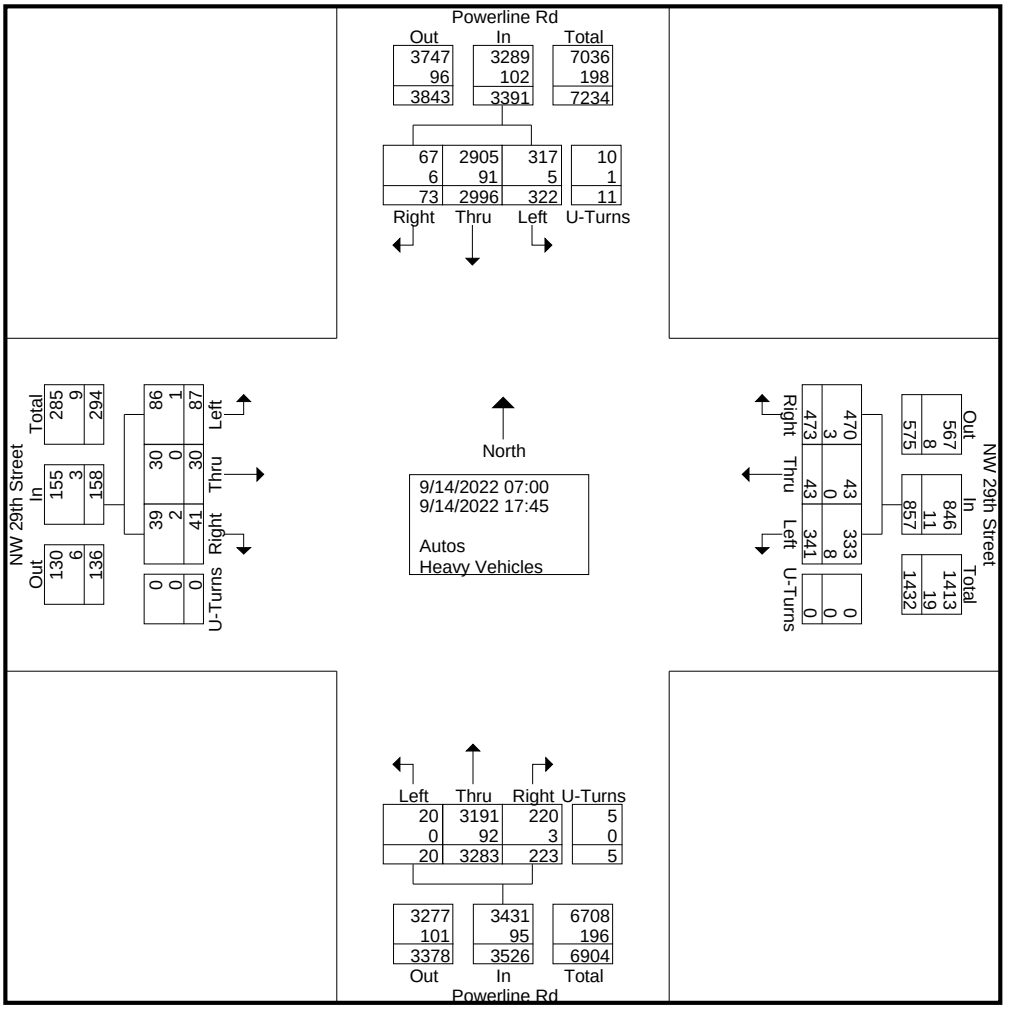


Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 3

	Powerline Rd From North					NW 29th Street From East					Powerline Rd From South					NW 29th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	6	211	16	0	233	45	6	29	0	80	9	214	1	0	224	1	1	5	0	7	544
17:15	7	240	26	1	274	37	4	38	0	79	14	241	1	1	257	3	3	4	0	10	620
17:30	8	196	20	1	225	34	5	31	0	70	17	188	0	0	205	3	2	3	0	8	508
17:45	8	230	24	1	263	22	5	21	0	48	6	198	2	0	206	3	0	6	0	9	526
Total Volume	29	877	86	3	995	138	20	119	0	277	46	841	4	1	892	10	6	18	0	34	2198
% App. Total	2.9	88.1	8.6	0.3		49.8	7.2	43	0		5.2	94.3	0.4	0.1		29.4	17.6	52.9	0		
PHF	.906	.914	.827	.750	.908	.767	.833	.783	.000	.866	.676	.872	.500	.250	.868	.833	.500	.750	.000	.850	.886
Autos	28	856	83	3	970	138	20	117	0	275	45	821	4	1	871	10	6	18	0	34	2150
% Autos	96.6	97.6	96.5	100	97.5	100	100	98.3	0	99.3	97.8	97.6	100	100	97.6	100	100	100	0	100	97.8
Heavy Vehicles																					
% Heavy Vehicles	3.4	2.4	3.5	0	2.5	0	0	1.7	0	0.7	2.2	2.4	0	0	2.4	0	0	0	0	0	2.2

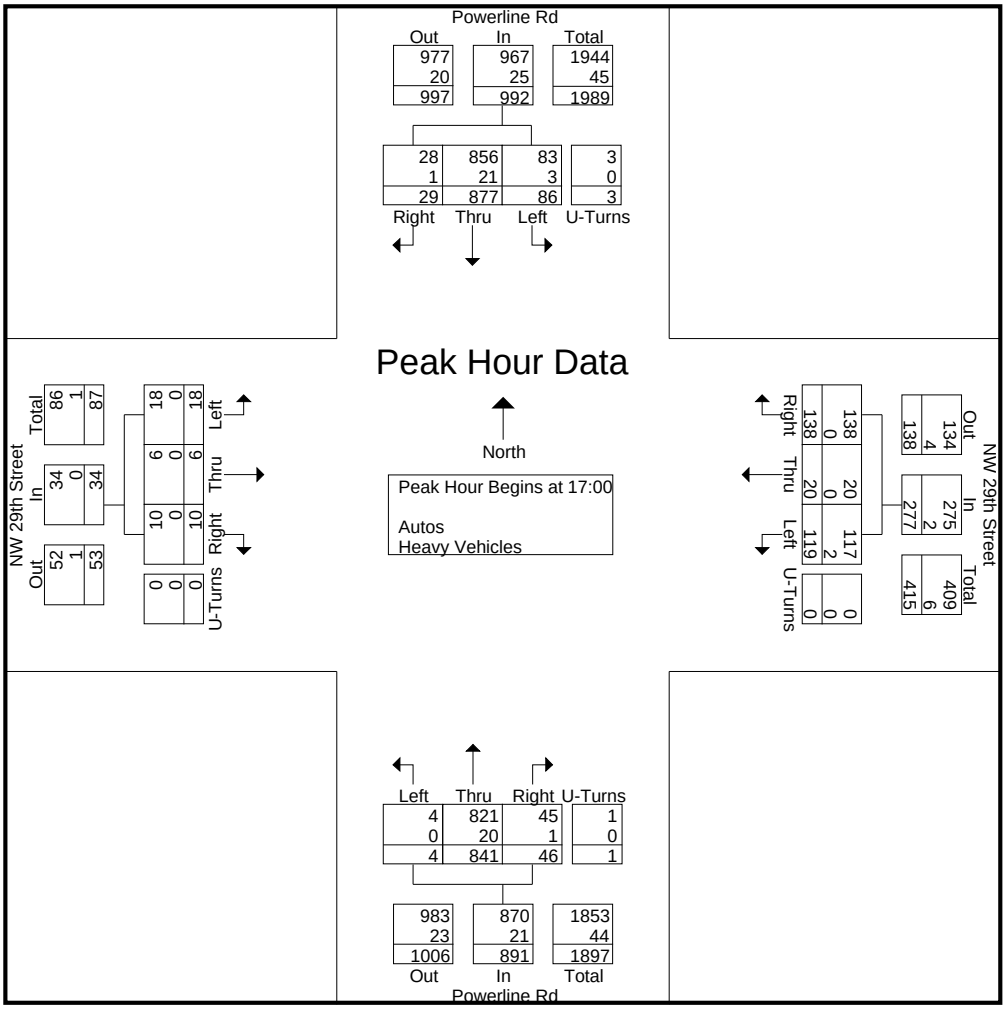


Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 4

	Powerline Rd From North					NW 29th Street From East					Powerline Rd From South					NW 29th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	3	174	19	1	197	37	1	8	0	46	21	244	0	0	265	2	0	6	0	8	516
07:45	2	183	43	1	229	38	4	25	0	67	32	239	2	0	273	2	3	6	0	11	580
08:00	7	200	36	1	244	54	0	29	0	83	24	201	2	0	227	1	1	6	0	8	562
08:15	1	148	12	0	161	21	3	14	0	38	11	213	1	0	225	5	2	3	0	10	434
Total Volume	13	705	110	3	831	150	8	76	0	234	88	897	5	0	990	10	6	21	0	37	2092
% App. Total	1.6	84.8	13.2	0.4		64.1	3.4	32.5	0		8.9	90.6	0.5	0		27	16.2	56.8	0		
PHF	.464	.881	.640	.750	.851	.694	.500	.655	.000	.705	.688	.919	.625	.000	.907	.500	.500	.875	.000	.841	.902
Autos	12	673	109	3	797	150	8	74	0	232	86	869	5	0	960	10	6	21	0	37	2026
% Autos	92.3	95.5	99.1	100	95.9	100	100	97.4	0	99.1	97.7	96.9	100	0	97.0	100	100	100	0	100	96.8
Heavy Vehicles																					
% Heavy Vehicles	7.7	4.5	0.9	0	4.1	0	0	2.6	0	0.9	2.3	3.1	0	0	3.0	0	0	0	0	0	3.2

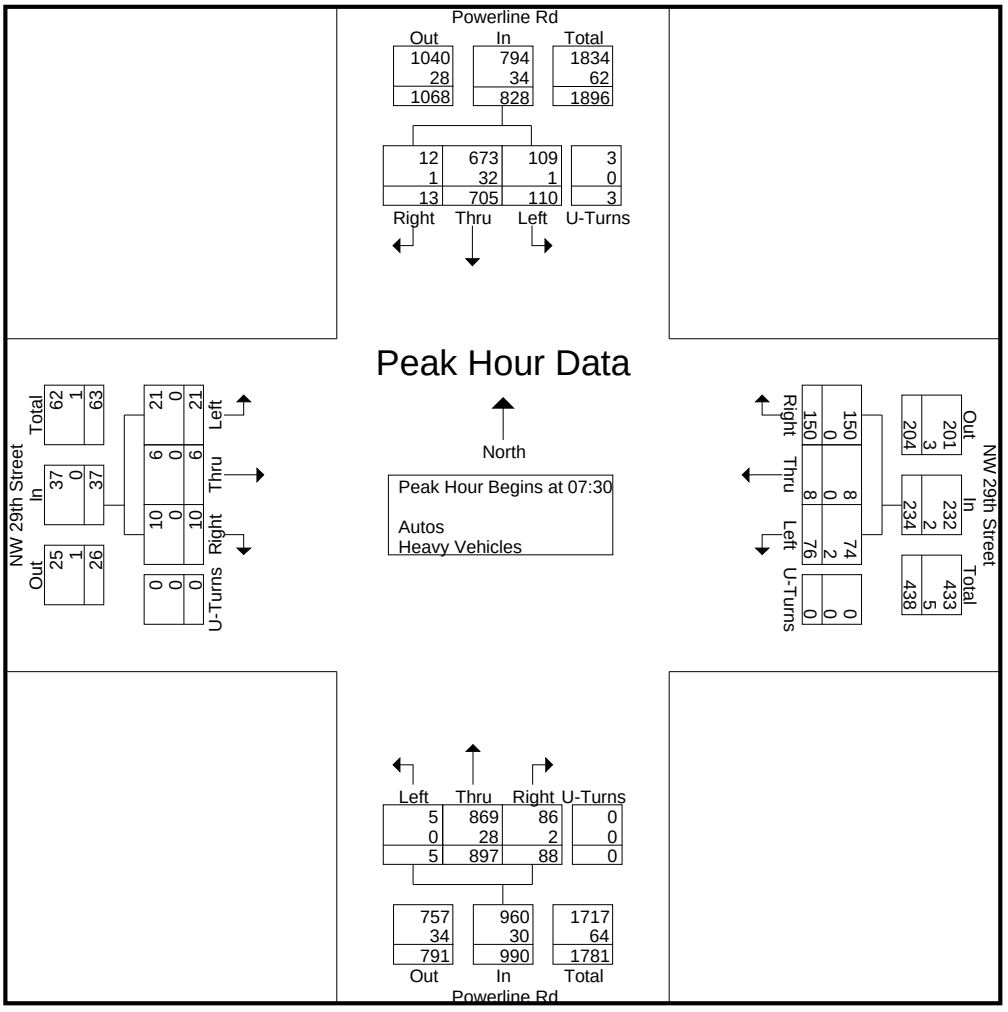


Exhibit F

Traf Tech Engineering Inc.

File Name : 2-Powerline Rd & NW 29th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 5

	Powerline Rd From North					NW 29th Street From East					Powerline Rd From South					NW 29th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	6	211	16	0	233	45	6	29	0	80	9	214	1	0	224	1	1	5	0	7	544
17:15	7	240	26	1	274	37	4	38	0	79	14	241	1	1	257	3	3	4	0	10	620
17:30	8	196	20	1	225	34	5	31	0	70	17	188	0	0	205	3	2	3	0	8	508
17:45	8	230	24	1	263	22	5	21	0	48	6	198	2	0	206	3	0	6	0	9	526
Total Volume	29	877	86	3	995	138	20	119	0	277	46	841	4	1	892	10	6	18	0	34	2198
% App. Total	2.9	88.1	8.6	0.3		49.8	7.2	43	0		5.2	94.3	0.4	0.1		29.4	17.6	52.9	0		
PHF	.906	.914	.827	.750	.908	.767	.833	.783	.000	.866	.676	.872	.500	.250	.868	.833	.500	.750	.000	.850	.886
Autos	28	856	83	3	970	138	20	117	0	275	45	821	4	1	871	10	6	18	0	34	2150
% Autos	96.6	97.6	96.5	100	97.5	100	100	98.3	0	99.3	97.8	97.6	100	100	97.6	100	100	100	0	100	97.8
Heavy Vehicles																					
% Heavy Vehicles	3.4	2.4	3.5	0	2.5	0	0	1.7	0	0.7	2.2	2.4	0	0	2.4	0	0	0	0	0	2.2

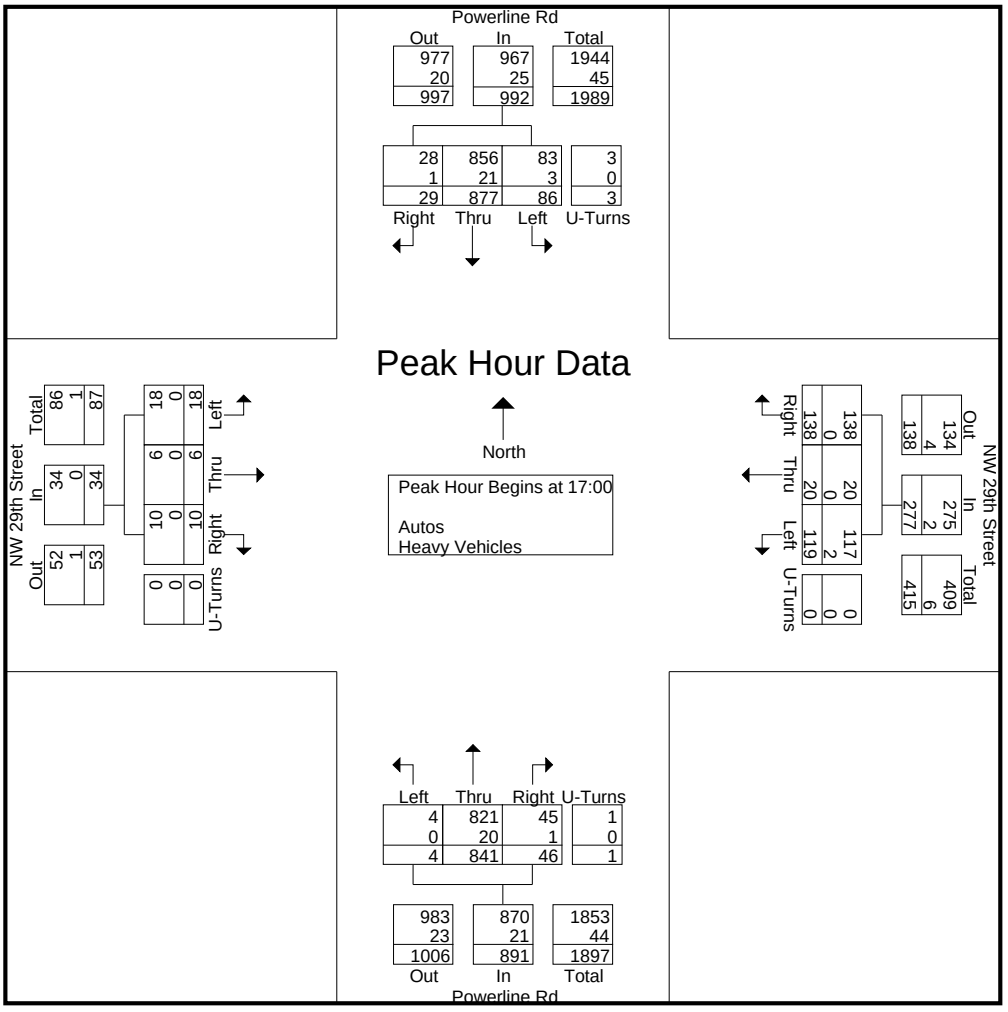


Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Peds & Bikes

	Andrews Ave From North				NE 26th Street From East				Andrews Ave From South				NE 26th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:15	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	6
07:30	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
07:45	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3
Total	0	0	0	1	6	0	0	4	0	0	0	1	0	0	0	0	12
08:00	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
08:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
08:30	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3
08:45	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	8
*** BREAK ***																	
16:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
*** BREAK ***																	
16:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3
17:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***																	
17:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
17:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	4
Grand Total	0	0	0	5	11	0	0	10	0	0	0	1	0	0	0	0	27
Apprch %	0	0	0	100	52.4	0	0	47.6	0	0	0	100	0	0	0	0	
Total %	0	0	0	18.5	40.7	0	0	37	0	0	0	3.7	0	0	0	0	

Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Andrews Ave From North					NE 26th Street From East					Andrews Ave From South					NE 26th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	2	178	19	0	199	14	1	7	0	22	12	120	0	0	132	0	0	0	0	0	353
07:15	0	287	21	0	308	22	1	24	0	47	20	159	0	0	179	1	0	0	0	1	535
07:30	0	215	21	0	236	21	0	26	0	47	20	264	0	0	284	0	0	0	0	0	567
07:45	1	232	32	0	265	34	0	28	0	62	35	232	0	0	267	0	0	0	0	0	594
Total	3	912	93	0	1008	91	2	85	0	178	87	775	0	0	862	1	0	0	0	1	2049
08:00	2	223	53	0	278	38	0	36	0	74	35	208	0	0	243	0	0	0	0	0	595
08:15	0	263	46	0	309	45	0	39	0	84	30	175	0	0	205	0	0	0	0	0	598
08:30	0	210	34	0	244	43	1	32	0	76	21	191	0	0	212	1	0	0	0	1	533
08:45	3	221	26	0	250	37	2	27	0	66	29	160	0	0	189	0	0	0	0	0	505
Total	5	917	159	0	1081	163	3	134	0	300	115	734	0	0	849	1	0	0	0	1	2231
*** BREAK ***																					
16:00	2	176	35	0	213	44	0	35	0	79	28	201	0	0	229	1	0	0	0	1	522
16:15	3	194	37	0	234	53	3	39	0	95	39	220	1	0	260	2	0	0	0	2	591
16:30	3	231	29	0	263	48	0	50	0	98	31	203	1	0	235	2	0	0	0	2	598
16:45	0	211	37	0	248	47	0	59	0	106	43	225	0	0	268	0	0	0	0	0	622
Total	8	812	138	0	958	192	3	183	0	378	141	849	2	0	992	5	0	0	0	5	2333
17:00	2	205	35	0	242	62	0	56	0	118	35	247	0	0	282	0	0	0	0	0	642
17:15	1	224	37	0	262	64	0	58	0	122	35	255	1	0	291	0	0	0	0	0	675
17:30	4	258	38	0	300	48	1	42	0	91	45	240	2	0	287	4	1	0	0	5	683
17:45	5	274	31	0	310	49	0	64	0	113	28	220	1	0	249	1	0	0	0	1	673
Total	12	961	141	0	1114	223	1	220	0	444	143	962	4	0	1109	5	1	0	0	6	2673
Grand Total	28	3602	531	0	4161	669	9	622	0	1300	486	3320	6	0	3812	12	1	0	0	13	9286
Apprch %	0.7	86.6	12.8	0		51.5	0.7	47.8	0		12.7	87.1	0.2	0		92.3	7.7	0	0		
Total %	0.3	38.8	5.7	0	44.8	7.2	0.1	6.7	0	14	5.2	35.8	0.1	0	41.1	0.1	0	0	0	0.1	
Autos	28	3526										3259									
% Autos	100	97.9	98.7	0	98	98.1	100	98.9	0	98.5	98.4	98.2	100	0	98.2	100	100	0	0	100	98.1
Heavy Vehicles																					
% Heavy Vehicles	0	2.1	1.3	0	2	1.9	0	1.1	0	1.5	1.6	1.8	0	0	1.8	0	0	0	0	0	1.9

Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 2

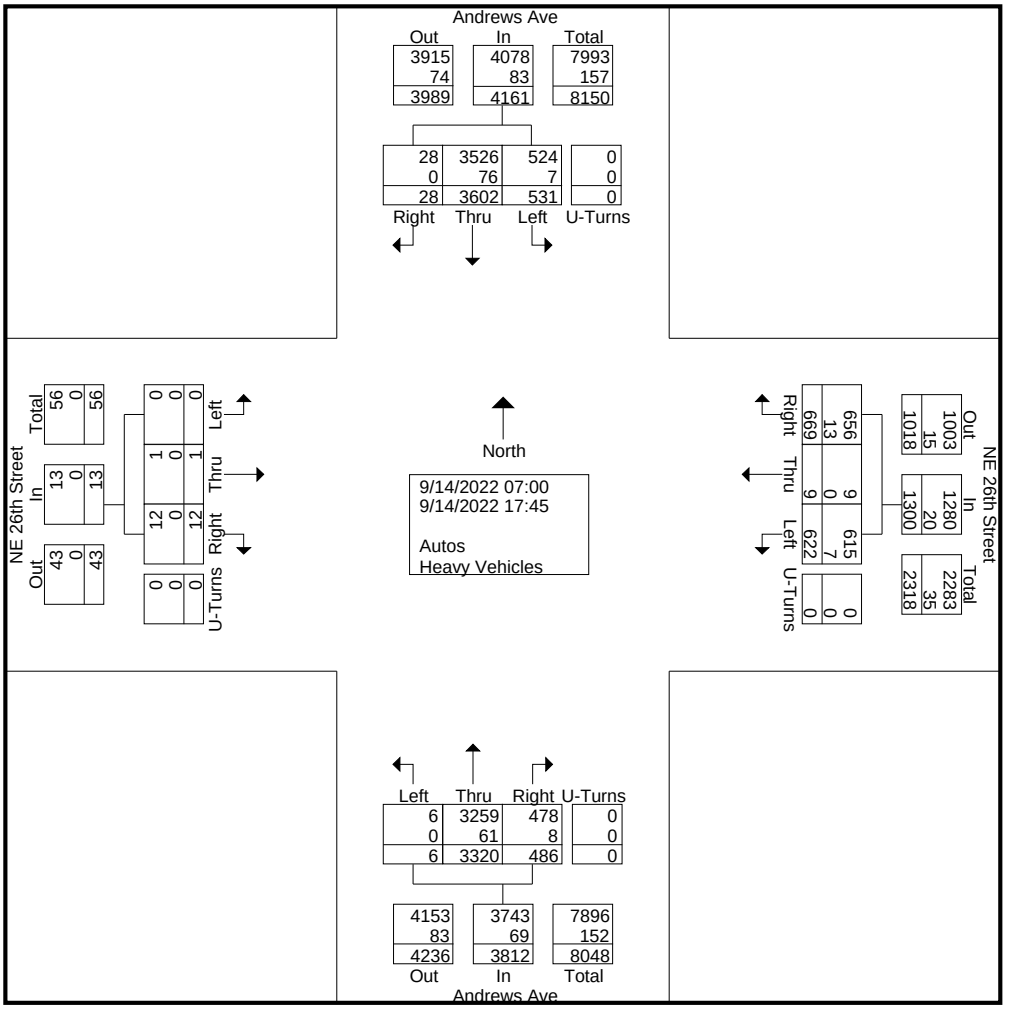


Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 3

	Andrews Ave From North					NE 26th Street From East					Andrews Ave From South					NE 26th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	2	205	35	0	242	62	0	56	0	118	35	247	0	0	282	0	0	0	0	0	642
17:15	1	224	37	0	262	64	0	58	0	122	35	255	1	0	291	0	0	0	0	0	675
17:30	4	258	38	0	300	48	1	42	0	91	45	240	2	0	287	4	1	0	0	5	683
17:45	5	274	31	0	310	49	0	64	0	113	28	220	1	0	249	1	0	0	0	1	673
Total Volume	12	961	141	0	1114	223	1	220	0	444	143	962	4	0	1109	5	1	0	0	6	2673
% App. Total	1.1	86.3	12.7	0		50.2	0.2	49.5	0		12.9	86.7	0.4	0		83.3	16.7	0	0		
PHF	.600	.877	.928	.000	.898	.871	.250	.859	.000	.910	.794	.943	.500	.000	.953	.313	.250	.000	.000	.300	.978
Autos	12	950	138	0	1100	220	1	219	0	440	143	951	4	0	1098	5	1	0	0	6	2644
% Autos	100	98.9	97.9	0	98.7	98.7	100	99.5	0	99.1	100	98.9	100	0	99.0	100	100	0	0	100	98.9
Heavy Vehicles																					
% Heavy Vehicles	0	1.1	2.1	0	1.3	1.3	0	0.5	0	0.9	0	1.1	0	0	1.0	0	0	0	0	0	1.1

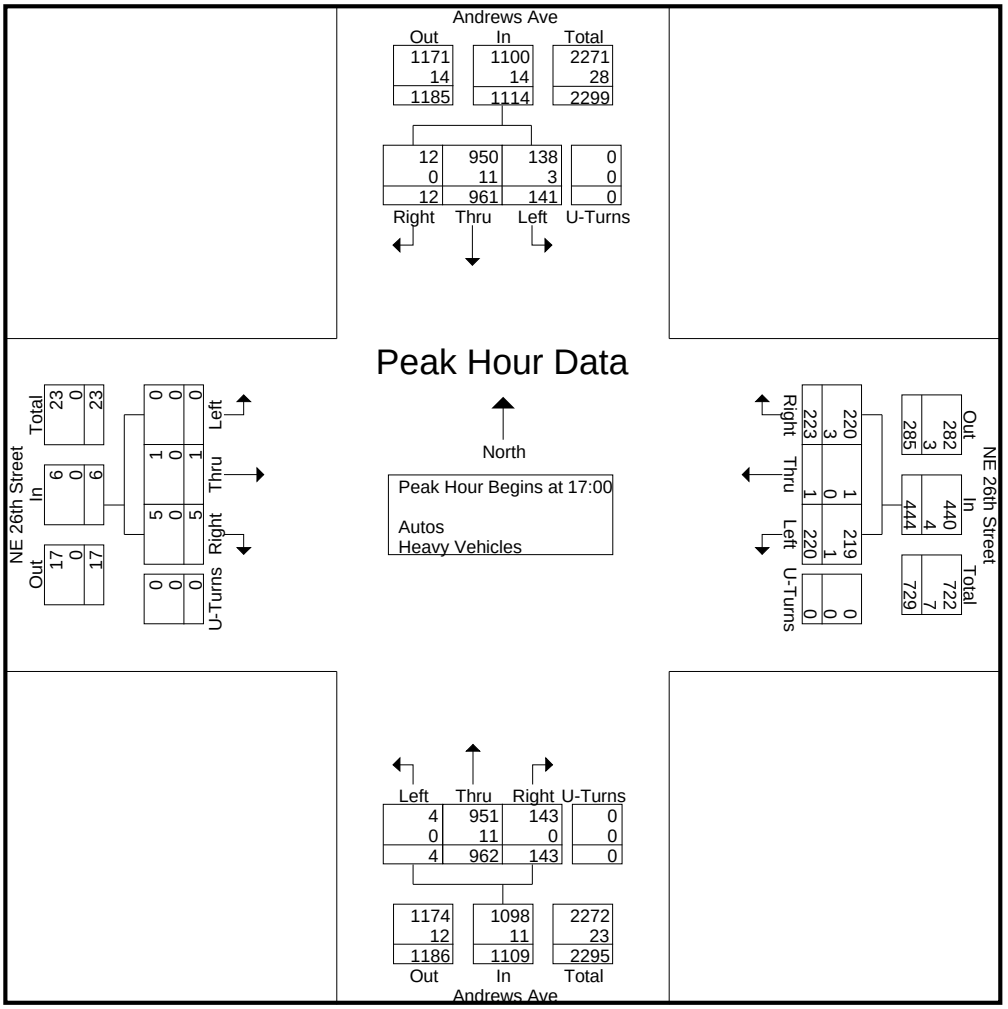


Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 4

	Andrews Ave From North					NE 26th Street From East					Andrews Ave From South					NE 26th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	0	215	21	0	236	21	0	26	0	47	20	264	0	0	284	0	0	0	0	0	567
07:45	1	232	32	0	265	34	0	28	0	62	35	232	0	0	267	0	0	0	0	0	594
08:00	2	223	53	0	278	38	0	36	0	74	35	208	0	0	243	0	0	0	0	0	595
08:15	0	263	46	0	309	45	0	39	0	84	30	175	0	0	205	0	0	0	0	0	598
Total Volume	3	933	152	0	1088	138	0	129	0	267	120	879	0	0	999	0	0	0	0	0	2354
% App. Total	0.3	85.8	14	0		51.7	0	48.3	0		12	88	0	0		0	0	0	0		
PHF	.375	.887	.717	.000	.880	.767	.000	.827	.000	.795	.857	.832	.000	.000	.879	.000	.000	.000	.000	.000	.984
Autos	3	907	150	0	1060	132	0	127	0	259	116	865	0	0	981	0	0	0	0	0	2300
% Autos	100	97.2	98.7	0	97.4	95.7	0	98.4	0	97.0	96.7	98.4	0	0	98.2	0	0	0	0	0	97.7
Heavy Vehicles																					
% Heavy Vehicles	0	2.8	1.3	0	2.6	4.3	0	1.6	0	3.0	3.3	1.6	0	0	1.8	0	0	0	0	0	2.3

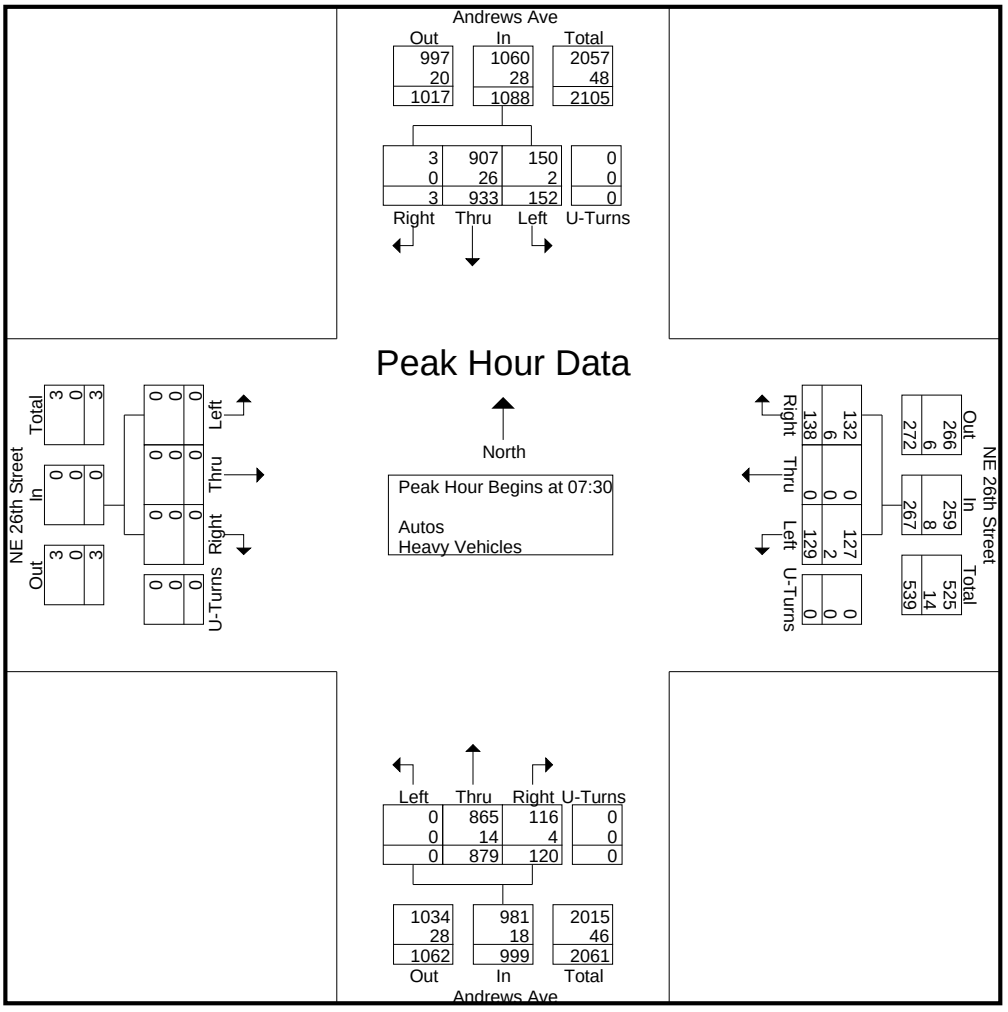


Exhibit F

Traf Tech Engineering Inc.

File Name : 3-Andrews Ave & NE 26th St
Site Code : 00000000
Start Date : 9/14/2022
Page No : 5

	Andrews Ave From North					NE 26th Street From East					Andrews Ave From South					NE 26th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	2	205	35	0	242	62	0	56	0	118	35	247	0	0	282	0	0	0	0	0	642
17:15	1	224	37	0	262	64	0	58	0	122	35	255	1	0	291	0	0	0	0	0	675
17:30	4	258	38	0	300	48	1	42	0	91	45	240	2	0	287	4	1	0	0	5	683
17:45	5	274	31	0	310	49	0	64	0	113	28	220	1	0	249	1	0	0	0	1	673
Total Volume	12	961	141	0	1114	223	1	220	0	444	143	962	4	0	1109	5	1	0	0	6	2673
% App. Total	1.1	86.3	12.7	0		50.2	0.2	49.5	0		12.9	86.7	0.4	0		83.3	16.7	0	0		
PHF	.600	.877	.928	.000	.898	.871	.250	.859	.000	.910	.794	.943	.500	.000	.953	.313	.250	.000	.000	.300	.978
Autos	12	950	138	0	1100	220	1	219	0	440	143	951	4	0	1098	5	1	0	0	6	2644
% Autos	100	98.9	97.9	0	98.7	98.7	100	99.5	0	99.1	100	98.9	100	0	99.0	100	100	0	0	100	98.9
Heavy Vehicles																					
% Heavy Vehicles	0	1.1	2.1	0	1.3	1.3	0	0.5	0	0.9	0	1.1	0	0	1.0	0	0	0	0	0	1.1

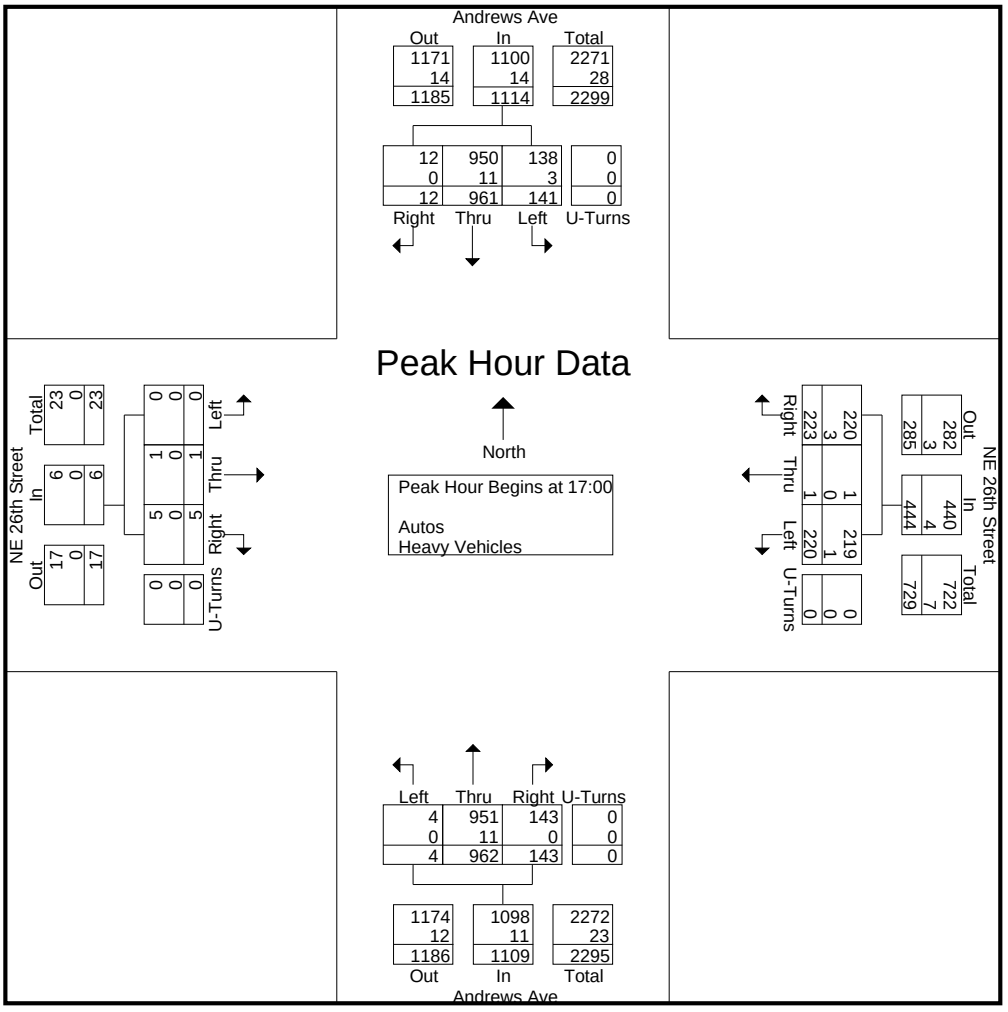


Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Peds & Bikes

	NE 6th Ave From North				Oakland Park Blvd From East				NE 6th Ave From South				Oakland Park Blvd From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
07:15	0	0	0	5	1	0	0	4	1	0	0	0	0	0	0	0	11
07:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
07:45	0	0	0	4	1	0	0	0	1	0	0	1	0	0	0	0	7
Total	0	0	0	9	2	0	0	7	3	0	0	1	0	0	0	0	22
08:00	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
08:15	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2
08:30	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	4
08:45	0	0	0	0	2	0	0	0	3	0	0	1	0	0	0	0	6
Total	2	0	0	1	3	0	0	3	3	0	0	3	0	0	0	0	15
*** BREAK ***																	
16:00	0	0	0	2	0	0	0	3	1	0	0	0	1	0	0	0	7
16:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
16:45	1	0	0	0	1	0	0	1	1	0	0	2	0	0	0	0	6
Total	1	0	0	2	1	0	0	4	2	0	0	4	1	0	0	0	15
17:00	0	0	0	0	2	0	0	1	0	0	0	1	1	0	0	0	5
17:15	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0	0	5
17:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
*** BREAK ***																	
Total	0	0	0	1	3	0	0	4	1	0	0	1	1	0	0	1	12
Grand Total	3	0	0	13	9	0	0	18	9	0	0	9	2	0	0	1	64
Apprch %	18.8	0	0	81.2	33.3	0	0	66.7	50	0	0	50	66.7	0	0	33.3	
Total %	4.7	0	0	20.3	14.1	0	0	28.1	14.1	0	0	14.1	3.1	0	0	1.6	

Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	NE 6th Ave From North					Oakland Park Blvd From East					NE 6th Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	8	13	11	0	32	6	197	12	4	219	4	16	22	0	42	11	267	8	1	287	580
07:15	5	26	9	0	40	3	228	4	0	235	8	25	25	0	58	19	319	11	0	349	682
07:30	6	22	20	0	48	10	265	9	2	286	13	27	50	0	90	29	364	14	2	409	833
07:45	12	43	23	0	78	19	236	10	4	269	17	40	30	0	87	23	371	13	1	408	842
Total	31	104	63	0	198	38	926	35	10	1009	42	108	127	0	277	82	1321	46	4	1453	2937
08:00	6	56	17	0	79	14	260	17	0	291	13	25	35	0	73	19	355	12	0	386	829
08:15	10	43	18	0	71	15	196	16	2	229	10	37	31	0	78	29	330	9	2	370	748
08:30	21	47	19	0	87	4	264	10	3	281	14	25	34	0	73	32	403	9	2	446	887
08:45	5	41	20	0	66	17	227	13	3	260	13	30	31	0	74	37	381	6	0	424	824
Total	42	187	74	0	303	50	947	56	8	1061	50	117	131	0	298	117	1469	36	4	1626	3288
*** BREAK ***																					
16:00	12	36	14	0	62	12	383	15	5	415	17	55	39	0	111	25	266	10	1	302	890
16:15	7	33	32	0	72	11	340	20	12	383	7	50	34	0	91	26	283	19	3	331	877
16:30	13	56	28	0	97	23	336	19	5	383	4	29	31	0	64	35	293	11	3	342	886
16:45	10	47	21	0	78	21	294	18	2	335	15	40	31	0	86	46	301	20	2	369	868
Total	42	172	95	0	309	67	1353	72	24	1516	43	174	135	0	352	132	1143	60	9	1344	3521
17:00	16	66	29	0	111	17	415	23	10	465	12	50	29	0	91	41	298	13	2	354	1021
17:15	9	51	13	0	73	13	293	16	8	330	7	67	32	0	106	37	339	15	0	391	900
17:30	17	62	28	0	107	16	316	20	5	357	11	40	31	0	82	31	273	10	1	315	861
17:45	10	46	24	0	80	11	320	18	6	355	11	34	31	0	76	43	327	16	2	388	899
Total	52	225	94	0	371	57	1344	77	29	1507	41	191	123	0	355	152	1237	54	5	1448	3681
Grand Total	167	688	326	0	1181	212	4570	240	71	5093	176	590	516	0	1282	483	5170	196	22	5871	13427
Apprch %	14.1	58.3	27.6	0		4.2	89.7	4.7	1.4		13.7	46	40.2	0		8.2	88.1	3.3	0.4		
Total %	1.2	5.1	2.4	0	8.8	1.6	34	1.8	0.5	37.9	1.3	4.4	3.8	0	9.5	3.6	38.5	1.5	0.2	43.7	
Autos	156	685	320	0	1161	206	4454										5040				13108
% Autos	93.4	99.6	98.2	0	98.3	97.2	97.5	98.3	100	97.5	99.4	98.8	96.5	0	98	98.3	97.5	95.4	100	97.5	97.6
Heavy Vehicles																					
% Heavy Vehicles	6.6	0.4	1.8	0	1.7	2.8	2.5	1.7	0	2.5	0.6	1.2	3.5	0	2	1.7	2.5	4.6	0	2.5	2.4

Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 2

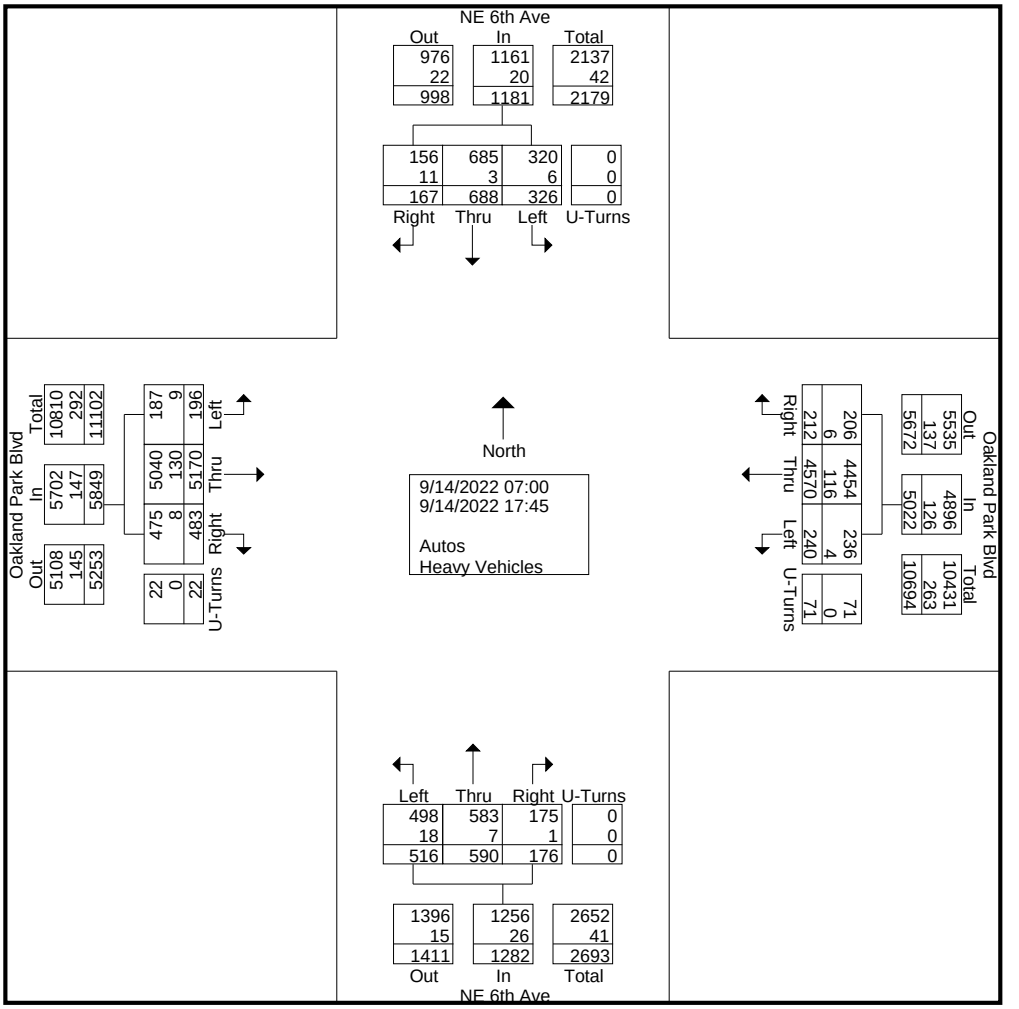


Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 3

	NE 6th Ave From North					Oakland Park Blvd From East					NE 6th Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	16	66	29	0	111	17	415	23	10	465	12	50	29	0	91	41	298	13	2	354	1021
17:15	9	51	13	0	73	13	293	16	8	330	7	67	32	0	106	37	339	15	0	391	900
17:30	17	62	28	0	107	16	316	20	5	357	11	40	31	0	82	31	273	10	1	315	861
17:45	10	46	24	0	80	11	320	18	6	355	11	34	31	0	76	43	327	16	2	388	899
Total Volume	52	225	94	0	371	57	1344	77	29	1507	41	191	123	0	355	152	1237	54	5	1448	3681
% App. Total	14	60.6	25.3	0		3.8	89.2	5.1	1.9		11.5	53.8	34.6	0		10.5	85.4	3.7	0.3		
PHF	.765	.852	.810	.000	.836	.838	.810	.837	.725	.810	.854	.713	.961	.000	.837	.884	.912	.844	.625	.926	.901
Autos	50	225	93	0	368	56	1314										1222				
% Autos	96.2	100	98.9	0	99.2	98.2	97.8	98.7	100	97.9	100	99.5	98.4	0	99.2	99.3	98.8	100	100	98.9	98.5
Heavy Vehicles																					
% Heavy Vehicles	3.8	0	1.1	0	0.8	1.8	2.2	1.3	0	2.1	0	0.5	1.6	0	0.8	0.7	1.2	0	0	1.1	1.5

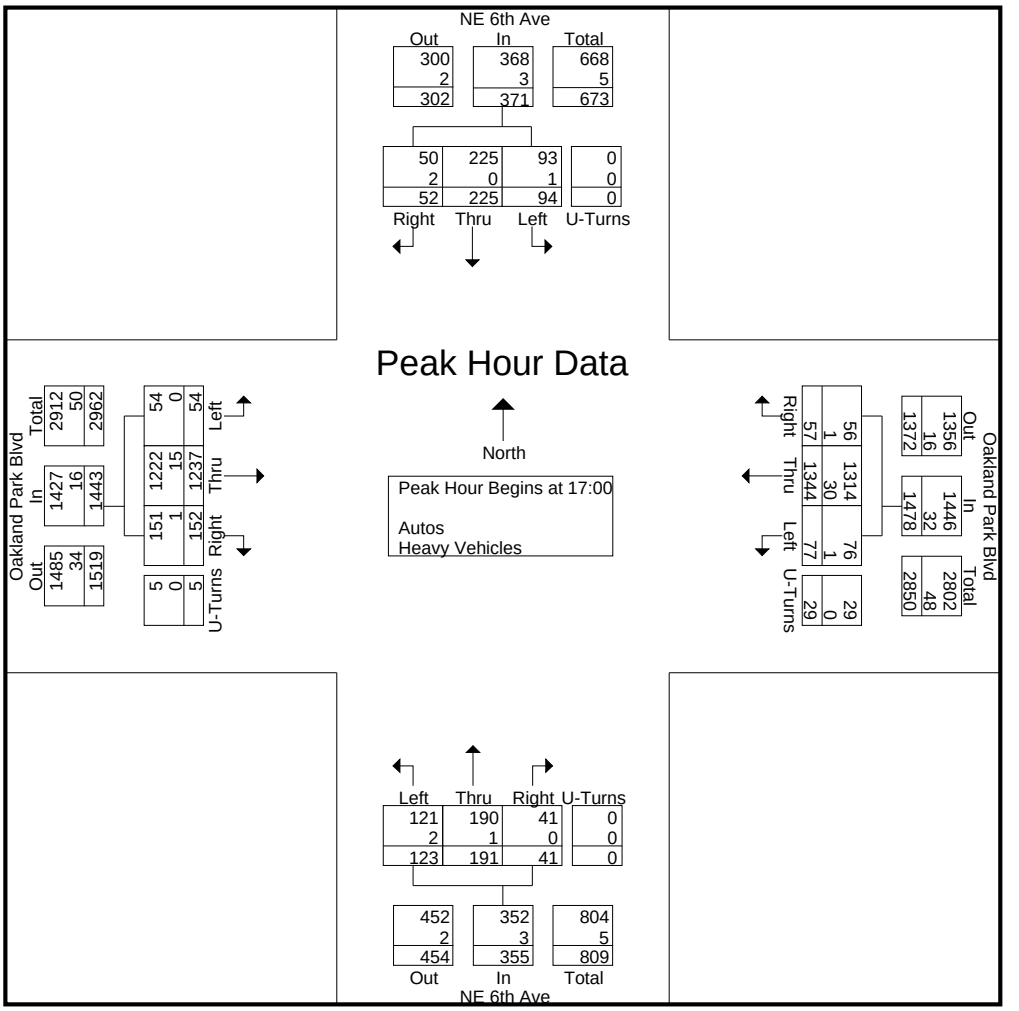


Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 4

	NE 6th Ave From North					Oakland Park Blvd From East					NE 6th Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	12	43	23	0	78	19	236	10	4	269	17	40	30	0	87	23	371	13	1	408	842
08:00	6	56	17	0	79	14	260	17	0	291	13	25	35	0	73	19	355	12	0	386	829
08:15	10	43	18	0	71	15	196	16	2	229	10	37	31	0	78	29	330	9	2	370	748
08:30	21	47	19	0	87	4	264	10	3	281	14	25	34	0	73	32	403	9	2	446	887
Total Volume	49	189	77	0	315	52	956	53	9	1070	54	127	130	0	311	103	1459	43	5	1610	3306
% App. Total	15.6	60	24.4	0		4.9	89.3	5	0.8		17.4	40.8	41.8	0		6.4	90.6	2.7	0.3		
PHF	.583	.844	.837	.000	.905	.684	.905	.779	.563	.919	.794	.794	.929	.000	.894	.805	.905	.827	.625	.902	.932
Autos	45	187	76	0	308	51	935	52	9	1047	54	127	123	0	304	98	1413				
% Autos	91.8	98.9	98.7	0	97.8	98.1	97.8	98.1	100	97.9	100	100	94.6	0	97.7	95.1	96.8	90.7	100	96.6	97.2
Heavy Vehicles																					
% Heavy Vehicles	8.2	1.1	1.3	0	2.2	1.9	2.2	1.9	0	2.1	0	0	5.4	0	2.3	4.9	3.2	9.3	0	3.4	2.8

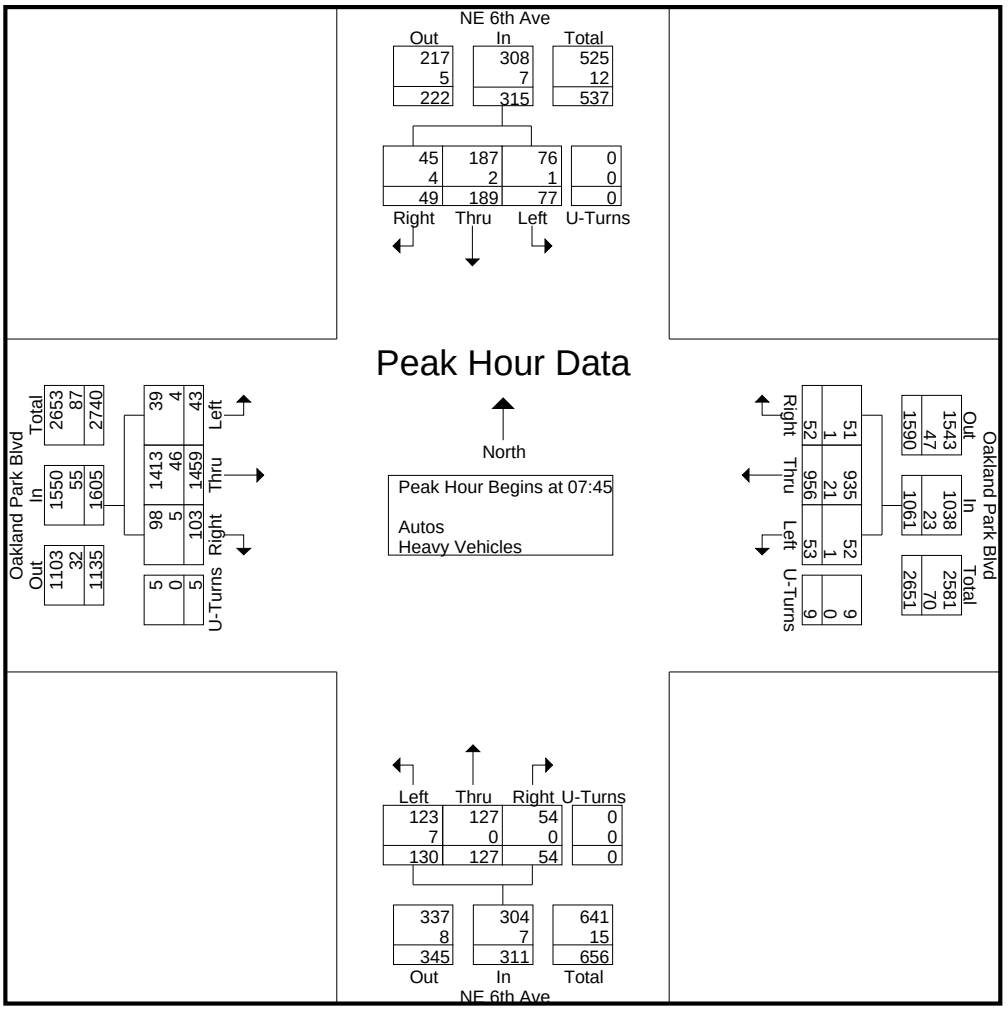
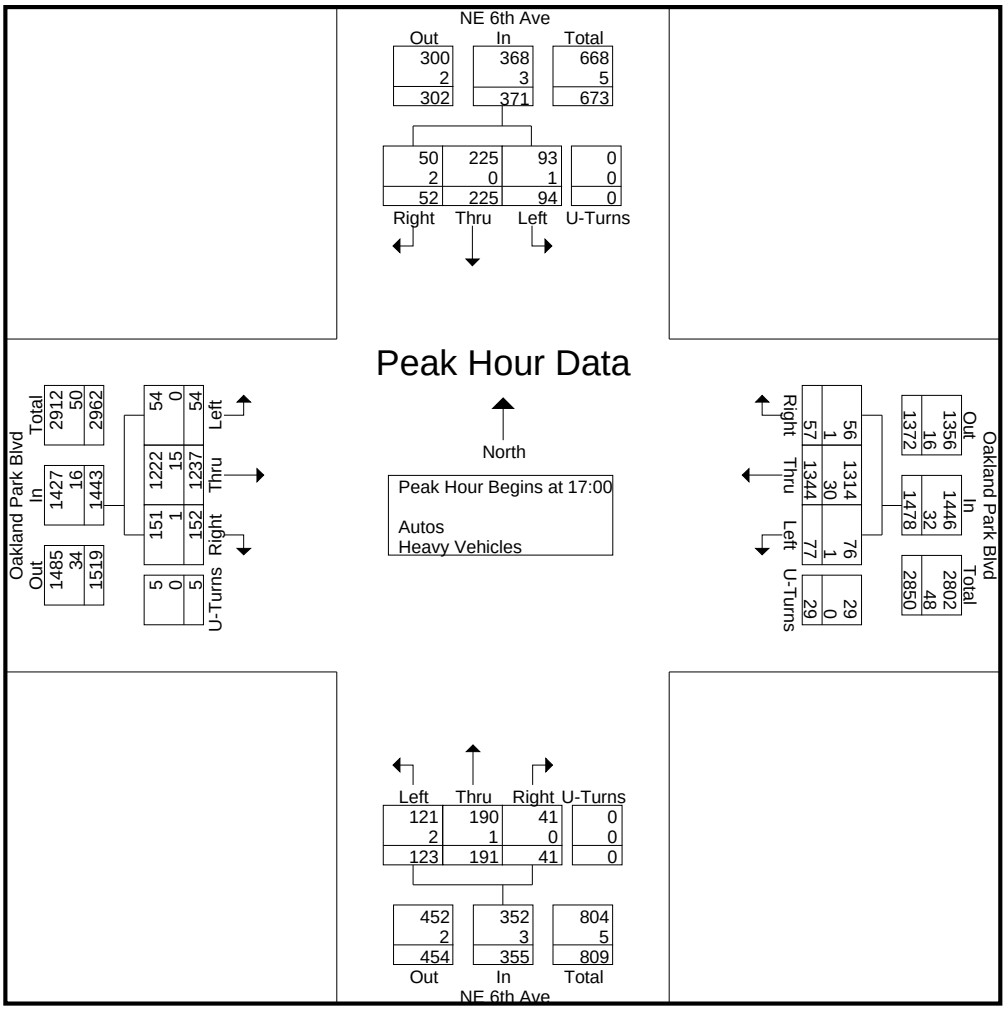


Exhibit F

Traf Tech Engineering Inc.

File Name : 4-NE 6th Ave & Oakland Park Blvd
Site Code : 00000000
Start Date : 9/14/2022
Page No : 5

	NE 6th Ave From North					Oakland Park Blvd From East					NE 6th Ave From South					Oakland Park Blvd From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	16	66	29	0	111	17	415	23	10	465	12	50	29	0	91	41	298	13	2	354	1021
17:15	9	51	13	0	73	13	293	16	8	330	7	67	32	0	106	37	339	15	0	391	900
17:30	17	62	28	0	107	16	316	20	5	357	11	40	31	0	82	31	273	10	1	315	861
17:45	10	46	24	0	80	11	320	18	6	355	11	34	31	0	76	43	327	16	2	388	899
Total Volume	52	225	94	0	371	57	1344	77	29	1507	41	191	123	0	355	152	1237	54	5	1448	3681
% App. Total	14	60.6	25.3	0		3.8	89.2	5.1	1.9		11.5	53.8	34.6	0		10.5	85.4	3.7	0.3		
PHF	.765	.852	.810	.000	.836	.838	.810	.837	.725	.810	.854	.713	.961	.000	.837	.884	.912	.844	.625	.926	.901
Autos	50	225	93	0	368	56	1314										1222				
% Autos	96.2	100	98.9	0	99.2	98.2	97.8	98.7	100	97.9	100	99.5	98.4	0	99.2	99.3	98.8	100	100	98.9	98.5
Heavy Vehicles																					
% Heavy Vehicles	3.8	0	1.1	0	0.8	1.8	2.2	1.3	0	2.1	0	0.5	1.6	0	0.8	0.7	1.2	0	0	1.1	1.5



Broward County Timing Sheet 9/12/2022 1:55:05 PM

Station : 1037 - Oakland Park Blvd & Powerline Rd (Standard File)

Phase	1 (EL)	2 (WT)	3 (ST)	4 (NT)	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Walk		7	7	7		7										
Ped Clearance		25	24	27		25										
Min Green	4	10	6	6	4	10										
Gap Ext	1.5	3	2	2	1.5	3										
Max1	12	40	25	40	12	40										
Max2	12	60	30	20	12	60										
Yellow Clr	5	5	5	5	5	5			3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2			1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON										
Auto Flash Entry				ON												
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green				1		1
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1				9		9
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1		2	3	2	4	1
Dwell Cyc Veh 2		6		5		6
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1		3	4	2	1	2
Exit 2				6	5	6
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 9/12/2022 1:55:05 PM

Station : 1037 - Oakland Park Blvd & Powerline Rd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		12	12	180	20	12	1		50		30	71	38	41	18	83		79								
9		13	13	180	53	13	1		50		30	72	37	41	18	84		78								
15		14	14	180	39	14	1		50		27	74	42	37	19	82		79								
20		15	15	160	34	15	1		50		25	65	40	30	25	65		70								
Day Plan 2											**Easy**															
		15	15	160	34	15	1		50		25	65	40	30	25	65		70								
1		100	254																							
6	30	15	15	160	34	15	1		50		25	65	40	30	25	65		70								

Day Plan 3											**Easy**															
		15	15	160	34	15	1		50		25	65	40	30	25	65		70								
1		100	254																							
6	30	15	15	160	34	15	1		50		25	65	40	30	25	65		70								
23		100	254																							

Station : 1037 - Oakland Park Blvd & Powerline Rd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																									1	1	1	1	1	1	1				2
12											1							1																									1	1	1	1	1	1	1			2
13												1		1				1																										1								2
14												1		1	1	1	1	1																											1							2
15												1		1																																1						2
16												1		1				1																																	1	2
17																																																				1
18																																																				1
19																																																				1
20																																																				1
21																																																				1
22																																																				1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Broward County Timing Sheet 9/14/2022 6:20:59 AM

Station : 1114 - Oakland Park Blvd & NE 6 Ave (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		17		27		17		27								
Min Green	4	10	4	6	4	10	4	6								
Gap Ext	1.5	3	1.5	2	2	3	1.5	2								
Max1	12	50	12	30	12	50	12	30								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 9/14/2022 6:20:59 AM

Station : 1114 - Oakland Park Blvd & NE 6 Ave (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		12	12	180	140	12	1	10	50		25	83	20	52	17	91	20	52								
9		13	13	180	165	13	1		50		32	87	24	37	25	94	24	37								
15		14	14	180	139	14	1	10	50		24	89	27	40	29	84	27	40								
20		15	15	160	137	15	1	10	50		20	75	20	45	20	75	20	45								
Day Plan 2											**Easy**															
		15	15	160	137	15	1	10	50		20	75	20	45	20	75	20	45								
1		100	254																							
6	30	15	15	160	137	15	1	10	50		20	75	20	45	20	75	20	45								

Day Plan 3											**Easy**															
		15	15	160	137	15	1	10	50		20	75	20	45	20	75	20	45								
1		100	254																							
6	30	15	15	160	137	15	1	10	50		20	75	20	45	20	75	20	45								
23		100	254																							

Broward County Timing Sheet 9/14/2022 6:20:59 AM

Station : 1114 - Oakland Park Blvd & NE 6 Ave (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**S**	**M**	**T**	**W**	**T**	**F**	**S**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**Day Plan**
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
20																																																			1
21																																																			1
22																																																			1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Broward County Timing Sheet 8/18/2022 1:30:55 PM

Station : 1149 - Oakland Park Blvd & Andrews Ave (Standard File)

Phase	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7 (NL)	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		28		23		28		23								
Min Green	5	10	5	6	5	10	5	6								
Gap Ext	1.5	3	1.5	2.2	1.5	3	1.5	2.2								
Max1	20	50	20	40	20	50	20	40								
Max2																
Yellow Clr	4	4	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash						
Override Higher Preempt						
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1	4	2	3	2	4	1
Dwell Cyc Veh 2	8	6	8	5	7	6
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max		200		200
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt		ON		ON
No Skip				
Priority P1		2		6
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1	1	3	4	2	4	2
Exit 2	5	7	8	6	8	6
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 8/18/2022 1:30:55 PM

Station : 1149 - Oakland Park Blvd & Andrews Ave (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		12	12	180	110	12	2	10	50		44	60	22	54	21	83	22	54								
9		13	13	180	137	13	2	10	50		34	66	29	51	30	70	33	47	40							
15		14	14	180	114	14	2	10	50		35	68	21	56	30	73	31	46								
20		15	15	160	127	15	1	10	50		26	61	28	45	26	61	28	45								
Day Plan 2											**Easy**															
		15	15	160	127	15	1	10	50		26	61	28	45	26	61	28	45								
1		100	254																							
6	30	15	15	160	127	15	1	10	50		26	61	28	45	26	61	28	45								

Exhibit F

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 3											**Easy**															
		15	15	160	127	15	1	10	50		26	61	28	45	26	61	28	45								
1		100	254																							
6	30	15	15	160	127	15	1	10	50		26	61	28	45	26	61	28	45								
23		100	254																							

Station : 1149 - Oakland Park Blvd & Andrews Ave (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
20																																																			1
21																																																			1
22																																																			1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Broward County Timing Sheet 9/14/2022 6:20:43 AM

Station : 2028 - Powerline Rd & NW 29 St (Standard File)

Phase	1 (SL)	2 (NT)	3	4 (ET)	5	6 (ST)	7	8 (WT)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		14		27		14		27								
Min Green	4	10		6		10		6								
Gap Ext	1.5	3		2		3		2								
Max1	12	50		25		50		25								
Max2																
Yellow Clr	5	5	4	4	4	5	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON		ON		ON								
Auto Flash Entry				ON				ON								
Auto Flash Exit		ON				ON										
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash					ON	ON
Override Higher Preempt					ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green						
Min Dwell	8	8	8	8	8	8
Max Presence	180	180	180	180	180	180
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 9/14/2022 6:20:43 AM

Station : 2028 - Powerline Rd & NW 29 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	80	7	2	1		50		12	33		35		45		35								
9		3	3	160	18	3	1		50		23	92		45		115		45								
15		4	4	160	67	4	1		50		22	95		43		117		43								
20		3	3	160	18	3	1		50		23	92		45		115		45								
Day Plan 2											**Easy**															
		3	3	160	18	3	1		50		23	92		45		115		45								
1		100	254																							
6	30	5	5	80	18	5	1		50		12	38		30		50		30								

Exhibit F

Day Plan 3											**Easy**															
		3	3	160	18	3	1		50		23	92		45		115		45								
1		100	254																							
6	30	5	5	80	18	5	1		50		12	38		30		50		30								
23		100	254																							

Station : 2028 - Powerline Rd & NW 29 St (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												**Day of Weekk**							**Day of Month**									**1**										**2**										**3**		
Plan	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**S**	**M**	**T**	**W**	**T**	**F**	**S**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**Day Plan**
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
20																																																			1
21																																																			1
22																																																			1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Broward County Timing Sheet 9/12/2022 1:57:10 PM

Station : 2164 - Andrews Ave & N 26 St (Standard File)

Phase	1 (SL)	2 (ST)	3	4 (WR)	5	6	7	8	9	10	11	12	13	14	15	16
Walk		7														
Ped Clearance																
Min Green	4	12		6												
Gap Ext	1.5	3		2												
Max1	15	40		25												
Max2																
Yellow Clr	4	4		4					3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2		2					1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON												
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall		ON														
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON														
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell						
Max Presence						
Track Veh 1						
Track Veh 2						
Track Veh 3						
Track Veh 4						
Dwell Cyc Veh 1						
Dwell Cyc Veh 2						
Dwell Cyc Veh 3						
Dwell Cyc Veh 4						
Dwell Cyc Veh 5						
Dwell Cyc Veh 6						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Veh 7						
Dwell Cyc Veh 8						
Dwell Cyc Veh 9						
Dwell Cyc Veh 10						
Dwell Cyc Veh 11						
Dwell Cyc Veh 12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						
Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell vPed7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County Timing Sheet 9/12/2022 1:57:10 PM

Station : 2164 - Andrews Ave & N 26 St (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		12	12	90		12	1		17		15	50		25	15	50		25								
9		13	13	90	34	13	1		17		15	50		25	15	50		25								
15		14	14	90	33	14	1		17		15	50		25	15	50		25								
20		13	13	90	34	13	1		17		15	50		25	15	50		25								
Day Plan 2											**Easy**															
		3	3	80	54	3	1	10	50		15	32		33	15	32		33								
1		100	254																							
6	30	3	3	80	54	3	1	10	50		15	32		33	15	32		33								

Exhibit F

Day Plan 3											**Easy**															
		3	3	80	54	3	1	10	50		15	32		33	15	32		33								
1		100	254																							
6	30	3	3	80	54	3	1	10	50		15	32		33	15	32		33								
23		100	254																							

Broward County Timing Sheet 9/12/2022 1:57:10 PM

Station : 2164 - Andrews Ave & N 26 St (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

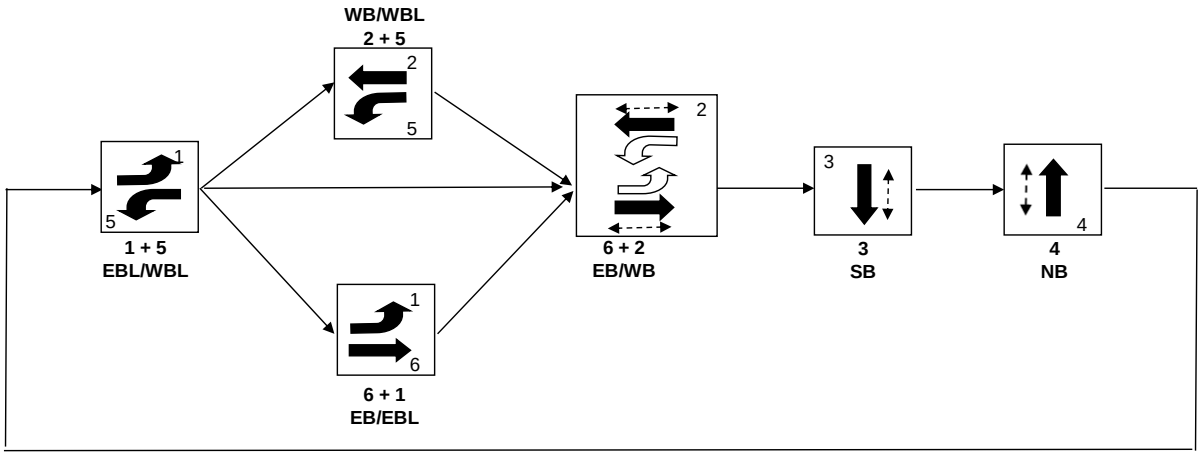
Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**S**	**M**	**T**	**W**	**T**	**F**	**S**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**	**1**	**Day Plan**
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
20																																																			1
21																																																			1
22																																																			1

23																																																			1
24																																																			1
25																																																			1
26																																																			1
27																																																			1
28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Sequence of Operation for (1037) Oakland Park Blvd (SR 816) & Powerline Road (SR 845) Wilton Manors



Sequence of Operation for (1114) Oakland Park Blvd (SR 816) and NE 6 Ave

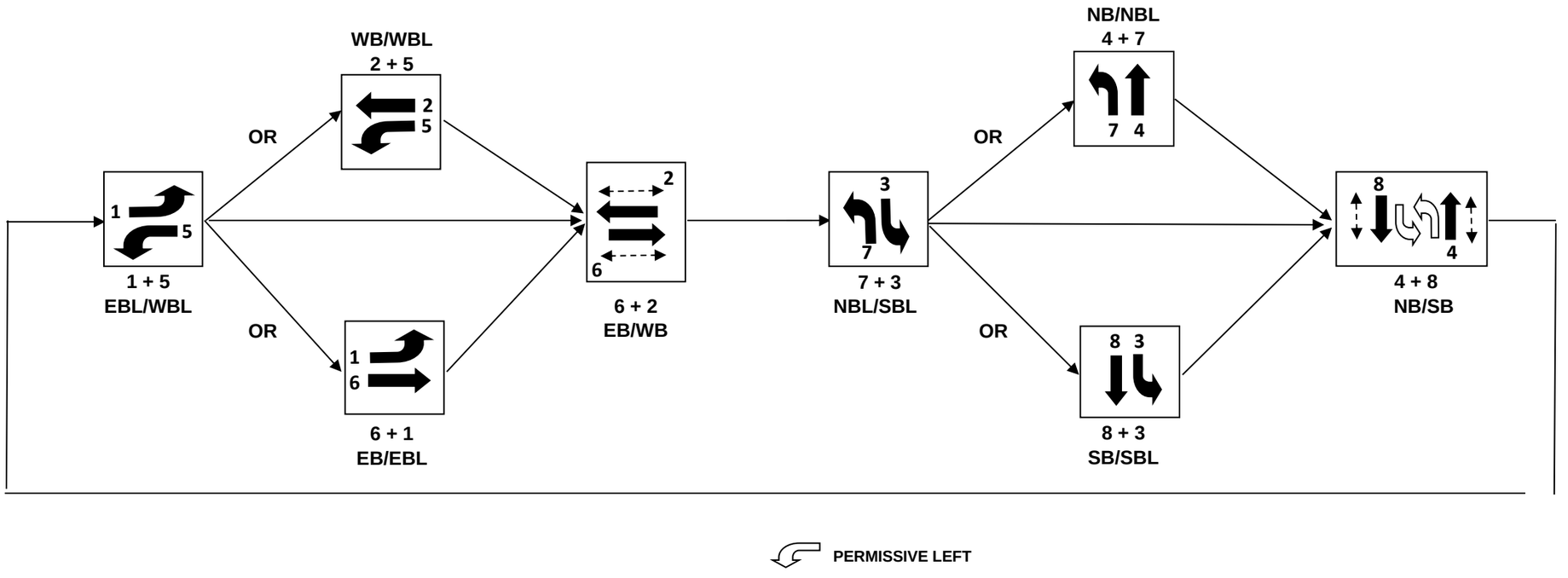
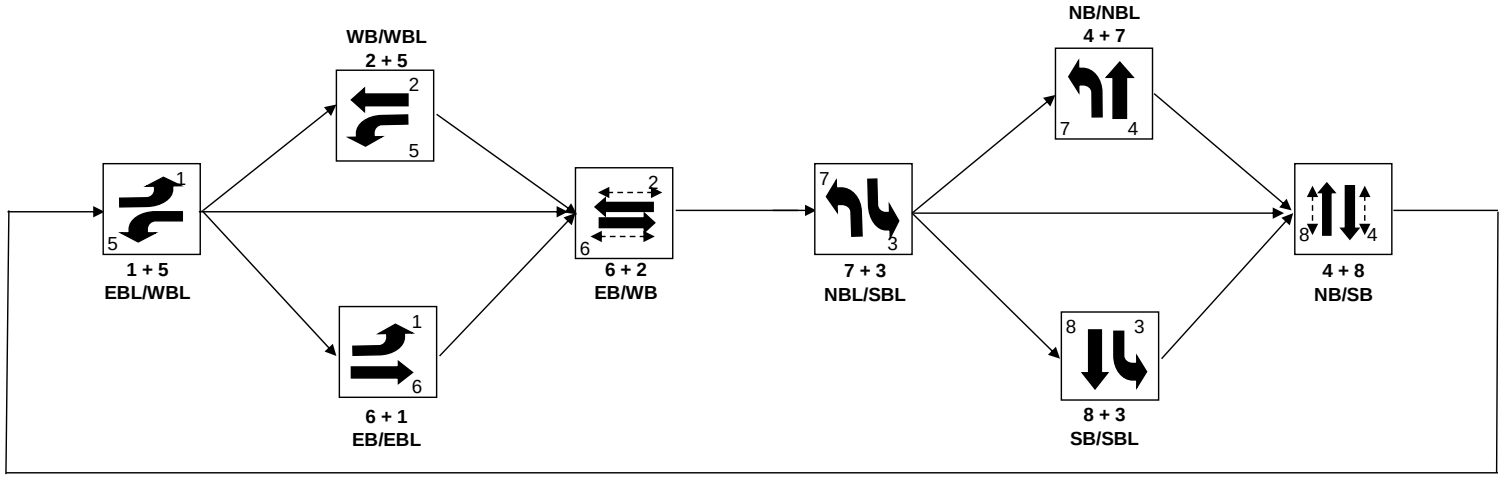


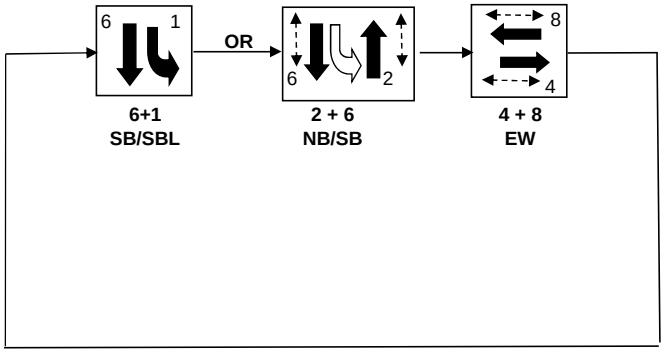
Exhibit F

Sequence of Operation for (1149), Oakland Park Blvd (SR 816) and Andrews Avenue Oakland Park

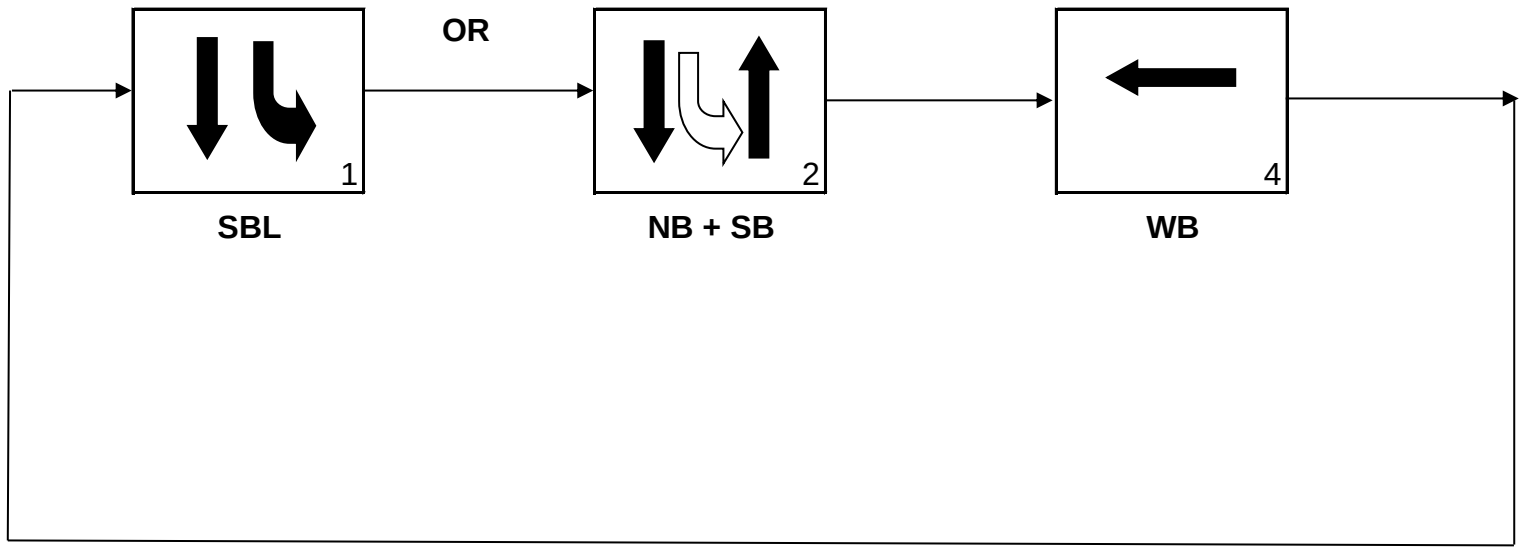


Sequence of Operation for (2028) Powerline Road (SR 845) and NW 29 Street

Wilton Manors



Sequence of Operation
Andrews Avenue and N 26 Street
Intersection Number 2164



BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1037	**Initial Operation Date**	7/69
Controller Type	2070 LN	**System Number**	1037
Modification Number	25	**Modification Date**	02/11/2021
Drawing/Project No	413795-1-52-01	**FPL Grid Number**	87583523203
Intersection	OAKLAND PARK BLVD(SR 816) and POWERLINE ROAD (SR 845)		
Municipality	WILTON MANORS		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3,8	4,7	5	6		
Direction	EBL	WB	SB	NB	WBL	EB		
Initial Green(MIN)	4	10	6	6	4	10		
Vehicle Ext.(GAP)	1.5	3.0	2.0	2.0	1.5	3.0		
Maximum Green I	12	40	25	20	12	40		
Maximum Green II	12	50	30	25	12	50		
Yellow Clearance	5.0	5.0	5.0	5.0	5.0	5.0		
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0		
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN		
Detector Delay								
Walk		7	7	7		7		
Pedestrian Clearance		25	24	27		25		
Permissive	5 SECT				5 SECT			
Flash Operation		RED	RED	RED		RED		

Attachment

NOTES:

1. ANTI-BACKDOWN EAST/WEST: PHASES 2+6 ON ---> OMIT 1+5.
2. MOD. 25 UPDATES PHASE 4 WALK VALUES.

Submitted By _____ **Approved By** _____

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1114	**Initial Operation Date**	UNKNOWN
Controller Type	2070 LN	**System Number**	1114
Modification Number	14	**Modification Date**	07/17/2019
Drawing/Project No	DES. GRP. 1	**FPL Grid Number**	87683603604
Intersection	OAKLAND PARK BLVD (SR 816) and NE 6 AVENUE		
Municipality	OAKLAND PARK		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	4	10	4	6	4	10	4	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.0	1.5	3.0	1.5	2.0
Maximum Green I	12	50	12	30	12	50	12	30
Maximum Green II								
Yellow Clearance	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		17		27		17		27
Permissive	NO		YES		NO		YES	
Flash Operation	RED	YELLOW		RED	RED	YELLOW		RED

Attachment

NOTES:

1. DUAL ENTRY NORTH/SOUTH.
2. MOD. 14 CONVERTS EAST/WEST LEFT TURN MOVEMENT TO PROTECTED ONLY SIGNAL OPERATION VIA WORK ORDER: WOIT2019070686.

Submitted By _____ **Approved By** _____

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	1149	**Initial Operation Date**	1/12/72
Controller Type	2070 LN	**System Number**	1149
Modification Number	16	**Modification Date**	04/08/2014
Drawing/Project No		**FPL Grid Number**	87683083601
Intersection	OAKLAND PARK BLVD(SR 816) and ANDREWS AVENUE		
Municipality	OAKLAND PARK		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2	3	4	5	6	7	8
Direction	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Initial Green(MIN)	5	10	5	6	5	10	5	6
Vehicle Ext.(GAP)	1.5	3.0	1.5	2.2	1.5	3.0	1.5	2.2
Maximum Green I	20	50	20	40	20	50	20	40
Maximum Green II								
Yellow Clearance	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All Red Clearance	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Phase Recall	OFF	MIN	OFF	OFF	OFF	MIN	OFF	OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		28		23		28		23
Permissive	NO		NO		NO		DUAL	
Flash Operation	RED	RED	RED	RED	RED	RED	RED	RED

Attachment

NOTES:

1. DUAL ENTRY HARDWIRED NORTH/SOUTH.
2. MOD. 16 UPDATES PEDESTRIAN CLEARANCE TIMES.

Submitted By _____ **Approved By** _____

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	2028	**Initial Operation Date**	6/6/63
Controller Type	2070 LN	**System Number**	2028
Modification Number	20	**Modification Date**	03/30/2022
Drawing/Project No	GRP. 1	**FPL Grid Number**	87583520701
Intersection	POWERLINE ROAD (SR 845) and NW 29 STREET		
Municipality	WILTON MANORS		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2		4		6		8
Direction	SBL	NB		EB		SB		WB
Initial Green(MIN)	4	10		6		10		6
Vehicle Ext.(GAP)	1.5	3.0		2.0		3.0		2.0
Maximum Green I	12	50		25		50		25
Maximum Green II								
Yellow Clearance	5.0	5.0		4.0		5.0		4.0
All Red Clearance	2.0	2.0		2.0		2.0		2.0
Phase Recall	OFF	MIN		OFF		MIN		OFF
Detector Delay								
Walk		7		7+L		7		7+L
Pedestrian Clearance		14		27		14		27
Permissive	5-SECT							
Flash Operation		YELLOW		RED		YELLOW		RED

Attachment

NOTES:

1. ANTI-BACKDOWN SOUTHBOUND: PHASES 2+6 ON---> OMIT PHASE 1.
2. DUAL ENTRY EAST/WEST.
3. LEAD PEDESTRIAN INTERVAL (LPI): 5 SECONDS PHASES 4 AND 8.
4. MOD. 20 UPDATES LPIs.

Submitted By _____ **Approved By** _____

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	2164	**Initial Operation Date**	UNKNOWN
Controller Type	2070 LN	**System Number**	2164
Modification Number	11	**Modification Date**	05/07/2019
Drawing/Project No	600 - DG 3	**FPL Grid Number**	87682068101
Intersection	ANDREWS AVENUE and N 26 STREET		
Municipality	WILTON MANORS		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2,6		8				
Direction	SBL	N/S		WB				
Initial Green(MIN)	4	12		6				
Vehicle Ext.(GAP)	1.5	3.0		2.0				
Maximum Green I	15	50		25				
Maximum Green II								
Yellow Clearance	4.0	4.0		4.0				
All Red Clearance	2.0	2.0		2.0				
Phase Recall	OFF	MIN		OFF				
Detector Delay								
Walk		7						
Pedestrian Clearance								
Permissive	5 SECT							
Flash Operation		YELLOW		RED				

Attachment

NOTES:

1. ANTI-BACKDOWN DIODE SOUTHBOUND.
2. MOD. 11 UPDATE ALL RED CLEARANCE.

Submitted By _____ **Approved By** _____

ATTACHMENT C

PSCF and Growth Rate Analysis

Exhibit F

Growth Rate Trend Analysis Calcualtions - 5 Years												
Description	**FDOT Historical AADT Data**											
	0022			**5139**			**7446**			**7448**		
Option	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**
Trend Growth Rate 5 years	1.45	1.30	1.30	-1.37	-1.90	-1.90	-6.09	-5.43	-5.43	-4.22	-3.72	-3.72
Trend R-squared 5 years	11.19	11.36	9.09	19.23	17.88	34.45	66.22	66.22	42.32	66.22	66.22	42.32
Average Growth Rate (5-year) Linear all stations	-2.56											
Average Growth Rate (5-year) Exponential all stations	-2.44											
Average Growth Rate (5-year) Decaying Exponential all stations	-2.44											
Highest R-Square	**66.22**									**Exponential**		
Growth Rate (5-year) with the highest R- Square	**-2.44**											

Growth Rate Trend Analysis Calcualtions - 10 Years												
Description	**FDOT Historical AADT Data**											
	0022			**5139**			**7446**			**7448**		
Option	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**	**Linear**	**Exponential**	**Decaying Exponential**
Trend Growth Rate 10 years	0.81	0.75	0.75	-0.03	0.14	0.14	1.82	2.66	2.66	1.04	1.39	1.39
Trend R-squared 10 years	12.53	12.09	10.82	0.04	0.01	0.40	9.98	8.03	20.46	9.37	7.74	16.25
Average Growth Rate (10-year) Linear all stations	0.91											
Average Growth Rate (10-year) Exponential all stations	1.24											
Average Growth Rate (10-year) Decaying Exponential all stations	1.24											
Highest R-Square	**20.46**									**Decaying Exponential**		
Growth Rate (10-year) with highest R- Square	**1.24**											

Notes:

What Is R-squared?

R-squared is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression.

The definition of R-squared is fairly straight-forward; it is the percentage of the response variable variation that is explained by a linear model. Or:

R-squared = Explained variation / Total variation

R-squared is always between 0 and 100%:

0% indicates that the model explains none of the variability of the response data around its mean.

100% indicates that the model explains all the variability of the response data around its mean.

In general, the higher the R-squared, the better the model fits your data. However, there are important conditions for this guideline that I'll talk about both in this post and my next post.

Exhibit F

Table
Growth Rate Analysis

Roadwy Segment		Year 2019	Year 2045
Oakland Park Blvd	W of Andrews	65,500	69,600
	E of Andrews	41,500	53,200
Andrews Avenue	S of Oakland	18,300	38,500
	N of Oakland	29,000	35,000
	Totals	154,300	196,300
Growth Rate in 26 Years =			**0.009302**

Source: Broward County 2019 -2040 and 2020 - 2045
Due to Covid 19, used 2019 volumes instead of 2020.

TRAFTECH ENGINEERING, INC.

Exhibit F

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 0022 - SR 816/OAKLAND PARK BLVD - E OF ANDREWS AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	48500 C	E 25000	W 23500	9.00	53.80	7.20
2020	50000 F	E 25500	W 24500	9.00	53.90	4.20
2019	53000 C	E 27000	W 26000	9.00	54.60	4.20
2018	49000 C	E 24500	W 24500	9.00	54.50	4.20
2017	42000 C	E 18000	W 24000	9.00	51.90	4.40
2016	49000 C	E 24500	W 24500	9.00	54.10	4.40
2015	45500 C	E 22500	W 23000	9.00	54.00	4.40
2014	48000 C	E 24500	W 23500	9.00	54.20	4.60
2013	44500 C	E 21500	W 23000	9.00	53.60	4.30
2012	50500 C	E 25500	W 25000	9.00	52.20	4.30
2011	44000 C	E 22000	W 22000	9.00	52.50	3.60
2010	47000 C	E 23500	W 23500	8.35	52.69	3.60
2009	44500 C	E 22500	W 22000	8.53	53.89	3.60
2008	46500 C	E 23000	W 23500	8.81	54.16	8.50
2007	48000 C	E 24500	W 23500	8.63	55.75	8.50
2006	48500 C	E 24500	W 24000	8.40	55.34	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Exhibit F

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 5139 - SR 816/OAKLAND PARK BLVD - W OF ANDREWS AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	56500 C	E 29500	W 27000	9.00	53.80	4.20
2020	56000 F	E 29500	W 26500	9.00	53.90	4.20
2019	59000 C	E 31000	W 28000	9.00	54.60	4.20
2018	57000 C	E 29000	W 28000	9.00	54.50	5.70
2017	54500 C	E 26500	W 28000	9.00	51.90	5.70
2016	64000 C	E 31500	W 32500	9.00	54.10	5.70
2015	53500 C	E 27000	W 26500	9.00	54.00	3.00
2014	57500 C	E 29500	W 28000	9.00	54.20	6.00
2013	57500 C	E 29500	W 28000	9.00	53.60	7.50
2012	63000 C	E 31500	W 31500	9.00	52.20	5.00
2011	53500 C	E 28500	W 25000	9.00	52.50	5.00
2010	59500 C	E 30500	W 29000	8.35	52.69	5.00
2009	60000 C	E 30500	W 29500	8.53	53.89	5.90
2008	59500 C	E 31000	W 28500	8.81	54.16	5.90
2007	53000 C	E 27000	W 26000	8.63	55.75	4.00
2006	55000 C	E 28500	W 26500	8.40	55.34	2.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Exhibit F

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7446 - ANDREWS AVE, N OF OAKLAND PARK BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	19000 F	N 9200	S 9800	9.00	53.80	14.30
2020	19200 C	N 9300	S 9900	9.00	53.90	8.80
2019	29000 R	N 13500	S 15500	9.00	54.60	5.50
2018	29000 T	N 13500	S 15500	9.00	54.50	6.00
2017	29000 S	N 13500	S 15500	9.00	51.90	6.20
2016	29000 F	N 13500	S 15500	9.00	54.10	2.90
2015	29000 C	N 13500	S 15500	9.00	54.00	3.40
2014	21500 T	N 11000	S 10500	9.00	54.20	7.40
2013	21500 S	N 11000	S 10500	9.00	53.60	7.60
2012	21500 F	N 11000	S 10500	9.00	52.20	5.90
2011	21500 C	N 11000	S 10500	9.00	52.50	6.30
2010	21500 F	N 11000	S 10500	8.35	52.69	9.30
2009	21500 C	N 11000	S 10500	8.53	53.89	5.30
2008	23000 C	N 11000	S 12000	8.81	54.16	6.50
2007	26500 C	N 13000	S 13500	8.63	55.75	4.80
2006	25000 C	N 12000	S 13000	8.40	55.34	2.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Exhibit F

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 86 - BROWARD

SITE: 7448 - ANDREWS AVE, S OF OAKLAND PARK BLVD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	21400 F	N 9900	S 11500	9.00	53.80	14.30
2020	21500 C	N 10000	S 11500	9.00	53.90	8.80
2019	28000 T	N 13500	S 14500	9.00	54.60	5.50
2018	28000 S	N 13500	S 14500	9.00	54.50	6.00
2017	28000 F	N 13500	S 14500	9.00	51.90	6.20
2016	28000 C	N 13500	S 14500	9.00	54.10	2.90
2015	24000 V	0	0	9.00	54.00	3.40
2014	23500 R			9.00	54.20	7.40
2013	23500 T	0	0	9.00	53.60	7.60
2012	23500 S	0	0	9.00	52.20	5.90
2011	23500 F	0	0	9.00	52.50	6.30
2010	23500 C	N 11500	S 12000	8.35	52.69	9.30
2009	22000 F	N 11500	S 10500	8.53	53.89	5.30
2008	23000 C	N 12000	S 11000	8.81	54.16	6.50
2007	27500 C	N 14000	S 13500	8.63	55.75	4.80
2006	26000 C	N 13000	S 13000	8.40	55.34	2.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

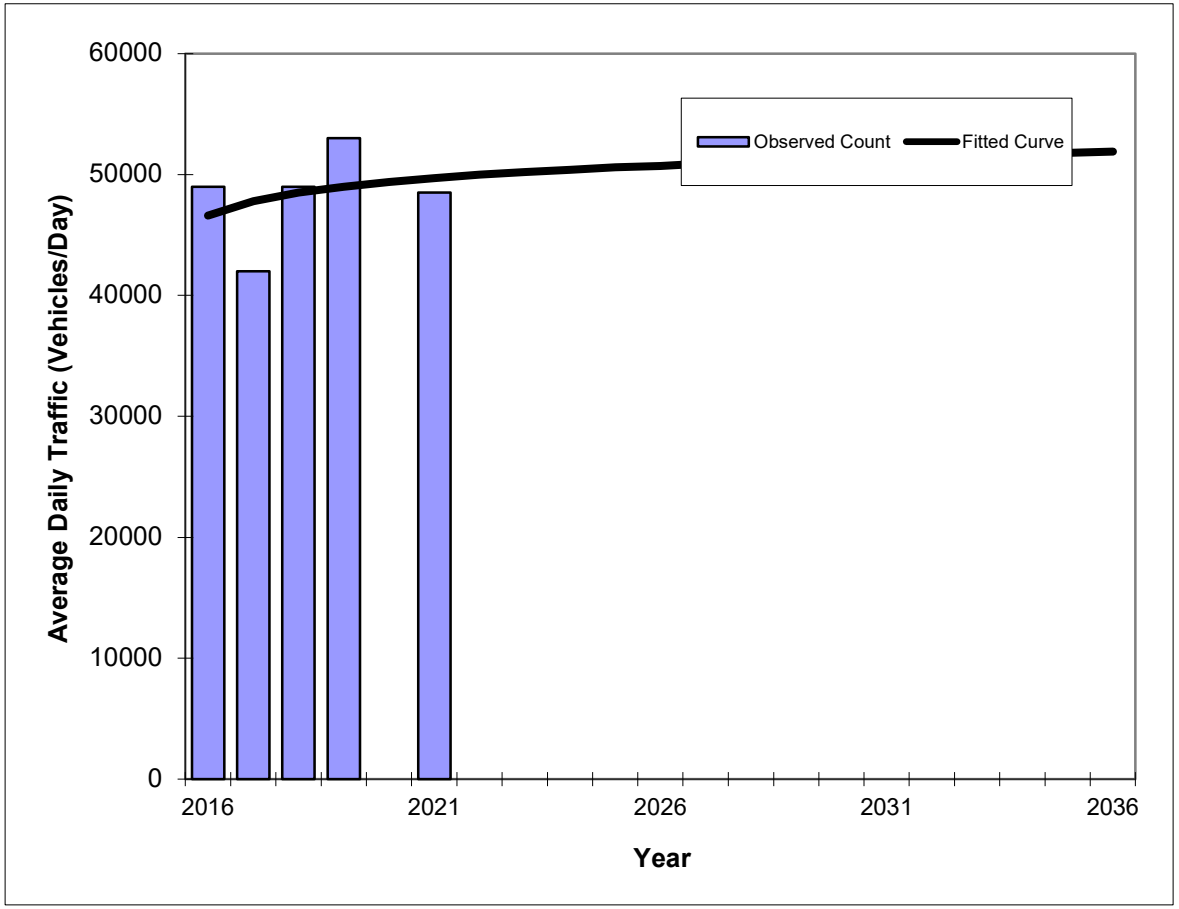
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	49000	46600
2017	42000	47800
2018	49000	48500
2019	53000	49000
2020	n/a	n/a
2021	48500	49700
2022 Opening Year Trend		
2022	N/A	50000
2023 Mid-Year Trend		
2023	N/A	50200
2025 Design Year Trend		
2025	N/A	50600
TRANPLAN Forecasts/Trends		

Trend R-squared:	9.09%
Compounded Annual Historic Growth Rate:	1.30%
Compounded Growth Rate (2021 to Design Year):	0.45%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

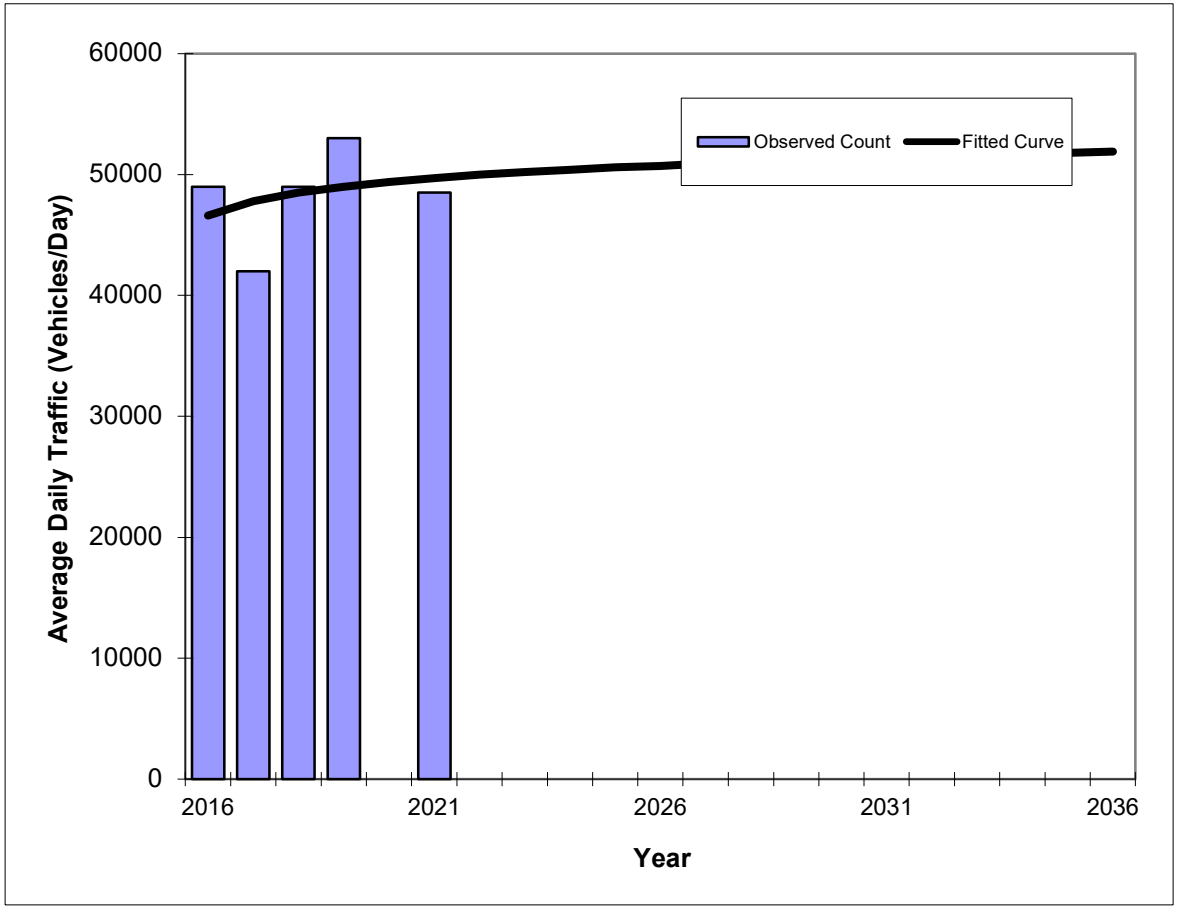
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	49000	46600
2017	42000	47800
2018	49000	48500
2019	53000	49000
2020	n/a	n/a
2021	48500	49700
2022 Opening Year Trend		
2022	N/A	50000
2023 Mid-Year Trend		
2023	N/A	50200
2025 Design Year Trend		
2025	N/A	50600
TRANPLAN Forecasts/Trends		

Trend R-squared:	11.36%
Compounded Annual Historic Growth Rate:	1.30%
Compounded Growth Rate (2021 to Design Year):	0.45%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

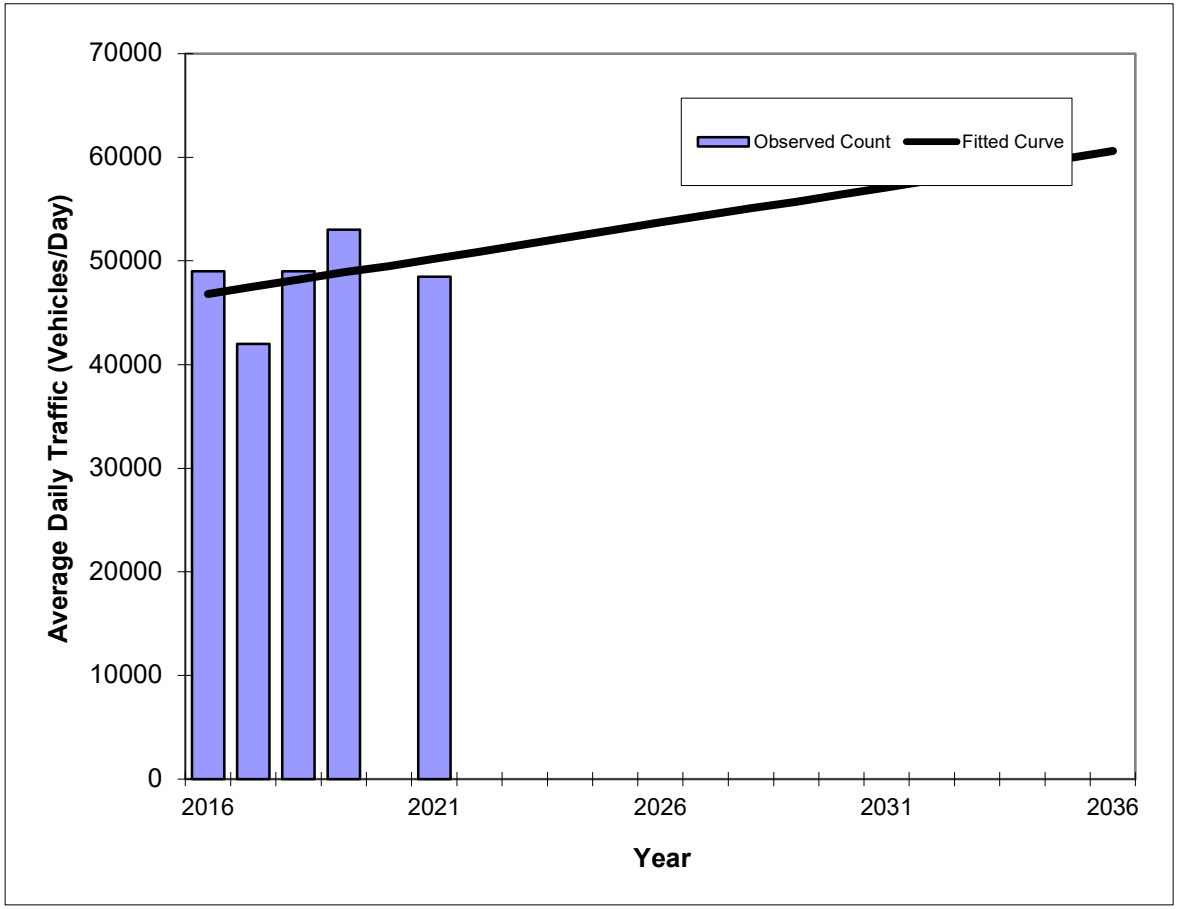
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	49000	46800
2017	42000	47500
2018	49000	48200
2019	53000	48900
2020	n/a	n/a
2021	48500	50200
2022 Opening Year Trend		
2022	N/A	50900
2023 Mid-Year Trend		
2023	N/A	51600
2025 Design Year Trend		
2025	N/A	53000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	689
Trend R-squared:	11.19%
Trend Annual Historic Growth Rate:	1.45%
Trend Growth Rate (2021 to Design Year):	1.39%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

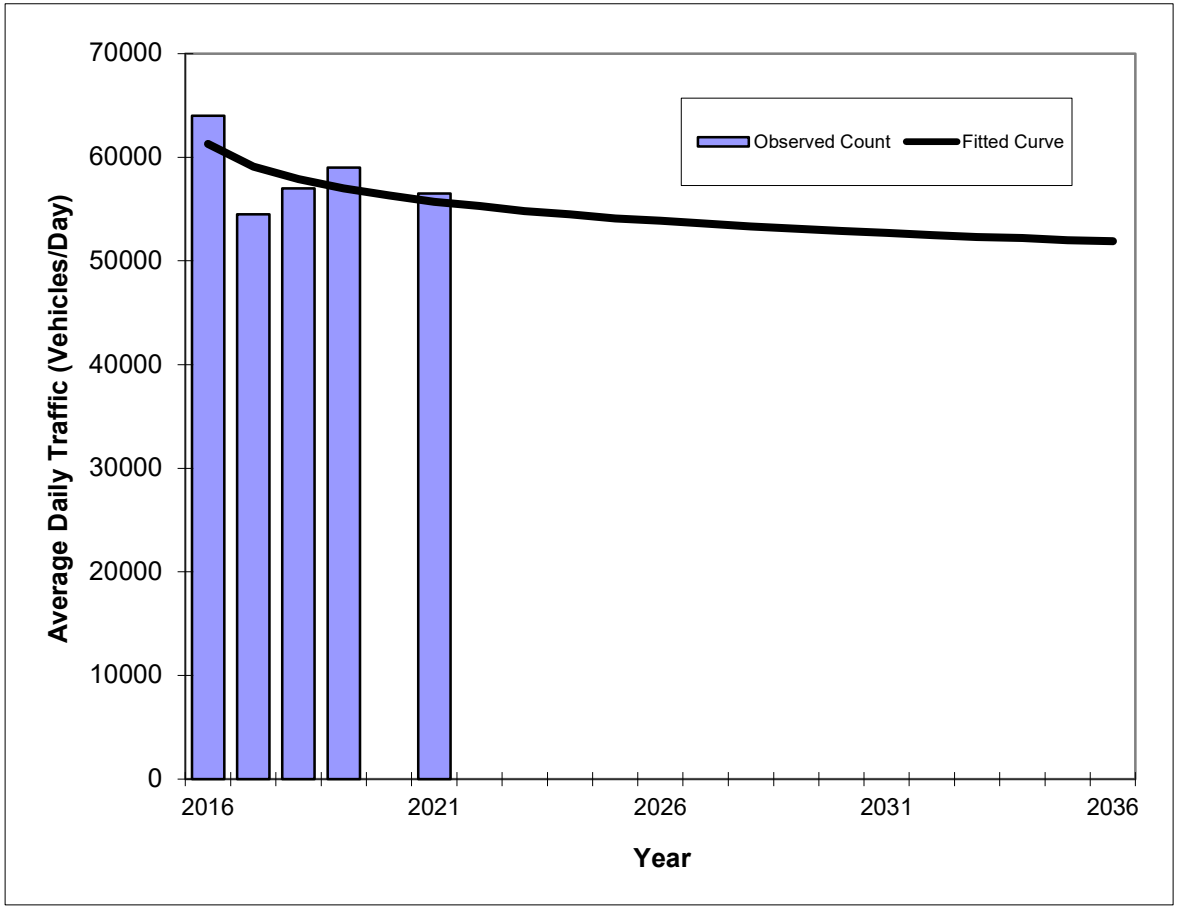
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	64000	61300
2017	54500	59100
2018	57000	57900
2019	59000	57000
2020	n/a	n/a
2021	56500	55700
2022 Opening Year Trend		
2022	N/A	55300
2023 Mid-Year Trend		
2023	N/A	54800
2025 Design Year Trend		
2025	N/A	54100
TRANPLAN Forecasts/Trends		

Trend R-squared:	34.45%
Compounded Annual Historic Growth Rate:	-1.90%
Compounded Growth Rate (2021 to Design Year):	-0.73%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

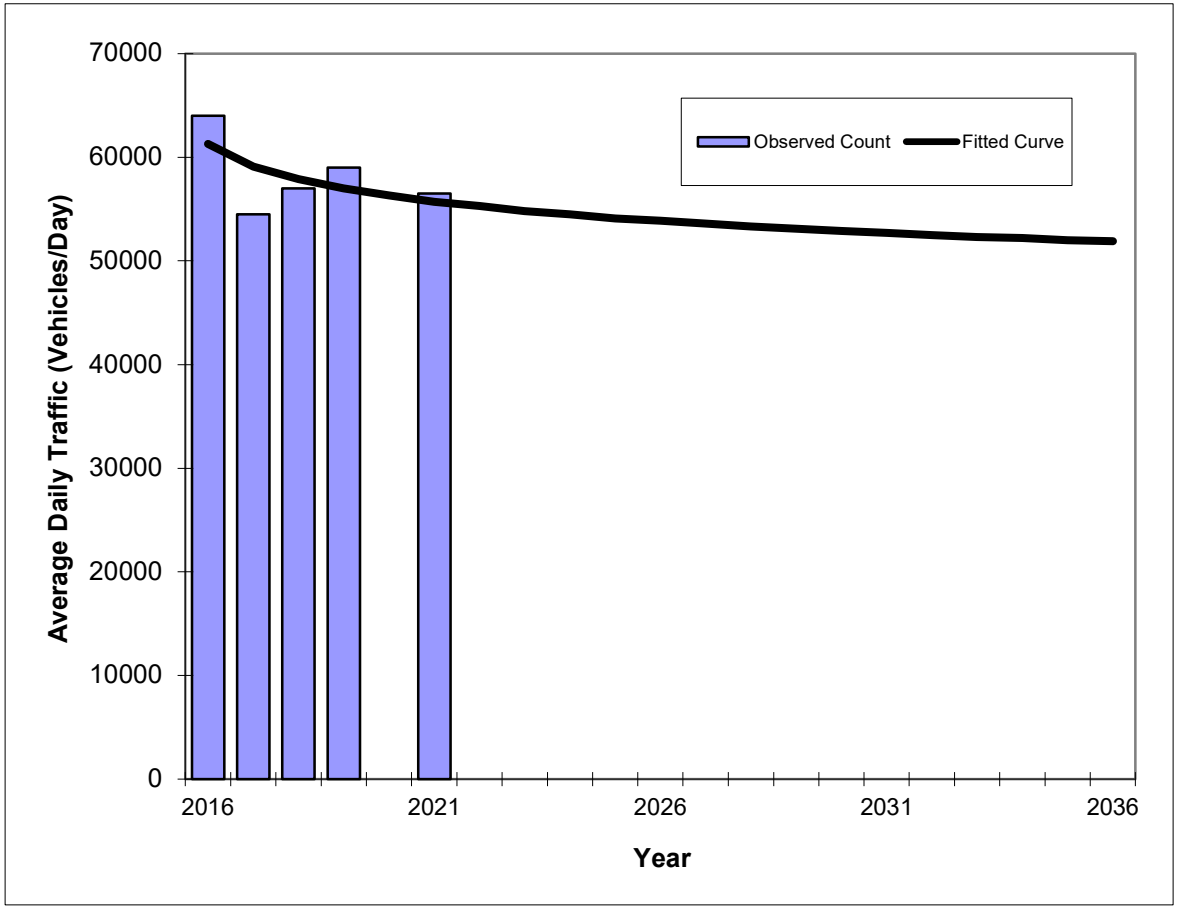
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	64000	61300
2017	54500	59100
2018	57000	57900
2019	59000	57000
2020	n/a	n/a
2021	56500	55700
2022 Opening Year Trend		
2022	N/A	55300
2023 Mid-Year Trend		
2023	N/A	54800
2025 Design Year Trend		
2025	N/A	54100
TRANPLAN Forecasts/Trends		

Trend R-squared:	17.88%
Compounded Annual Historic Growth Rate:	-1.90%
Compounded Growth Rate (2021 to Design Year):	-0.73%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

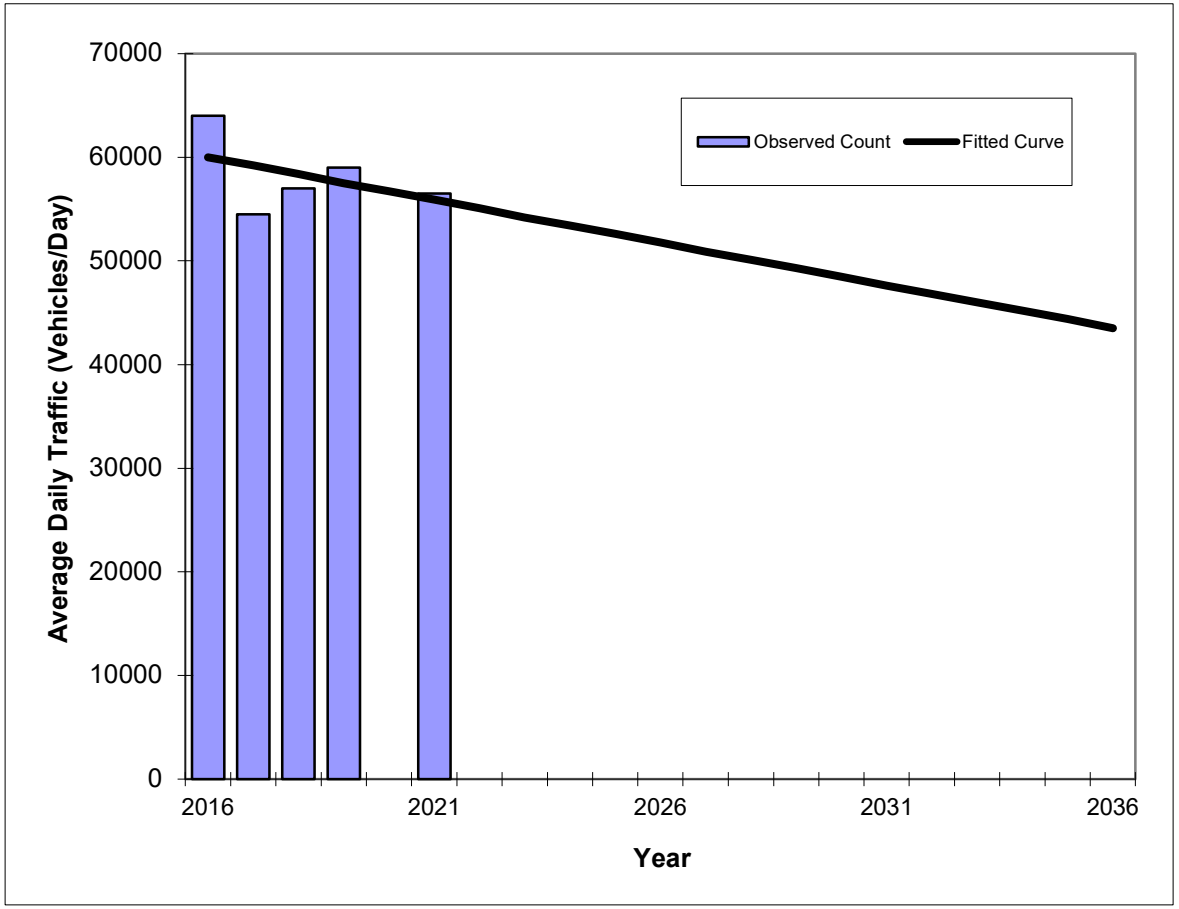
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	4

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2016	64000	60000
2017	54500	59200
2018	57000	58400
2019	59000	57500
2020	n/a	n/a
2021	56500	55900
2022 Opening Year Trend		
2022	N/A	55100
2023 Mid-Year Trend		
2023	N/A	54200
2025 Design Year Trend		
2025	N/A	52600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-824
Trend R-squared:	19.23%
Trend Annual Historic Growth Rate:	-1.37%
Trend Growth Rate (2021 to Design Year):	-1.48%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

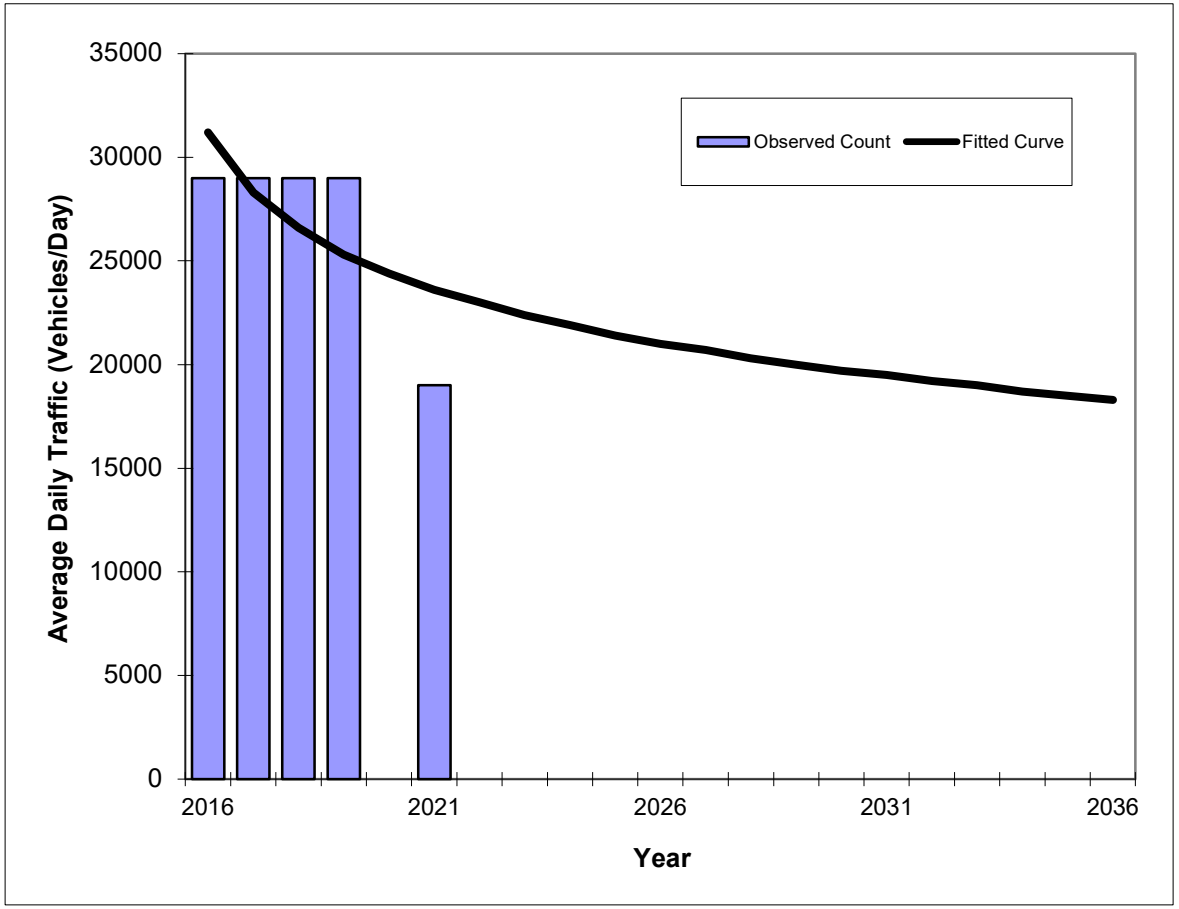
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	29000	31200
2017	29000	28300
2018	29000	26600
2019	29000	25300
2020	n/a	n/a
2021	19000	23600
2022 Opening Year Trend		
2022	N/A	23000
2023 Mid-Year Trend		
2023	N/A	22400
2025 Design Year Trend		
2025	N/A	21400
TRANPLAN Forecasts/Trends		

Trend R-squared:	42.32%
Compounded Annual Historic Growth Rate:	-5.43%
Compounded Growth Rate (2021 to Design Year):	-2.42%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

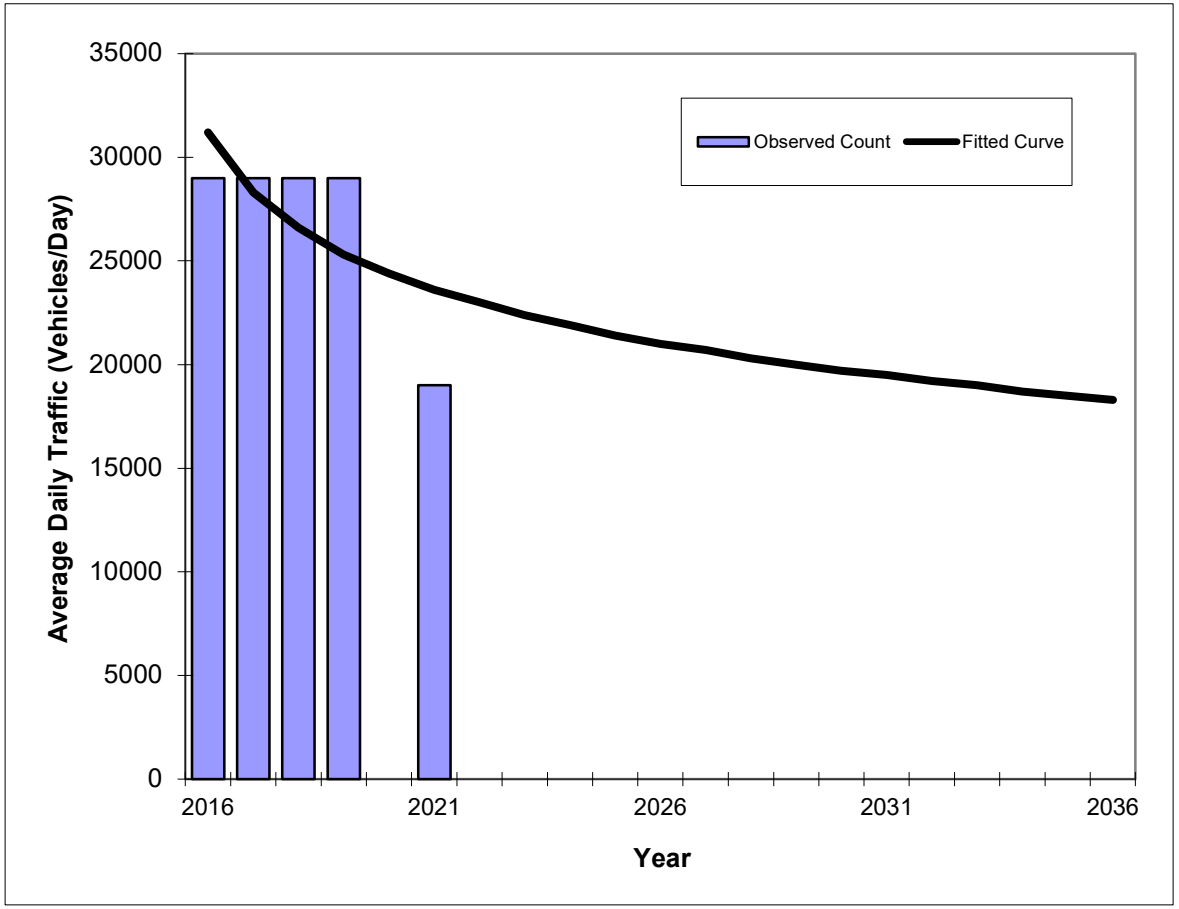
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	29000	31200
2017	29000	28300
2018	29000	26600
2019	29000	25300
2020	n/a	n/a
2021	19000	23600
2022 Opening Year Trend		
2022	N/A	23000
2023 Mid-Year Trend		
2023	N/A	22400
2025 Design Year Trend		
2025	N/A	21400
TRANPLAN Forecasts/Trends		

Trend R-squared:	66.22%
Compounded Annual Historic Growth Rate:	-5.43%
Compounded Growth Rate (2021 to Design Year):	-2.42%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

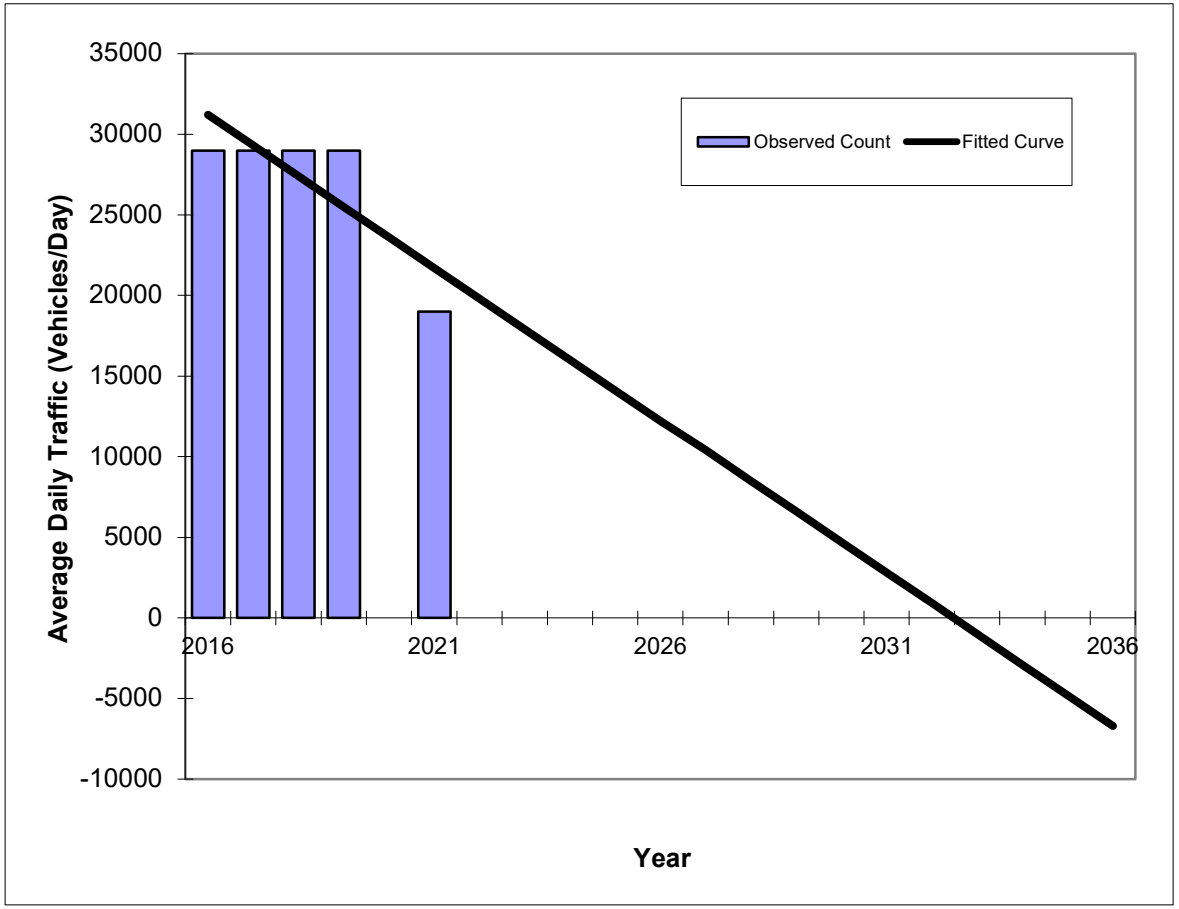
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	29000	31200
2017	29000	29300
2018	29000	27400
2019	29000	25500
2020	n/a	n/a
2021	19000	21700
2022 Opening Year Trend		
2022	N/A	19800
2023 Mid-Year Trend		
2023	N/A	17900
2025 Design Year Trend		
2025	N/A	14100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,892
Trend R-squared:	66.22%
Trend Annual Historic Growth Rate:	-6.09%
Trend Growth Rate (2021 to Design Year):	-8.76%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

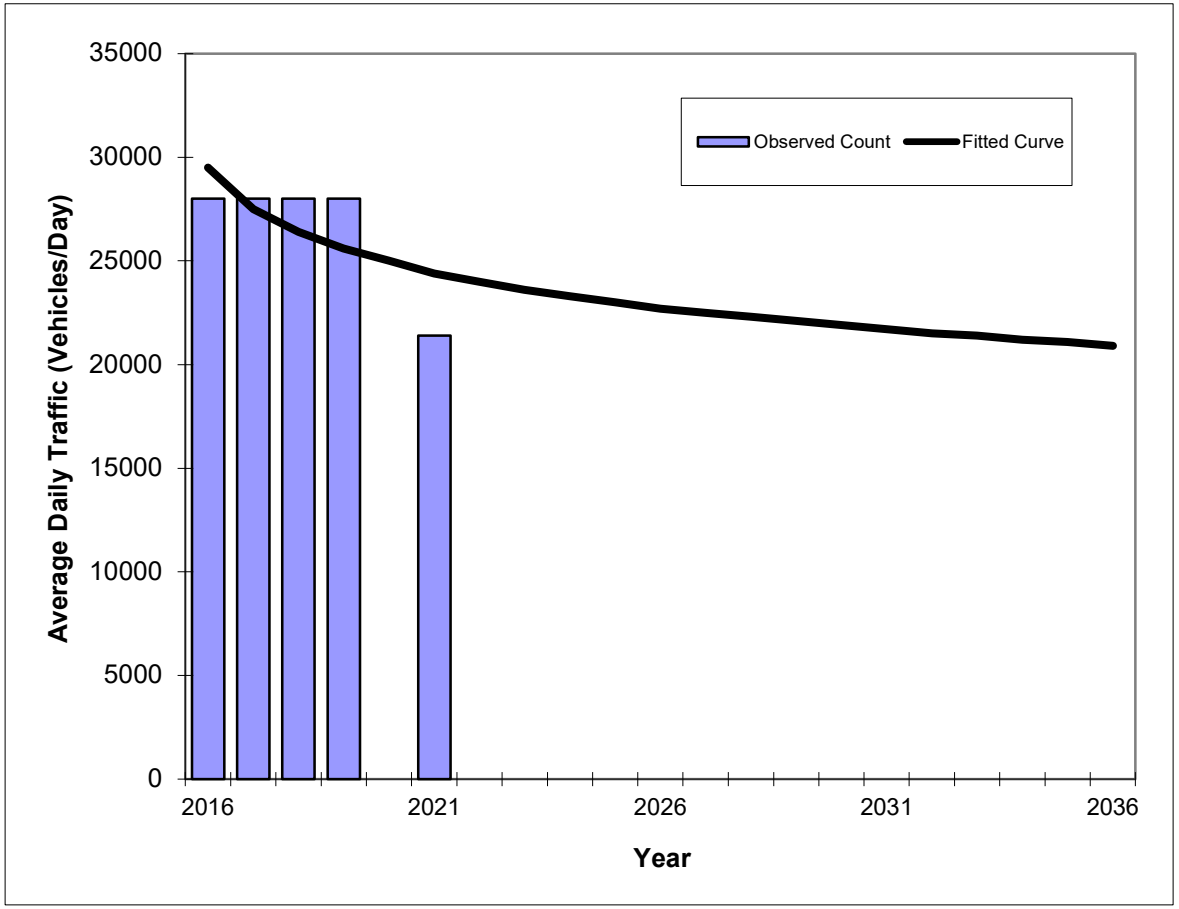
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	29500
2017	28000	27500
2018	28000	26400
2019	28000	25600
2020	n/a	n/a
2021	21400	24400
2022 Opening Year Trend		
2022	N/A	24000
2023 Mid-Year Trend		
2023	N/A	23600
2025 Design Year Trend		
2025	N/A	23000
TRANPLAN Forecasts/Trends		

Trend R-squared:	42.32%
Compounded Annual Historic Growth Rate:	-3.72%
Compounded Growth Rate (2021 to Design Year):	-1.47%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

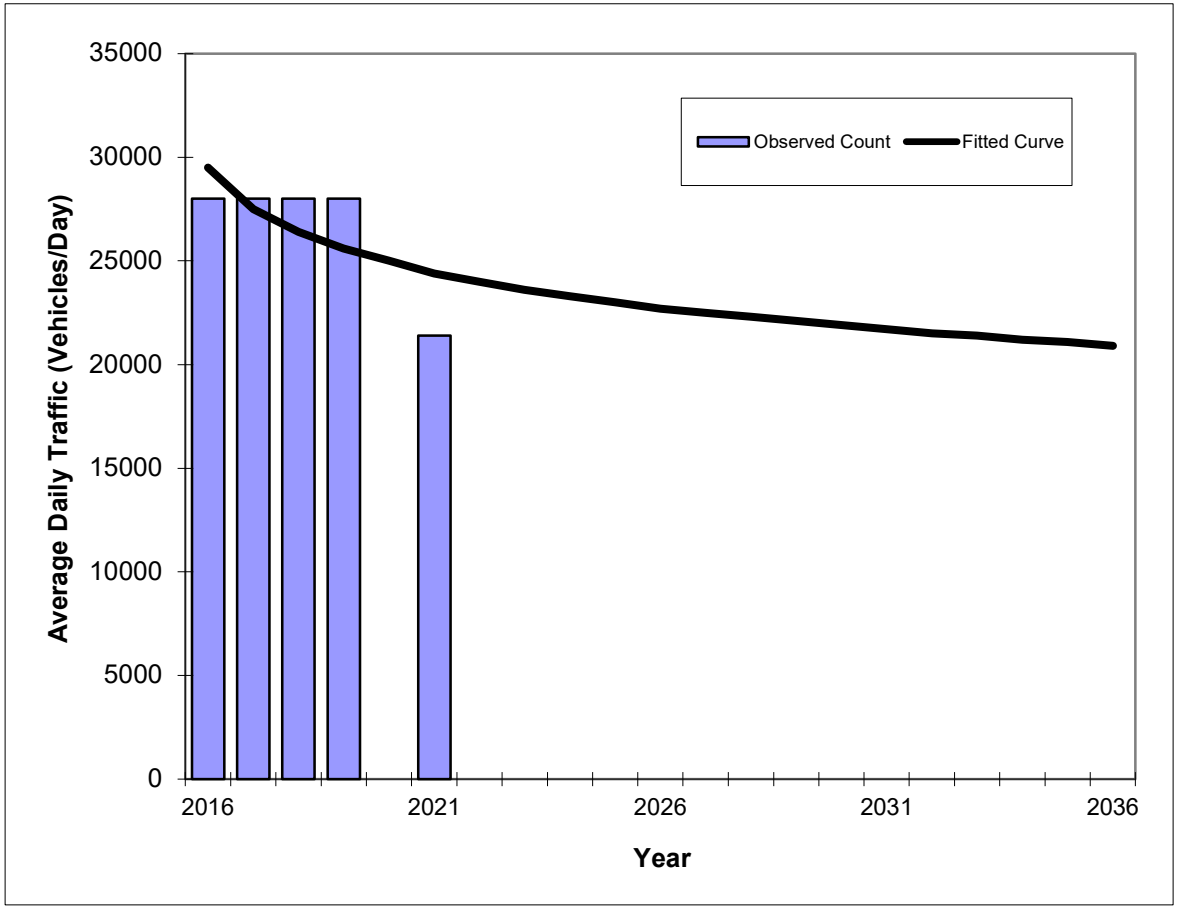
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	29500
2017	28000	27500
2018	28000	26400
2019	28000	25600
2020	n/a	n/a
2021	21400	24400
2022 Opening Year Trend		
2022	N/A	24000
2023 Mid-Year Trend		
2023	N/A	23600
2025 Design Year Trend		
2025	N/A	23000
TRANPLAN Forecasts/Trends		

Trend R-squared:	66.22%
Compounded Annual Historic Growth Rate:	-3.72%
Compounded Growth Rate (2021 to Design Year):	-1.47%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

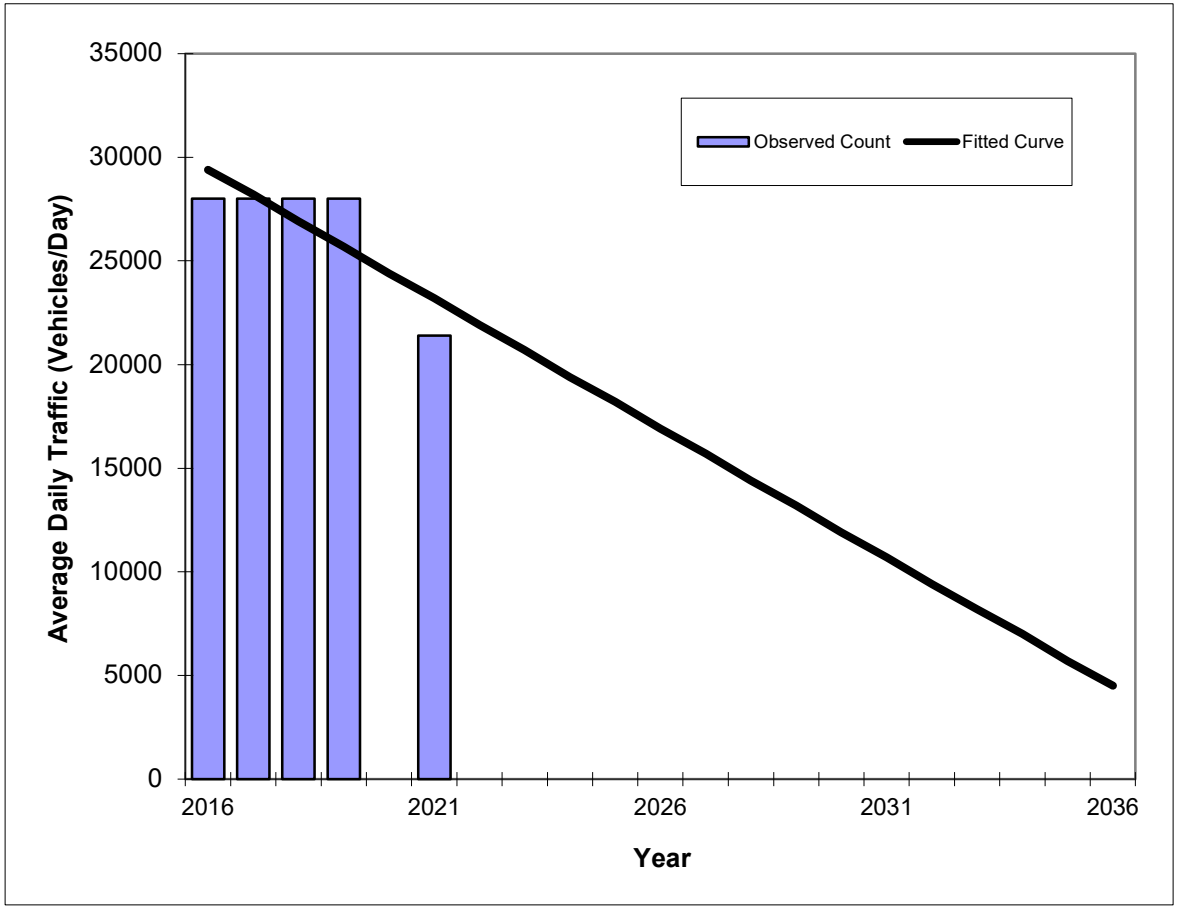
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2016	28000	29400
2017	28000	28200
2018	28000	26900
2019	28000	25700
2020	n/a	n/a
2021	21400	23200
2022 Opening Year Trend		
2022	N/A	21900
2023 Mid-Year Trend		
2023	N/A	20700
2025 Design Year Trend		
2025	N/A	18200
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-1,249
Trend R-squared:	66.22%
Trend Annual Historic Growth Rate:	-4.22%
Trend Growth Rate (2021 to Design Year):	-5.39%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

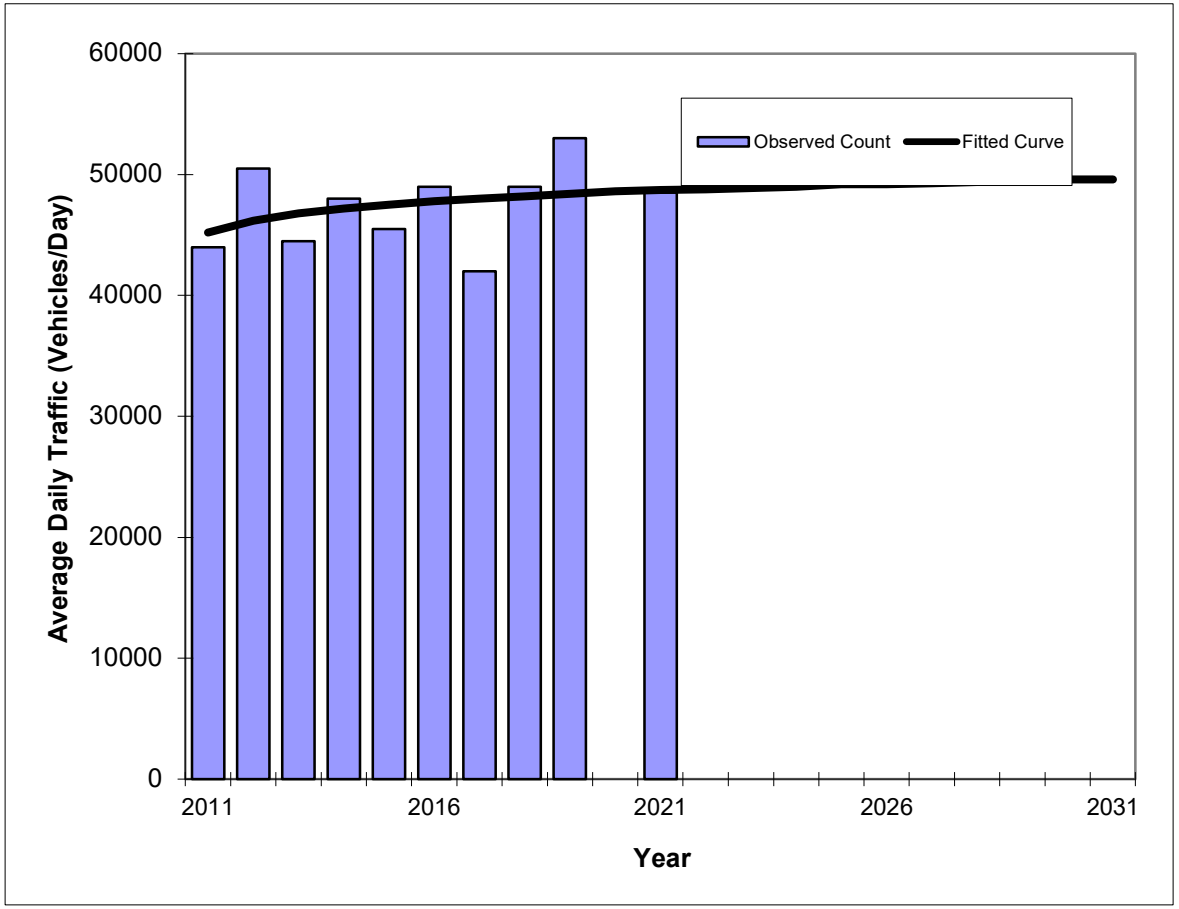
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	1

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	44000	45200
2012	50500	46200
2013	44500	46800
2014	48000	47200
2015	45500	47500
2016	49000	47800
2017	42000	48000
2018	49000	48200
2019	53000	48400
2020	n/a	n/a
2021	48500	48700
2022 Opening Year Trend		
2022	N/A	48800
2023 Mid-Year Trend		
2023	N/A	48900
2025 Design Year Trend		
2025	N/A	49200
TRANPLAN Forecasts/Trends		

Trend R-squared:	10.82%
Compounded Annual Historic Growth Rate:	0.75%
Compounded Growth Rate (2021 to Design Year):	0.26%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

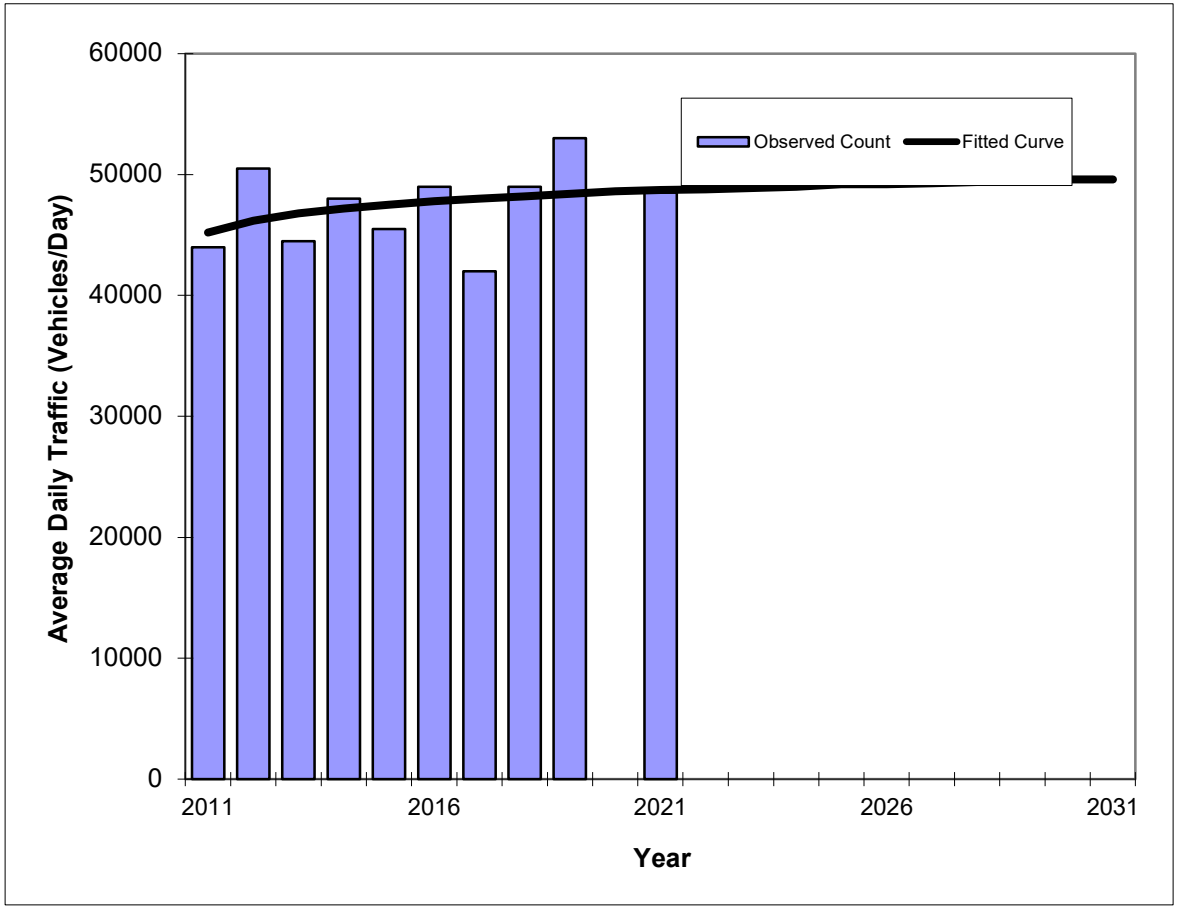
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	1

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	44000	45200
2012	50500	46200
2013	44500	46800
2014	48000	47200
2015	45500	47500
2016	49000	47800
2017	42000	48000
2018	49000	48200
2019	53000	48400
2020	n/a	n/a
2021	48500	48700
2022 Opening Year Trend		
2022	N/A	48800
2023 Mid-Year Trend		
2023	N/A	48900
2025 Design Year Trend		
2025	N/A	49200
TRANPLAN Forecasts/Trends		

Trend R-squared:	12.09%
Compounded Annual Historic Growth Rate:	0.75%
Compounded Growth Rate (2021 to Design Year):	0.26%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

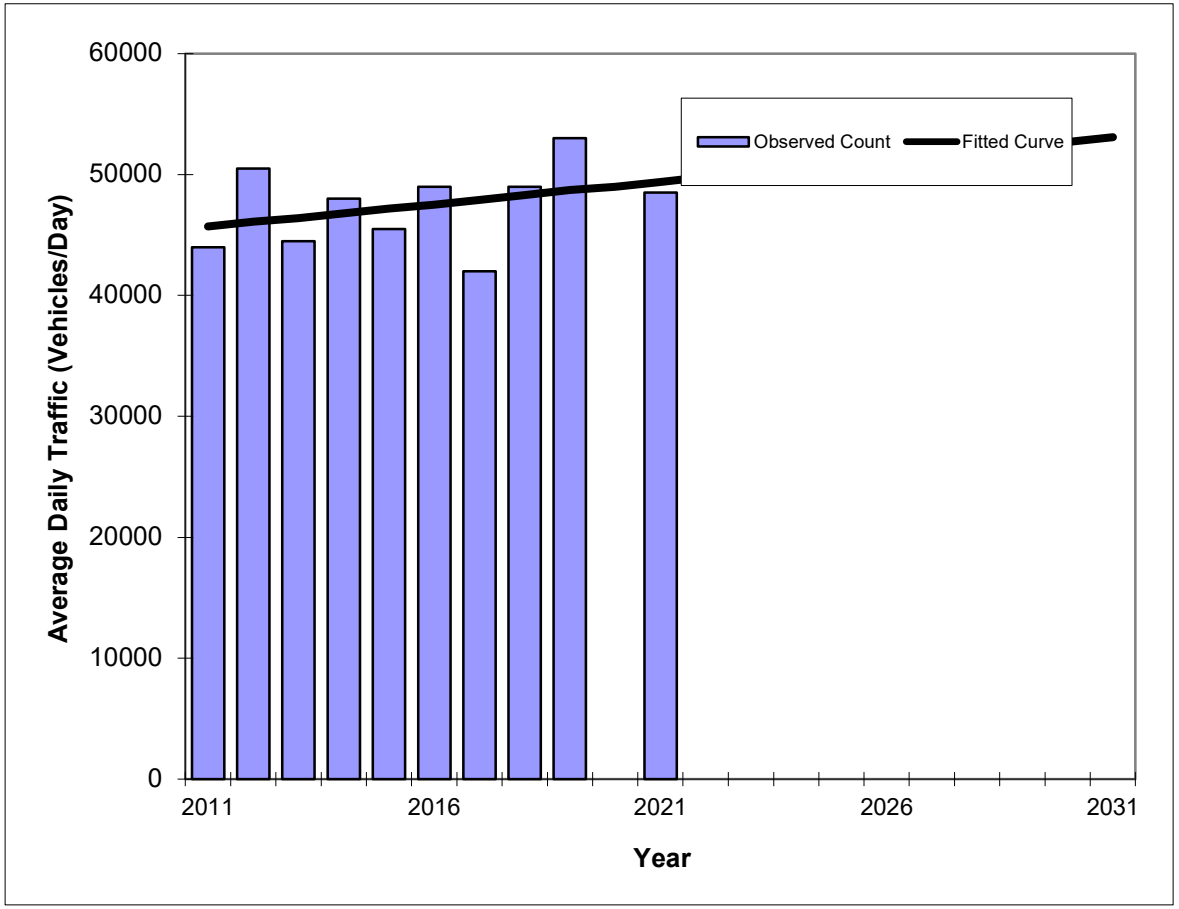
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- E OF ANDREWS AVE

FIN#	0
Location	1

County:	BROWARD
Station #:	0022
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	44000	45700
2012	50500	46100
2013	44500	46400
2014	48000	46800
2015	45500	47200
2016	49000	47500
2017	42000	47900
2018	49000	48300
2019	53000	48700
2020	n/a	n/a
2021	48500	49400
2022 Opening Year Trend		
2022	N/A	49800
2023 Mid-Year Trend		
2023	N/A	50100
2025 Design Year Trend		
2025	N/A	50900
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	369
Trend R-squared:	12.53%
Trend Annual Historic Growth Rate:	0.81%
Trend Growth Rate (2021 to Design Year):	0.76%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

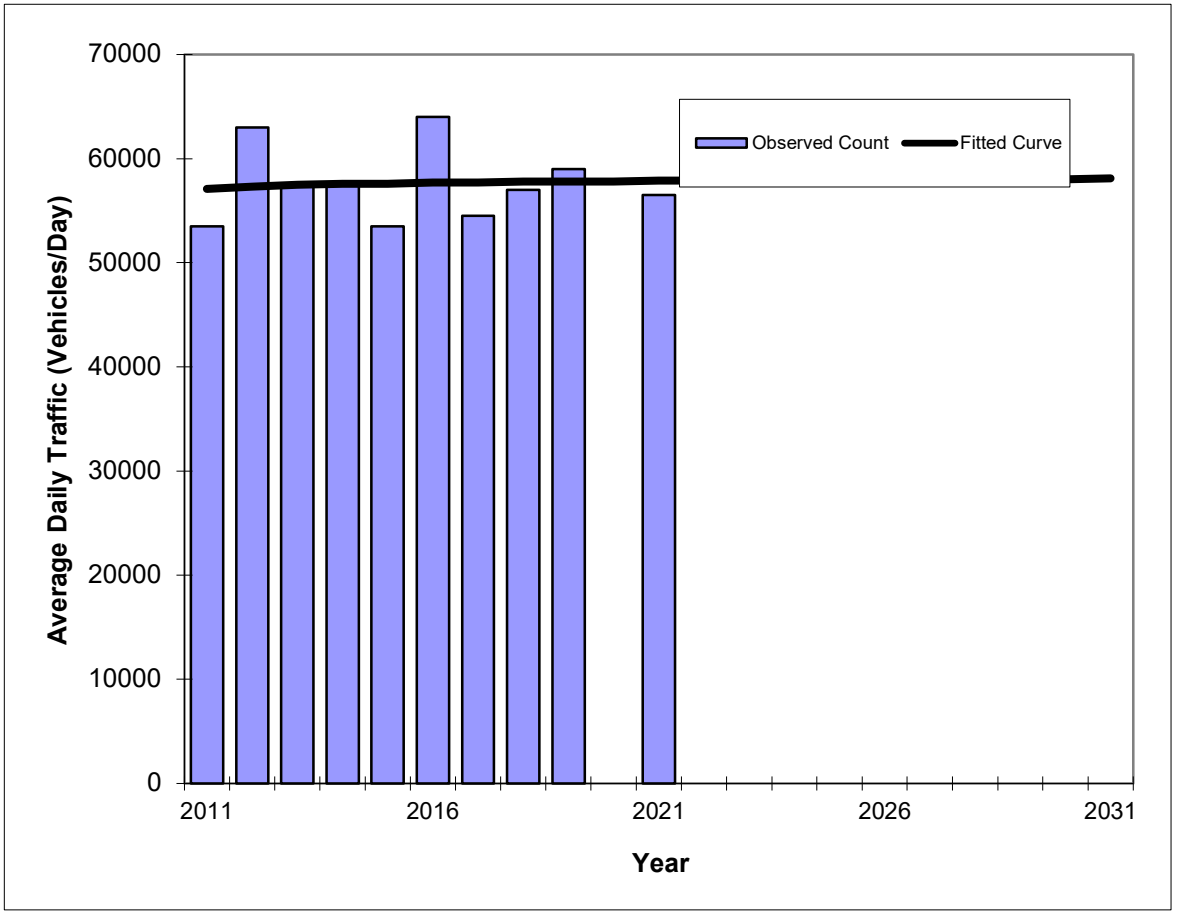
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	2

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	53500	57100
2012	63000	57300
2013	57500	57500
2014	57500	57600
2015	53500	57600
2016	64000	57700
2017	54500	57700
2018	57000	57800
2019	59000	57800
2020	n/a	n/a
2021	56500	57900
2022 Opening Year Trend		
2022	N/A	57900
2023 Mid-Year Trend		
2023	N/A	57900
2025 Design Year Trend		
2025	N/A	58000
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.40%
Compounded Annual Historic Growth Rate:	0.14%
Compounded Growth Rate (2021 to Design Year):	0.04%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

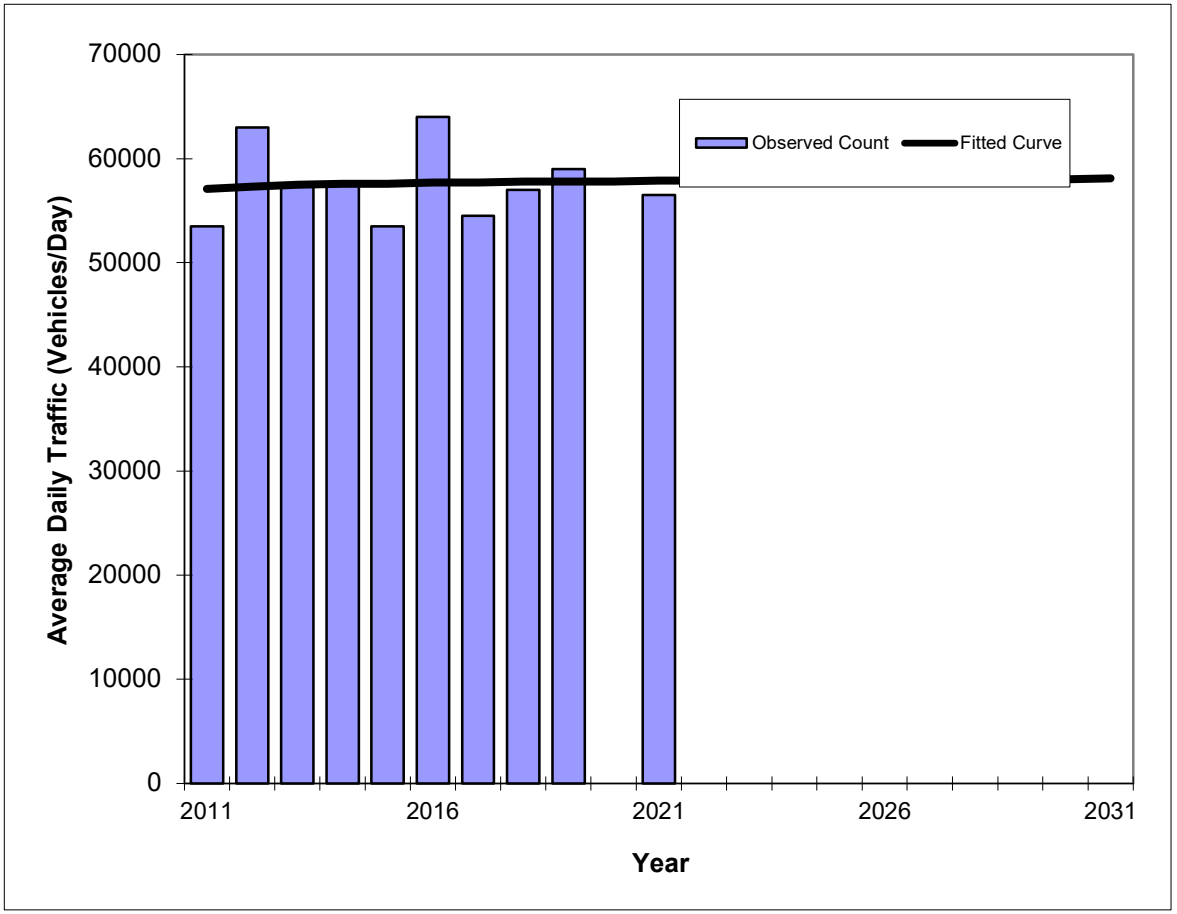
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	2

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	53500	57100
2012	63000	57300
2013	57500	57500
2014	57500	57600
2015	53500	57600
2016	64000	57700
2017	54500	57700
2018	57000	57800
2019	59000	57800
2020	n/a	n/a
2021	56500	57900
2022 Opening Year Trend		
2022	N/A	57900
2023 Mid-Year Trend		
2023	N/A	57900
2025 Design Year Trend		
2025	N/A	58000
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.01%
Compounded Annual Historic Growth Rate:	0.14%
Compounded Growth Rate (2021 to Design Year):	0.04%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

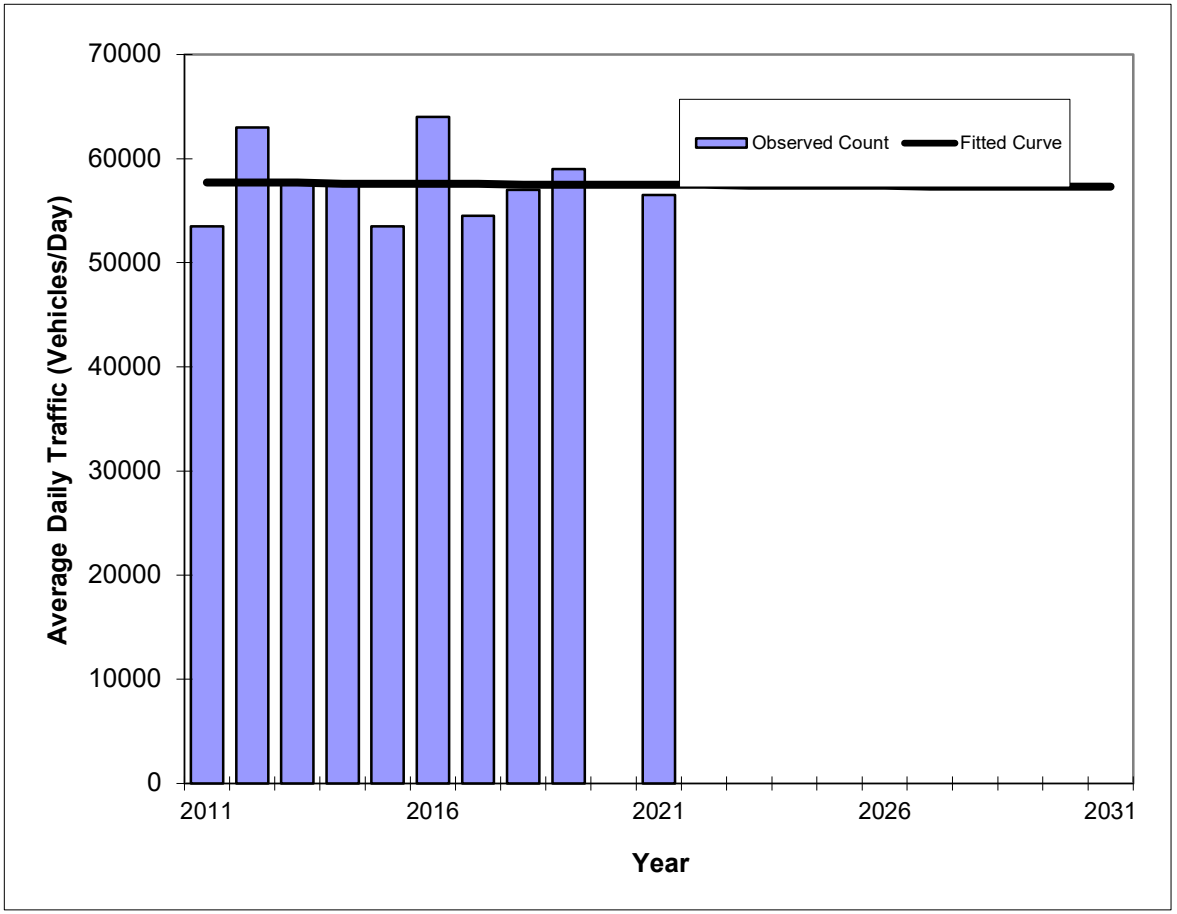
Exhibit F

Traffic Trends - V03.a

SR 816/OAKLAND PARK BLVD -- W OF ANDREWS AVE

FIN#	0
Location	2

County:	BROWARD
Station #:	5139
Highway:	SR 816/OAKLAND PARK BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
2011	53500	57700
2012	63000	57700
2013	57500	57700
2014	57500	57600
2015	53500	57600
2016	64000	57600
2017	54500	57600
2018	57000	57500
2019	59000	57500
2020	n/a	n/a
2021	56500	57500
2022 Opening Year Trend		
2022	N/A	57500
2023 Mid-Year Trend		
2023	N/A	57400
2025 Design Year Trend		
2025	N/A	57400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-23
Trend R-squared:	0.04%
Trend Annual Historic Growth Rate:	-0.03%
Trend Growth Rate (2021 to Design Year):	-0.04%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

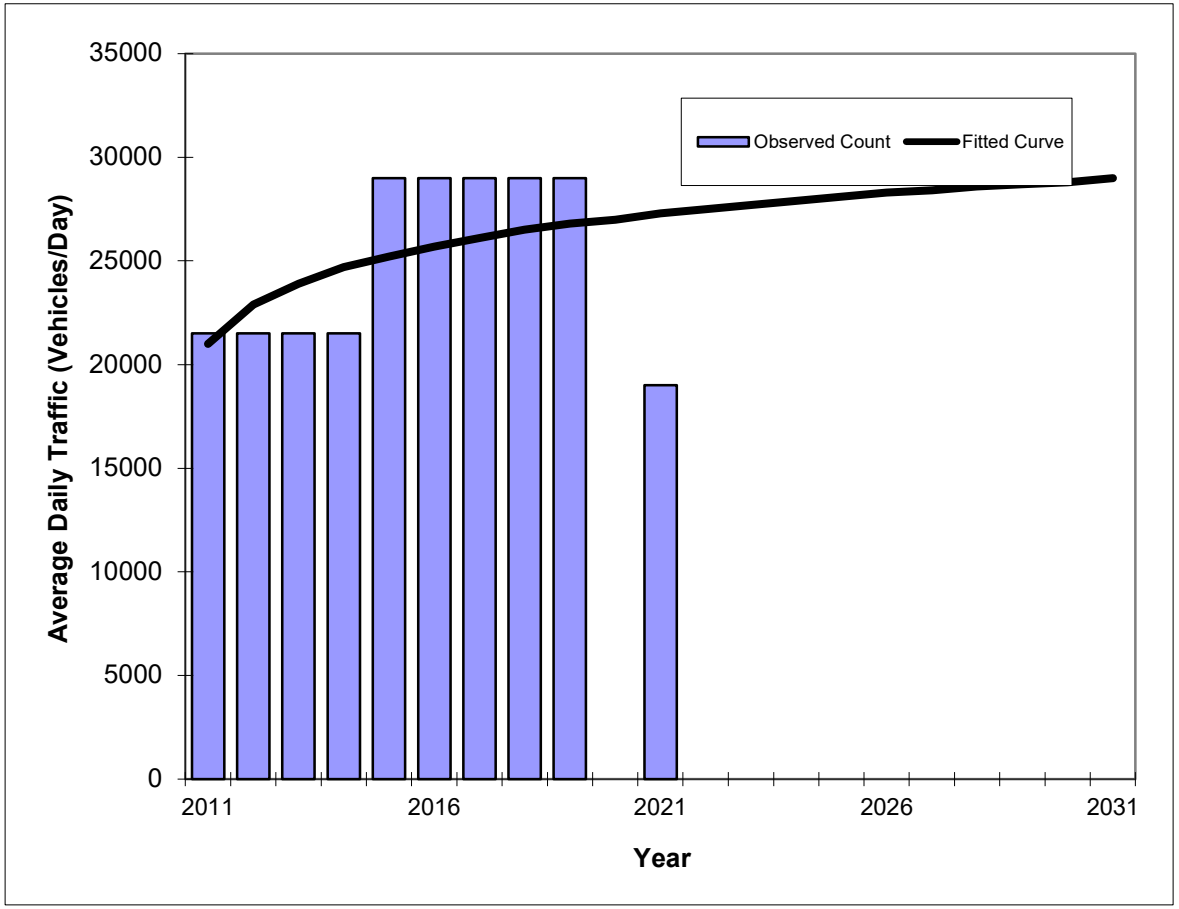
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	21500	21000
2012	21500	22900
2013	21500	23900
2014	21500	24700
2015	29000	25200
2016	29000	25700
2017	29000	26100
2018	29000	26500
2019	29000	26800
2020	N/A	N/A
2021	19000	27300
2022 Opening Year Trend		
2022	N/A	27500
2023 Mid-Year Trend		
2023	N/A	27700
2025 Design Year Trend		
2025	N/A	28100
TRANPLAN Forecasts/Trends		

Trend R-squared:	20.46%
Compounded Annual Historic Growth Rate:	2.66%
Compounded Growth Rate (2021 to Design Year):	0.72%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

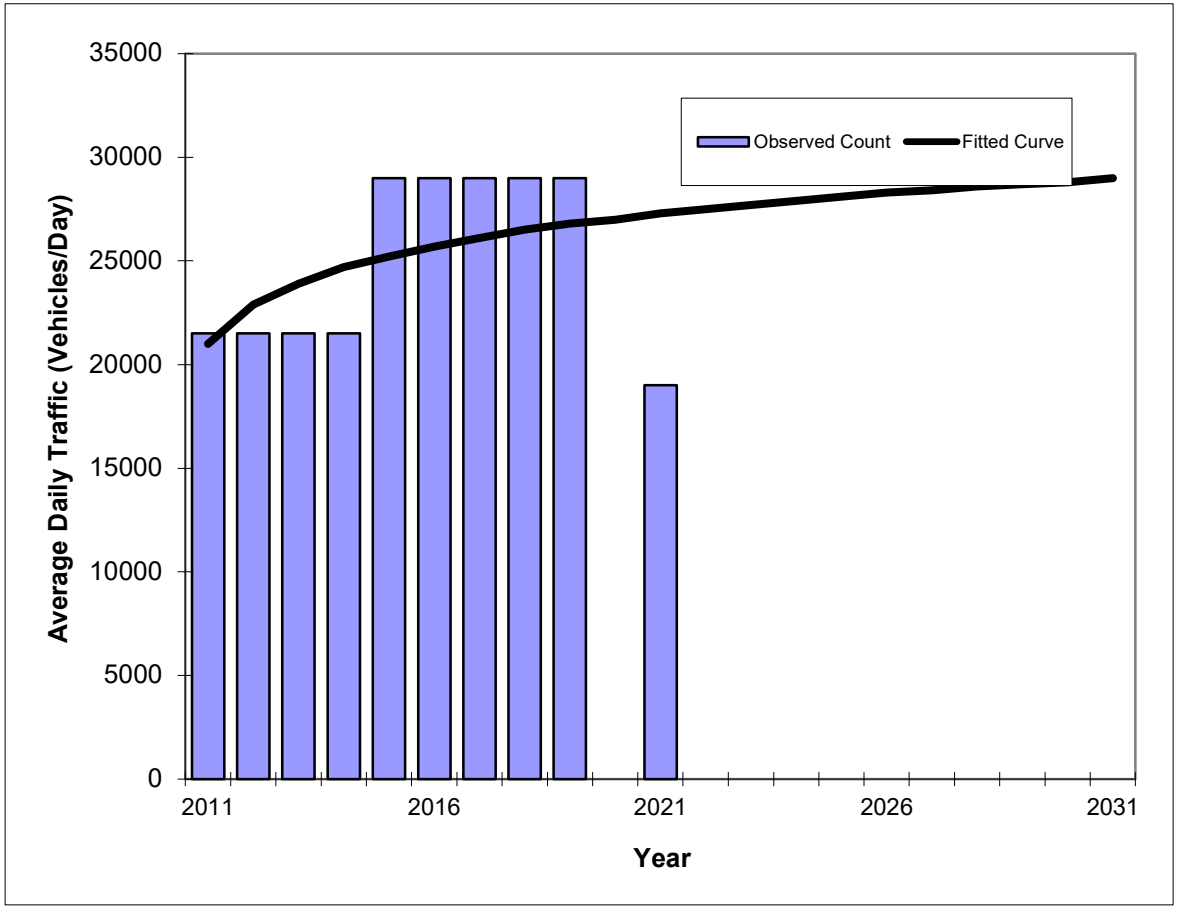
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	21500	21000
2012	21500	22900
2013	21500	23900
2014	21500	24700
2015	29000	25200
2016	29000	25700
2017	29000	26100
2018	29000	26500
2019	29000	26800
2020	N/A	N/A
2021	19000	27300
2022 Opening Year Trend		
2022	N/A	27500
2023 Mid-Year Trend		
2023	N/A	27700
2025 Design Year Trend		
2025	N/A	28100
TRANPLAN Forecasts/Trends		

Trend R-squared:	8.03%
Compounded Annual Historic Growth Rate:	2.66%
Compounded Growth Rate (2021 to Design Year):	0.72%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

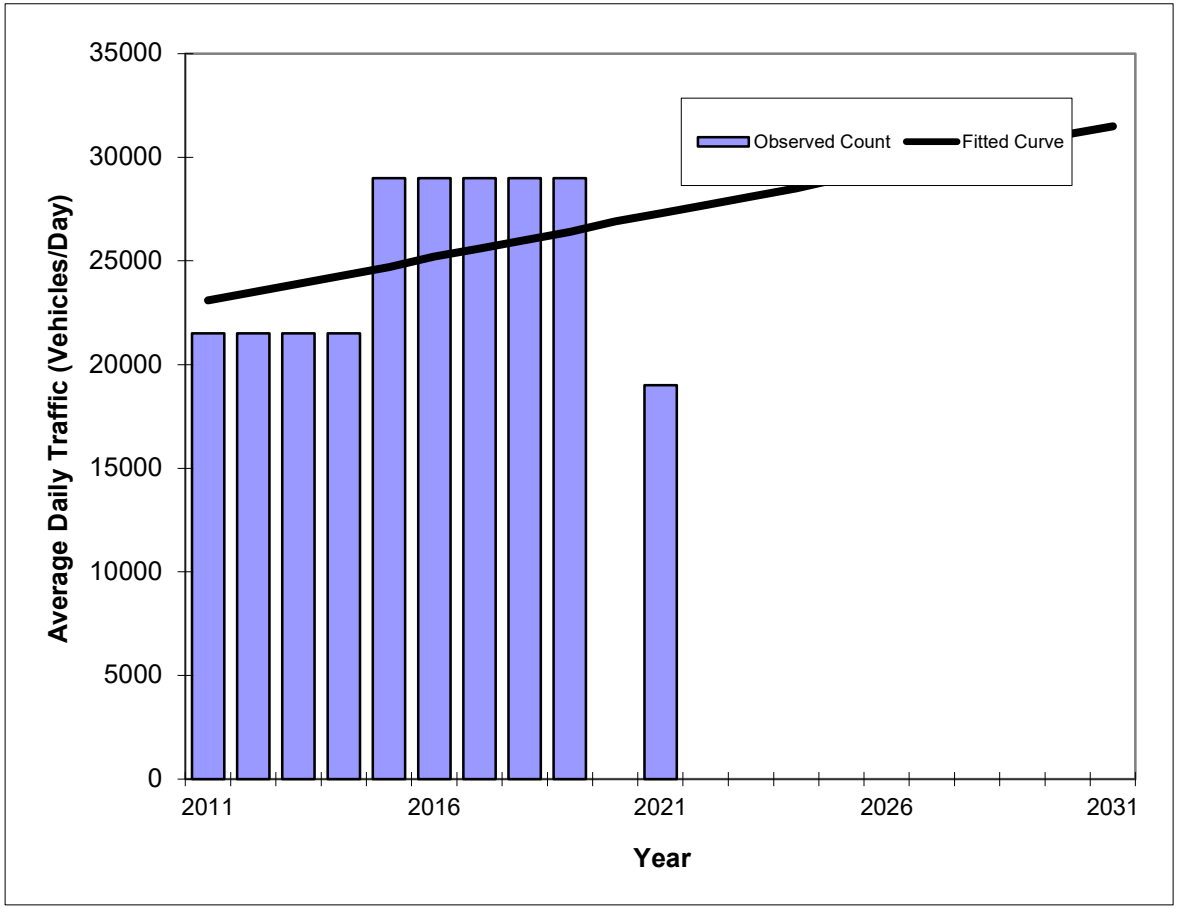
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- N OF OAKLAND PARK BLVD

FIN#	0
Location	3

County:	BROWARD
Station #:	7446
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	21500	23100
2012	21500	23500
2013	21500	23900
2014	21500	24300
2015	29000	24700
2016	29000	25200
2017	29000	25600
2018	29000	26000
2019	29000	26400
2020	N/A	N/A
2021	19000	27300
2022 Opening Year Trend		
2022	N/A	27700
2023 Mid-Year Trend		
2023	N/A	28100
2025 Design Year Trend		
2025	N/A	29000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	422
Trend R-squared:	9.98%
Trend Annual Historic Growth Rate:	1.82%
Trend Growth Rate (2021 to Design Year):	1.56%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

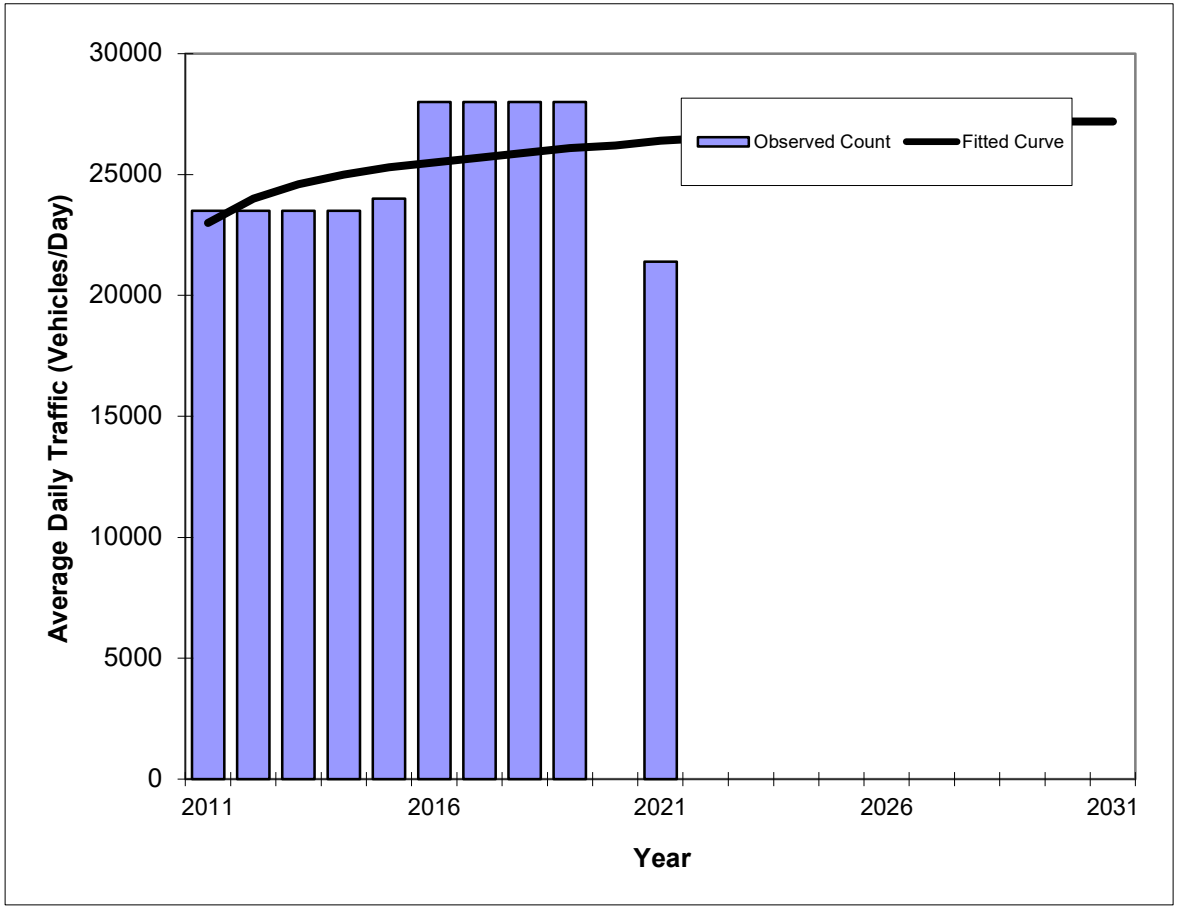
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	23500	23000
2012	23500	24000
2013	23500	24600
2014	23500	25000
2015	24000	25300
2016	28000	25500
2017	28000	25700
2018	28000	25900
2019	28000	26100
2020	N/A	N/A
2021	21400	26400
2022 Opening Year Trend		
2022	N/A	26500
2023 Mid-Year Trend		
2023	N/A	26600
2025 Design Year Trend		
2025	N/A	26800
TRANPLAN Forecasts/Trends		

Trend R-squared:	16.25%
Compounded Annual Historic Growth Rate:	1.39%
Compounded Growth Rate (2021 to Design Year):	0.38%
Printed:	22-Aug-22

Decaying Exponential Growth Option

***Axle-Adjusted**

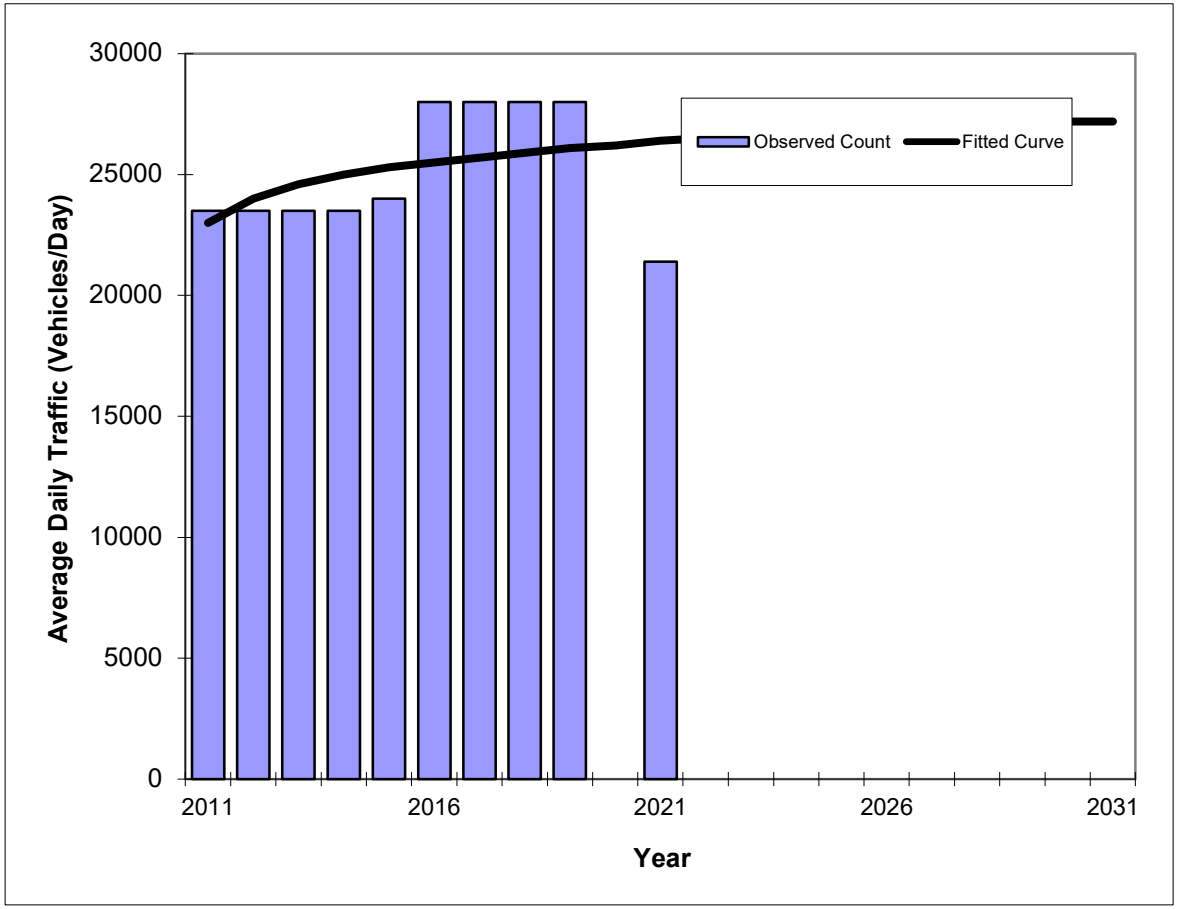
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	23500	23000
2012	23500	24000
2013	23500	24600
2014	23500	25000
2015	24000	25300
2016	28000	25500
2017	28000	25700
2018	28000	25900
2019	28000	26100
2020	N/A	N/A
2021	21400	26400
2022 Opening Year Trend		
2022	N/A	26500
2023 Mid-Year Trend		
2023	N/A	26600
2025 Design Year Trend		
2025	N/A	26800
TRANPLAN Forecasts/Trends		

Trend R-squared:	7.74%
Compounded Annual Historic Growth Rate:	1.39%
Compounded Growth Rate (2021 to Design Year):	0.38%
Printed:	22-Aug-22

Exponential Growth Option

***Axle-Adjusted**

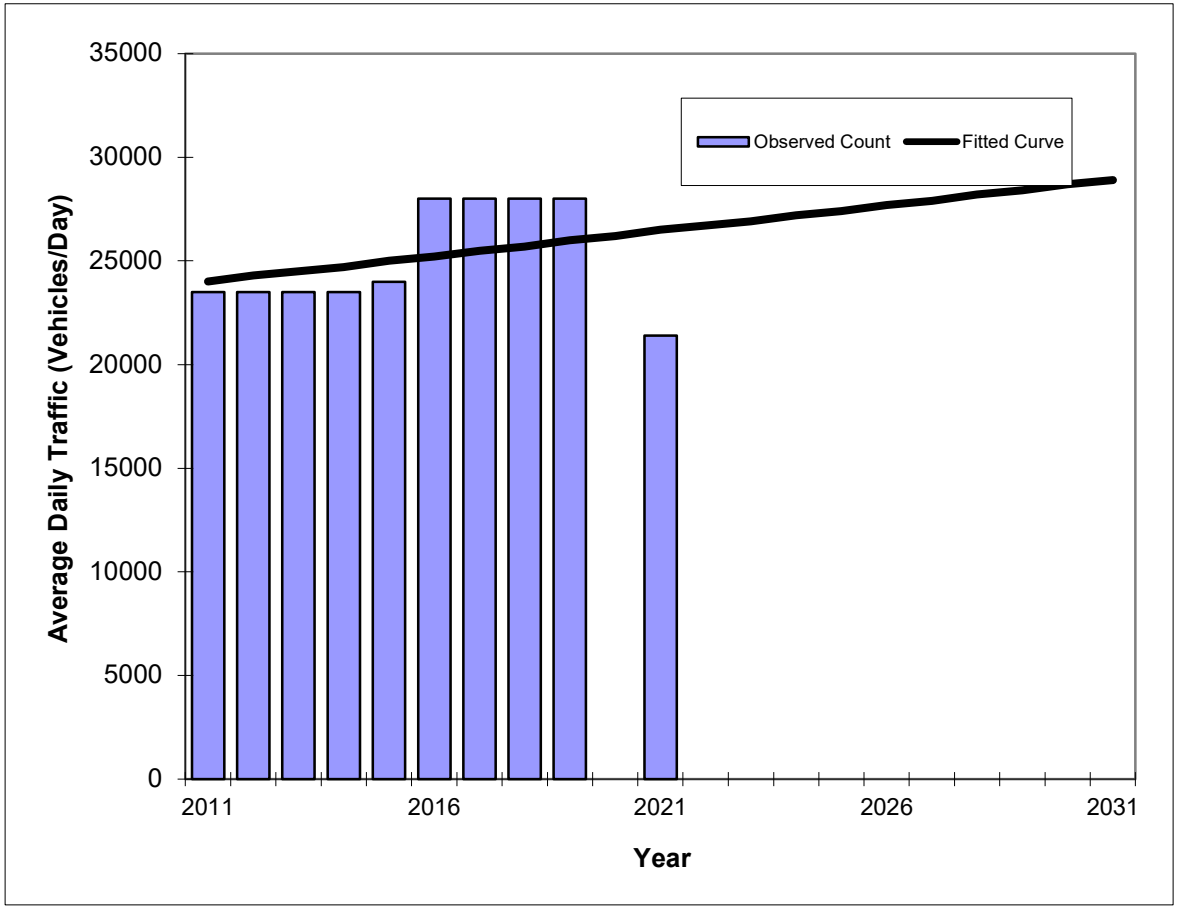
Exhibit F

Traffic Trends - V03.a

ANDREWS AVE -- S OF OAKLAND PARK BLVD

FIN#	0
Location	4

County:	BROWARD
Station #:	7448
Highway:	ANDREWS AVE



Year	Traffic (ADT/AADT) Count*	Trend**
2011	23500	24000
2012	23500	24300
2013	23500	24500
2014	23500	24700
2015	24000	25000
2016	28000	25200
2017	28000	25500
2018	28000	25700
2019	28000	26000
2020	N/A	N/A
2021	21400	26500
2022 Opening Year Trend		
2022	N/A	26700
2023 Mid-Year Trend		
2023	N/A	26900
2025 Design Year Trend		
2025	N/A	27400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	244
Trend R-squared:	9.37%
Trend Annual Historic Growth Rate:	1.04%
Trend Growth Rate (2021 to Design Year):	0.85%
Printed:	22-Aug-22

Straight Line Growth Option

***Axle-Adjusted**

Exhibit F

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8601 CEN.-W OF US1 TO SR7

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	1.04	1.07
2	01/03/2021 - 01/09/2021	1.05	1.08
3	01/10/2021 - 01/16/2021	1.06	1.09
4	01/17/2021 - 01/23/2021	1.05	1.08
5	01/24/2021 - 01/30/2021	1.04	1.07
6	01/31/2021 - 02/06/2021	1.03	1.06
7	02/07/2021 - 02/13/2021	1.02	1.05
8	02/14/2021 - 02/20/2021	1.01	1.04
9	02/21/2021 - 02/27/2021	1.00	1.03
10	02/28/2021 - 03/06/2021	0.99	1.02
*11	03/07/2021 - 03/13/2021	0.98	1.01
*12	03/14/2021 - 03/20/2021	0.97	1.00
*13	03/21/2021 - 03/27/2021	0.96	0.99
*14	03/28/2021 - 04/03/2021	0.96	0.99
*15	04/04/2021 - 04/10/2021	0.96	0.99
*16	04/11/2021 - 04/17/2021	0.96	0.99
*17	04/18/2021 - 04/24/2021	0.96	0.99
*18	04/25/2021 - 05/01/2021	0.96	0.99
*19	05/02/2021 - 05/08/2021	0.96	0.99
*20	05/09/2021 - 05/15/2021	0.97	1.00
*21	05/16/2021 - 05/22/2021	0.97	1.00
*22	05/23/2021 - 05/29/2021	0.98	1.01
*23	05/30/2021 - 06/05/2021	0.99	1.02
24	06/06/2021 - 06/12/2021	1.00	1.03
25	06/13/2021 - 06/19/2021	1.01	1.04
26	06/20/2021 - 06/26/2021	1.00	1.03
27	06/27/2021 - 07/03/2021	1.00	1.03
28	07/04/2021 - 07/10/2021	1.00	1.03
29	07/11/2021 - 07/17/2021	1.00	1.03
30	07/18/2021 - 07/24/2021	1.00	1.03
31	07/25/2021 - 07/31/2021	1.00	1.03
32	08/01/2021 - 08/07/2021	1.00	1.03
33	08/08/2021 - 08/14/2021	1.00	1.03
34	08/15/2021 - 08/21/2021	1.00	1.03
35	08/22/2021 - 08/28/2021	1.01	1.04
36	08/29/2021 - 09/04/2021	1.02	1.05
37	09/05/2021 - 09/11/2021	1.03	1.06
38	09/12/2021 - 09/18/2021	1.04	1.07
39	09/19/2021 - 09/25/2021	1.03	1.06
40	09/26/2021 - 10/02/2021	1.02	1.05
41	10/03/2021 - 10/09/2021	1.01	1.04
42	10/10/2021 - 10/16/2021	1.00	1.03
43	10/17/2021 - 10/23/2021	1.01	1.04
44	10/24/2021 - 10/30/2021	1.01	1.04
45	10/31/2021 - 11/06/2021	1.02	1.05
46	11/07/2021 - 11/13/2021	1.02	1.05
47	11/14/2021 - 11/20/2021	1.03	1.06
48	11/21/2021 - 11/27/2021	1.03	1.06
49	11/28/2021 - 12/04/2021	1.03	1.06
50	12/05/2021 - 12/11/2021	1.03	1.06
51	12/12/2021 - 12/18/2021	1.04	1.07
52	12/19/2021 - 12/25/2021	1.05	1.08
53	12/26/2021 - 12/31/2021	1.06	1.09

* PEAK SEASON

ATTACHMENT D

Future Turning Movement Volumes

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Andrews Avenue
AM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			Oakland Park Boulevard Eastbound			Oakland Park Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (8/16/2022)	267	557	142	88	667	148	183	1,431	233	120	1,009	81
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2022 Peak Season Traffic	275	574	146	91	687	152	188	1,474	240	124	1,039	83
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	285	595	152	94	713	158	196	1,529	249	128	1,078	87
The Ave	25	8	22	3								
2025 Total Traffic	**310**	**603**	**174**	**97**	**713**	**158**	**196**	**1,529**	**249**	**128**	**1,078**	**87**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Andrews Avenue
PM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			Oakland Park Boulevard Eastbound			Oakland Park Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (8/16/2022)	303	732	132	80	567	128	252	1,014	235	194	1,321	105
Season Adjustment Factor	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
2022 Peak Season Traffic	312	754	136	82	584	132	260	1,044	242	200	1,361	108
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	324	782	141	86	606	137	269	1,084	251	207	1,412	112
The Ave	14	5	12	7								
2025 Total Traffic	**338**	**787**	**153**	**93**	**606**	**137**	**269**	**1,084**	**251**	**207**	**1,412**	**112**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Powerline Road
AM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			Oakland Park Boulevard Eastbound			Oakland Park Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	366	515	185	191	530	184	187	1,754	167	99	1,205	134
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	392	551	198	204	567	197	200	1,877	179	106	1,289	143
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	406	572	205	212	588	204	208	1,947	185	110	1,338	149
The Ave									9		25	
2025 Total Traffic	**406**	**572**	**205**	**212**	**588**	**204**	**208**	**1,947**	**194**	**110**	**1,363**	**149**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Powerline Road
PM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			Oakland Park Boulevard Eastbound			Oakland Park Boulevard Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	341	528	128	167	584	151	205	1,575	267	126	1,505	137
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	365	565	137	179	625	162	219	1,685	286	135	1,610	147
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	379	586	142	185	648	168	228	1,749	296	140	1,671	152
The Ave									21		14	
2025 Total Traffic	**379**	**586**	**142**	**185**	**648**	**168**	**228**	**1,749**	**317**	**140**	**1,685**	**152**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Powerline Road and NE 29 Street
AM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			NE 29 Street Eastbound			NE 29 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	5	897	88	113	705	13	21	6	10	76	8	150
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	5	960	94	121	754	14	22	6	11	81	9	161
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	6	996	98	125	783	14	23	7	11	84	9	167
The Ave				9								
2025 Total Traffic	**6**	**996**	**98**	**134**	**783**	**14**	**23**	**7**	**11**	**84**	**9**	**167**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Powerline Road and NE 29 Street
PM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			NE 29 Street Eastbound			NE 29 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	5	841	46	89	877	29	18	6	10	119	20	138
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	5	900	49	95	938	31	19	6	11	127	21	148
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	6	934	51	99	974	32	20	7	11	132	22	153
The Ave				21								
2025 Total Traffic	**6**	**934**	**51**	**120**	**974**	**32**	**20**	**7**	**11**	**132**	**22**	**153**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Andrews Avenue and NE 26 Street
AM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			NE 26 Street Eastbound			NE 26 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)		879	120	152	936					129		138
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	0	941	128	163	1,002	0	0	0	0	138	0	148
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	0	976	133	169	1,039	0	0	0	0	143	0	153
The Ave		2								8		8
2025 Total Traffic	**0**	**978**	**133**	**169**	**1,039**	**0**	**0**	**0**	**0**	**151**	**0**	**161**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Andrews Avenue and NE 26 Street
PM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			NE 26 Street Eastbound			NE 26 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)		966	143	141	973					220		223
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	0	1,034	153	151	1,041	0	0	0	0	235	0	239
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	0	1,073	159	157	1,080	0	0	0	0	244	0	248
The Ave		7								4		19
2025 Total Traffic	**0**	**1,080**	**159**	**157**	**1,080**	**0**	**0**	**0**	**0**	**248**	**0**	**267**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and NE 6 Avenue
AM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			NE 6 Avenue Eastbound			NE 6 Avenue Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	130	127	54	77	189	49	48	1,459	103	62	956	52
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	139	136	58	82	202	52	51	1,561	110	66	1,023	56
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	144	141	60	85	210	54	53	1,620	114	69	1,061	58
The Ave	6							14	11	5		
2025 Total Traffic	**150**	**141**	**60**	**85**	**210**	**54**	**53**	**1,634**	**125**	**74**	**1,061**	**58**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and NE 6 Avenue
PM Peak Hour

Description	Powerline Road Northbound			Powerline Road Southbound			NE 6 Avenue Eastbound			NE 6 Avenue Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)	123	191	41	94	225	52	59	1,237	152	106	1,344	57
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	132	204	44	101	241	56	63	1,324	163	113	1,438	61
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	137	212	46	104	250	58	66	1,373	169	118	1,492	63
The Ave	12							8	11	12		
2025 Total Traffic	**149**	**212**	**46**	**104**	**250**	**58**	**66**	**1,381**	**180**	**130**	**1,492**	**63**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Andrews Avenue
AM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			Eastbound			Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)		1,017			1,088							
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	0	1,088	0	0	1,164	0	0	0	0	0	0	0
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	0	1,129	0	0	1,208	0	0	0	0	0	0	0
The Ave			19									55
2025 Total Traffic	**0**	**1,129**	**19**	**0**	**1,208**	**0**	**0**	**0**	**0**	**0**	**0**	**55**

TRAFTECH ENGINEERING, INC.

Exhibit F

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Oakland Park Boulevard and Andrews Avenue
PM Peak Hour

Description	Andrews Avenue Northbound			Andrews Avenue Southbound			Eastbound			Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (9/14/2022)		1,189			1,114							
Season Adjustment Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
2022 Peak Season Traffic	0	1,272	0	0	1,192	0	0	0	0	0	0	0
Annual Growth Rate	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
2025 Background Traffic	0	1,320	0	0	1,237	0	0	0	0	0	0	0
The Ave			47									31
2025 Total Traffic	**0**	**1,320**	**47**	**0**	**1,237**	**0**	**0**	**0**	**0**	**0**	**0**	**31**

TRAFTECH ENGINEERING, INC.

ATTACHMENT E

SYNCHRO Analyses

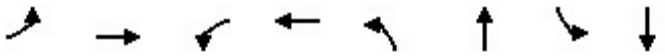
Timings
101: Andrews Avenue & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	188	1474	124	1039	275	574	91	687
Future Volume (vph)	188	1474	124	1039	275	574	91	687
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	44.0	83.0	21.0	60.0	22.0	54.0	22.0	54.0
Total Split (%)	24.4%	46.1%	11.7%	33.3%	12.2%	30.0%	12.2%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	97.5	80.1	86.2	73.8	16.0	51.7	59.2	47.5
Actuated g/C Ratio	0.54	0.44	0.48	0.41	0.09	0.29	0.33	0.26
v/c Ratio	0.66	0.80	0.80	0.57	0.94	0.75	0.48	0.96
Control Delay	33.6	46.5	79.3	87.0	107.7	69.6	44.4	84.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	46.5	79.3	87.0	107.7	69.6	44.4	84.5
LOS	C	D	E	F	F	E	D	F
Approach Delay		45.2		86.3		80.1		80.6
Approach LOS		D		F		F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 110 (61%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 68.6	Intersection LOS: E
Intersection Capacity Utilization 92.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard

Queues
101: Andrews Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	194	1767	128	1157	284	743	94	865
v/c Ratio	0.66	0.80	0.80	0.57	0.94	0.75	0.48	0.96
Control Delay	33.6	46.5	79.3	87.0	107.7	69.6	44.4	84.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	46.5	79.3	87.0	107.7	69.6	44.4	84.5
Queue Length 50th (ft)	115	655	135	503	175	403	72	525
Queue Length 95th (ft)	173	733	m#213	542	#272	535	118	#657
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	455	2202	186	2047	302	985	239	914
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	0.43	0.80	0.69	0.57	0.94	0.75	0.39	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1474	240	124	1039	83	275	574	146	91	687	152
Future Volume (veh/h)	188	1474	240	124	1039	83	275	574	146	91	687	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	194	1520	247	128	1071	86	284	592	151	94	708	157
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	321	2042	331	190	2113	169	305	831	211	235	746	165
Arrive On Green	0.10	0.62	0.62	0.07	0.59	0.59	0.18	0.60	0.60	0.05	0.26	0.26
Sat Flow, veh/h	1767	4392	712	1767	4780	383	3428	2769	704	1767	2854	633
Grp Volume(v), veh/h	194	1168	599	128	756	401	284	376	367	94	437	428
Grp Sat Flow(s),veh/h/ln	1767	1689	1727	1767	1689	1786	1714	1763	1710	1767	1763	1724
Q Serve(g_s), s	10.9	44.0	44.3	7.2	23.7	23.7	14.7	26.8	27.0	7.0	43.8	43.9
Cycle Q Clear(g_c), s	10.9	44.0	44.3	7.2	23.7	23.7	14.7	26.8	27.0	7.0	43.8	43.9
Prop In Lane	1.00		0.41	1.00		0.21	1.00		0.41	1.00		0.37
Lane Grp Cap(c), veh/h	321	1570	803	190	1493	789	305	529	514	235	461	450
V/C Ratio(X)	0.60	0.74	0.75	0.67	0.51	0.51	0.93	0.71	0.71	0.40	0.95	0.95
Avail Cap(c_a), veh/h	563	1570	803	246	1493	789	305	529	514	304	470	460
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	26.8	26.8	32.7	25.6	25.6	73.5	30.5	30.6	46.4	65.3	65.3
Incr Delay (d2), s/veh	1.8	3.2	6.3	3.8	1.0	1.9	34.2	4.4	4.7	1.1	28.7	29.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	17.2	18.3	3.2	9.2	10.0	7.5	10.0	9.8	3.2	23.5	23.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	30.0	33.1	36.5	26.6	27.5	107.6	34.9	35.2	47.5	94.1	94.7
LnGrp LOS	C	C	C	D	C	C	F	C	D	D	F	F
Approach Vol, veh/h		1961			1285			1027			959	
Approach Delay, s/veh		30.7			27.8			55.1			89.8	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	85.6	15.0	60.0	15.3	89.7	22.0	53.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	54.0	16.0	48.0	15.0	77.0	16.0	48.0
Max Q Clear Time (g_c+I1), s	12.9	25.7	9.0	29.0	9.2	46.3	16.7	45.9
Green Ext Time (p_c), s	0.5	9.3	0.1	4.7	0.1	16.8	0.0	1.1

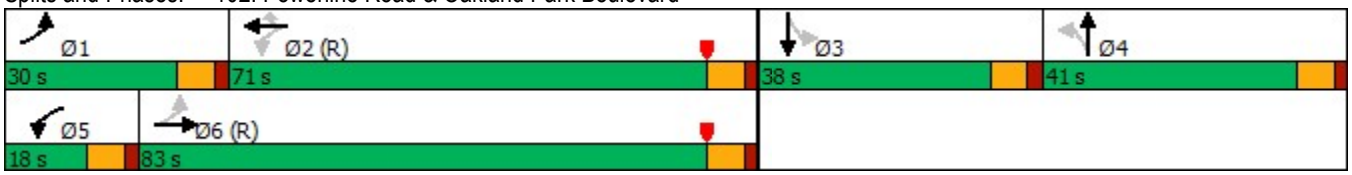
Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	200	1877	106	1289	143	392	551	204	567
Future Volume (vph)	200	1877	106	1289	143	392	551	204	567
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	41.0	41.0	38.0	38.0
Total Split (s)	30.0	83.0	18.0	71.0	71.0	41.0	41.0	38.0	38.0
Total Split (%)	16.7%	46.1%	10.0%	39.4%	39.4%	22.8%	22.8%	21.1%	21.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	93.3	77.2	78.6	68.8	68.8	34.0	34.0	31.0	31.0
Actuated g/C Ratio	0.52	0.43	0.44	0.38	0.38	0.19	0.19	0.17	0.17
v/c Ratio	0.84	0.99	0.80	0.69	0.21	1.92	1.54	2.66	1.33
Control Delay	64.9	67.8	79.3	49.6	5.4	483.4	294.3	805.7	210.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	67.8	79.3	49.6	5.4	483.4	294.3	805.7	210.2
LOS	E	E	E	D	A	F	F	F	F
Approach Delay		67.6		47.5			326.8		335.5
Approach LOS		E		D			F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.66	
Intersection Signal Delay: 156.4	Intersection LOS: F
Intersection Capacity Utilization 111.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	2120	109	1329	147	202	974	210	788
v/c Ratio	0.84	0.99	0.80	0.69	0.21	1.92	1.54	2.66	1.33
Control Delay	64.9	67.8	79.3	49.6	5.4	483.4	294.3	805.7	210.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	67.8	79.3	49.6	5.4	483.4	294.3	805.7	210.2
Queue Length 50th (ft)	154	~931	78	487	0	~424	~615	~214	~621
Queue Length 95th (ft)	255	#1038	#184	562	48	#634	#720	#309	#762
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	288	2136	148	1924	685	105	632	79	594
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	0.72	0.99	0.74	0.69	0.21	1.92	1.54	2.66	1.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	1877	179	106	1289	143	392	551	198	204	567	197
Future Volume (vph)	200	1877	179	106	1289	143	392	551	198	204	567	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4964		1752	5036	1547	1499	4542		3397	3345	
Flt Permitted	0.09	1.00		0.06	1.00	1.00	0.35	0.70		0.13	1.00	
Satd. Flow (perm)	164	4964		107	5036	1547	558	3221		461	3345	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	206	1935	185	109	1329	147	404	568	204	210	585	203
RTOR Reduction (vph)	0	6	0	0	0	91	0	24	0	0	19	0
Lane Group Flow (vph)	206	2114	0	109	1329	56	202	950	0	210	769	0
Confl. Peds. (#/hr)	1		1	1		1	9		3	3		9
Confl. Bikes (#/hr)												1
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	94.0	77.2		78.6	68.8	68.8	34.0	34.0		31.0	31.0	
Effective Green, g (s)	94.0	77.2		78.6	68.8	68.8	34.0	34.0		31.0	31.0	
Actuated g/C Ratio	0.52	0.43		0.44	0.38	0.38	0.19	0.19		0.17	0.17	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	246	2129		136	1924	591	105	608		79	576	
v/s Ratio Prot	c0.08	c0.43		0.04	0.26						0.23	
v/s Ratio Perm	0.35			0.30		0.04	c0.36	0.30		c0.46		
v/c Ratio	0.84	0.99		0.80	0.69	0.10	1.92	1.56		2.66	1.34	
Uniform Delay, d1	42.0	51.1		43.1	46.7	35.6	73.0	73.0		74.5	74.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	20.4	17.9		26.4	2.1	0.3	448.8	261.4		781.1	162.3	
Delay (s)	62.5	69.0		69.5	48.7	36.0	521.8	334.4		855.6	236.8	
Level of Service	E	E		E	D	D	F	F		F	F	
Approach Delay (s)		68.4			49.0			366.6			367.0	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	170.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.55		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	22	6	81	9	5	960	121	754	14
Future Volume (vph)	22	6	81	9	5	960	121	754	14
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	35.0	35.0	35.0	35.0	33.0	33.0	12.0	45.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	41.3%	41.3%	15.0%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.9	9.9	9.9	9.9	43.5	43.5	57.1	57.1	57.1
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.54	0.54	0.71	0.71	0.71
v/c Ratio	0.21	0.09	0.53	0.54	0.02	0.62	0.42	0.34	0.01
Control Delay	34.4	19.2	43.4	11.9	11.2	15.4	8.2	5.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	19.2	43.4	11.9	11.2	15.4	8.2	5.1	0.4
LOS	C	B	D	B	B	B	A	A	A
Approach Delay		27.7		22.1		15.3		5.5	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

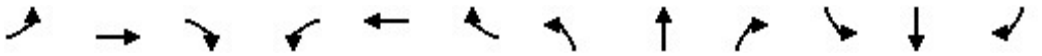
Splits and Phases: 103: NW 29 Street & Powerline Road

Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	24	19	90	189	6	1171	134	838	16
v/c Ratio	0.21	0.09	0.53	0.54	0.02	0.62	0.42	0.34	0.01
Control Delay	34.4	19.2	43.4	11.9	11.2	15.4	8.2	5.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	19.2	43.4	11.9	11.2	15.4	8.2	5.1	0.4
Queue Length 50th (ft)	11	3	43	5	1	191	17	67	0
Queue Length 95th (ft)	31	20	83	58	8	321	41	116	2
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	330	612	498	687	337	1878	322	2501	1130
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	0.07	0.03	0.18	0.28	0.02	0.62	0.42	0.34	0.01

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	6	11	81	9	161	5	960	94	121	754	14
Future Volume (veh/h)	22	6	11	81	9	161	5	960	94	121	754	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	7	12	90	10	179	6	1067	104	134	838	16
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	144	98	167	297	13	239	439	1737	169	361	2392	1060
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.71	0.71	0.07	0.90	0.90
Sat Flow, veh/h	1185	614	1052	1382	84	1501	649	3235	315	1767	3526	1563
Grp Volume(v), veh/h	24	0	19	90	0	189	6	581	590	134	838	16
Grp Sat Flow(s),veh/h/ln	1185	0	1666	1382	0	1585	649	1763	1787	1767	1763	1563
Q Serve(g_s), s	1.6	0.0	0.8	4.7	0.0	9.1	0.2	13.4	13.5	2.5	2.7	0.1
Cycle Q Clear(g_c), s	10.7	0.0	0.8	5.5	0.0	9.1	0.2	13.4	13.5	2.5	2.7	0.1
Prop In Lane	1.00		0.63	1.00		0.95	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	144	0	265	297	0	252	439	946	960	361	2392	1060
V/C Ratio(X)	0.17	0.00	0.07	0.30	0.00	0.75	0.01	0.61	0.61	0.37	0.35	0.02
Avail Cap(c_a), veh/h	385	0	604	578	0	575	439	946	960	376	2392	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	37.2	0.0	28.6	31.0	0.0	32.1	5.3	7.2	7.2	8.3	1.4	1.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	1.7	0.1	3.0	2.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	1.6	0.0	3.5	0.0	4.1	4.2	0.8	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	28.6	31.2	0.0	33.8	5.4	10.2	10.2	8.3	1.4	1.3
LnGrp LOS	D	A	C	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		43			279			1177			988	
Approach Delay, s/veh		33.5			32.9			10.2			2.4	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.3	50.0		18.7		61.3		18.7				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	5.0	26.0		29.0		38.0		29.0				
Max Q Clear Time (g_c+I1), s	4.5	15.5		12.7		4.7		11.1				
Green Ext Time (p_c), s	0.0	5.6		0.1		7.0		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		10.0	
HCM 6th LOS		B	

Notes

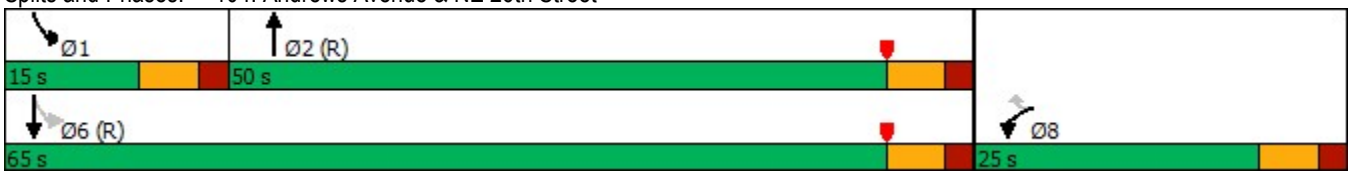
User approved pedestrian interval to be less than phase max green.

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	138	148	941	163	1002
Future Volume (vph)	138	148	941	163	1002
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.6	11.6	53.8	66.4	66.4
Actuated g/C Ratio	0.13	0.13	0.60	0.74	0.74
v/c Ratio	0.63	0.45	0.53	0.46	0.40
Control Delay	48.9	10.5	12.5	7.3	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	10.5	12.5	7.3	7.4
LOS	D	B	B	A	A
Approach Delay	29.0		12.5		7.4
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street



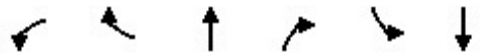
Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	141	151	1091	166	1022
v/c Ratio	0.63	0.45	0.53	0.46	0.40
Control Delay	48.9	10.5	12.5	7.3	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	10.5	12.5	7.3	7.4
Queue Length 50th (ft)	77	0	171	33	260
Queue Length 95th (ft)	130	50	278	m57	m422
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	450	2059	396	2586
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.34	0.53	0.42	0.40

Intersection Summary

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

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	138	148	941	128	163	1002
Future Volume (veh/h)	138	148	941	128	163	1002
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	141	151	960	131	166	1022
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	211	188	1949	266	451	2635
Arrive On Green	0.12	0.12	0.83	0.83	0.07	0.99
Sat Flow, veh/h	1767	1572	3198	424	1767	3618
Grp Volume(v), veh/h	141	151	545	546	166	1022
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1766	1767	1763
Q Serve(g_s), s	6.9	8.4	7.8	7.8	2.8	0.3
Cycle Q Clear(g_c), s	6.9	8.4	7.8	7.8	2.8	0.3
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	211	188	1106	1108	451	2635
V/C Ratio(X)	0.67	0.81	0.49	0.49	0.37	0.39
Avail Cap(c_a), veh/h	373	332	1106	1108	534	2635
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	38.6	3.4	3.4	5.1	0.1
Incr Delay (d2), s/veh	1.4	3.1	1.6	1.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.4	2.3	2.3	0.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.3	41.7	5.0	5.0	5.3	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	292		1091			1188
Approach Delay, s/veh	40.5		5.0			1.2
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.8	62.5			73.3	16.7
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	4.8	9.8			2.3	10.4
Green Ext Time (p_c), s	0.1	9.1			9.8	0.3

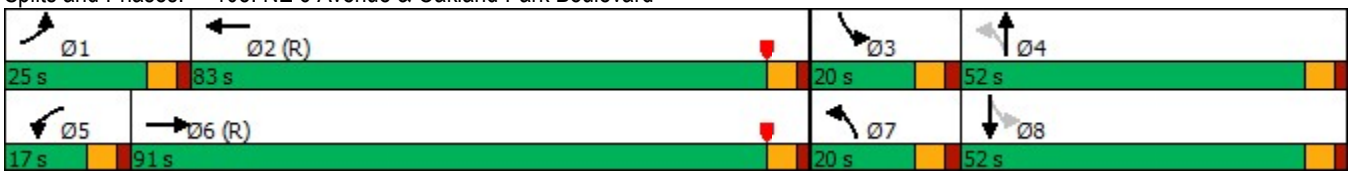
Intersection Summary		
HCM 6th Ctrl Delay	7.3	
HCM 6th LOS	A	

Timings
105: NE 6 Avenue & Oakland Park Boulevard

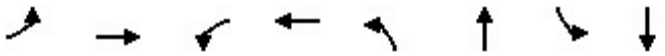
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	51	1561	66	1023	139	136	82	202
Future Volume (vph)	51	1561	66	1023	139	136	82	202
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	25.0	91.0	17.0	83.0	20.0	52.0	20.0	52.0
Total Split (%)	13.9%	50.6%	9.4%	46.1%	11.1%	28.9%	11.1%	28.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	34.1	99.7	11.4	77.0	47.6	34.2	42.1	31.4
Actuated g/C Ratio	0.19	0.55	0.06	0.43	0.26	0.19	0.23	0.17
v/c Ratio	0.17	0.65	0.64	0.54	0.76	0.61	0.37	0.86
Control Delay	83.0	17.1	106.6	39.3	74.1	70.4	51.5	94.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	17.1	106.6	39.3	74.1	70.4	51.5	94.4
LOS	F	B	F	D	E	E	D	F
Approach Delay		19.1		43.2		72.0		83.9
Approach LOS		B		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 140 (78%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 38.0	Intersection LOS: D
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard

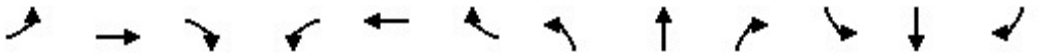


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	55	1796	71	1160	149	208	88	273
v/c Ratio	0.17	0.65	0.64	0.54	0.76	0.61	0.37	0.86
Control Delay	83.0	17.1	106.6	39.3	74.1	70.4	51.5	94.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	17.1	106.6	39.3	74.1	70.4	51.5	94.4
Queue Length 50th (ft)	65	200	84	371	139	216	79	310
Queue Length 95th (ft)	m85	306	141	418	193	299	121	403
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	332	2759	122	2135	201	455	271	461
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	0.17	0.65	0.58	0.54	0.74	0.46	0.32	0.59

Intersection Summary

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

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1561	110	66	1023	56	139	136	58	82	202	52
Future Volume (veh/h)	51	1561	110	66	1023	56	139	136	58	82	202	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	55	1678	118	71	1100	60	149	146	62	88	217	56
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2750	193	87	2523	137	199	240	102	232	241	62
Arrive On Green	0.14	0.76	0.76	0.07	0.68	0.68	0.08	0.20	0.20	0.05	0.17	0.17
Sat Flow, veh/h	1767	4823	339	1767	4908	267	1767	1228	521	1767	1421	367
Grp Volume(v), veh/h	55	1174	622	71	757	403	149	0	208	88	0	273
Grp Sat Flow(s),veh/h/ln	1767	1689	1784	1767	1689	1799	1767	0	1749	1767	0	1787
Q Serve(g_s), s	5.0	28.1	28.2	7.1	18.2	18.2	12.4	0.0	19.5	7.4	0.0	27.0
Cycle Q Clear(g_c), s	5.0	28.1	28.2	7.1	18.2	18.2	12.4	0.0	19.5	7.4	0.0	27.0
Prop In Lane	1.00		0.19	1.00		0.15	1.00		0.30	1.00		0.21
Lane Grp Cap(c), veh/h	187	1926	1017	87	1736	925	199	0	342	232	0	303
V/C Ratio(X)	0.29	0.61	0.61	0.81	0.44	0.44	0.75	0.00	0.61	0.38	0.00	0.90
Avail Cap(c_a), veh/h	187	1926	1017	108	1736	925	199	0	447	279	0	457
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.4	12.7	12.8	83.3	16.7	16.7	57.6	0.0	66.1	58.2	0.0	73.3
Incr Delay (d2), s/veh	2.1	0.8	1.4	25.6	0.8	1.5	13.0	0.0	0.7	0.4	0.0	11.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.2	9.9	3.9	6.6	7.3	6.3	0.0	8.9	3.4	0.0	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	13.5	14.2	108.9	17.5	18.2	70.6	0.0	66.7	58.5	0.0	84.6
LnGrp LOS	E	B	B	F	B	B	E	A	E	E	A	F
Approach Vol, veh/h		1851			1231			357			361	
Approach Delay, s/veh		15.5			23.0			68.3			78.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	98.5	15.3	41.2	14.9	108.6	20.0	36.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	19.0	77.0	14.0	46.0	11.0	85.0	14.0	46.0
Max Q Clear Time (g_c+I1), s	7.0	20.2	9.4	21.5	9.1	30.2	14.4	29.0
Green Ext Time (p_c), s	0.0	10.7	0.0	0.8	0.0	22.1	0.0	0.9

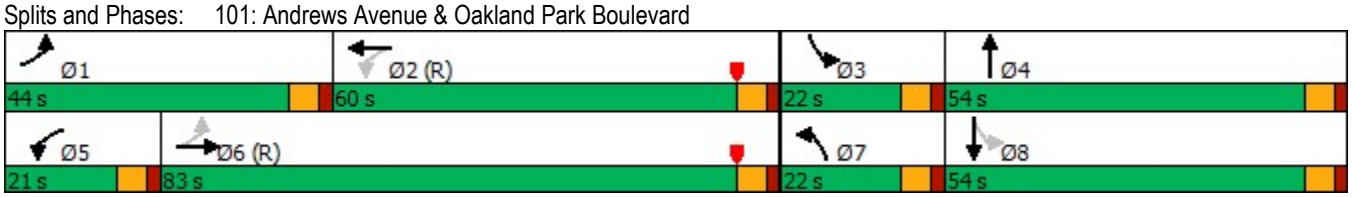
Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Timings
101: Andrews Avenue & Oakland Park Boulevard

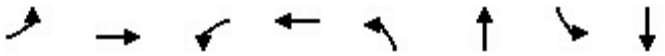
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	196	1529	128	1078	285	595	94	713
Future Volume (vph)	196	1529	128	1078	285	595	94	713
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	44.0	83.0	21.0	60.0	22.0	54.0	22.0	54.0
Total Split (%)	24.4%	46.1%	11.7%	33.3%	12.2%	30.0%	12.2%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	97.1	79.3	85.2	72.5	16.0	52.0	60.0	48.0
Actuated g/C Ratio	0.54	0.44	0.47	0.40	0.09	0.29	0.33	0.27
v/c Ratio	0.70	0.84	0.81	0.60	0.97	0.78	0.50	0.98
Control Delay	37.9	48.9	80.1	88.8	113.6	71.7	45.4	89.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	48.9	80.1	88.8	113.6	71.7	45.4	89.3
LOS	D	D	F	F	F	E	D	F
Approach Delay		47.8		87.9		83.3		85.0
Approach LOS		D		F		F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 110 (61%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 71.4	Intersection LOS: E
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard



Queues
101: Andrews Avenue & Oakland Park Boulevard



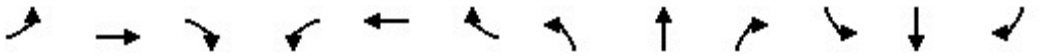
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	202	1833	132	1201	294	770	97	898
v/c Ratio	0.70	0.84	0.81	0.60	0.97	0.78	0.50	0.98
Control Delay	37.9	48.9	80.1	88.8	113.6	71.7	45.4	89.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	48.9	80.1	88.8	113.6	71.7	45.4	89.3
Queue Length 50th (ft)	120	699	139	524	181	425	74	553
Queue Length 95th (ft)	200	775	m#224	563	#287	564	120	#700
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	446	2181	186	2010	302	990	232	914
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	0.45	0.84	0.71	0.60	0.97	0.78	0.42	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Exhibit F

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1529	249	128	1078	87	285	595	152	94	713	158
Future Volume (veh/h)	196	1529	249	128	1078	87	285	595	152	94	713	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	202	1576	257	132	1111	90	294	613	157	97	735	163
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	312	2011	327	182	2071	168	305	841	215	232	760	169
Arrive On Green	0.10	0.61	0.61	0.07	0.58	0.58	0.18	0.61	0.61	0.05	0.27	0.27
Sat Flow, veh/h	1767	4390	713	1767	4776	387	3428	2766	707	1767	2854	633
Grp Volume(v), veh/h	202	1211	622	132	785	416	294	390	380	97	454	444
Grp Sat Flow(s),veh/h/ln	1767	1689	1727	1767	1689	1786	1714	1763	1710	1767	1763	1724
Q Serve(g_s), s	11.5	48.2	48.7	7.5	25.7	25.7	15.3	28.0	28.2	7.1	45.8	45.8
Cycle Q Clear(g_c), s	11.5	48.2	48.7	7.5	25.7	25.7	15.3	28.0	28.2	7.1	45.8	45.8
Prop In Lane	1.00		0.41	1.00		0.22	1.00		0.41	1.00		0.37
Lane Grp Cap(c), veh/h	312	1547	791	182	1464	774	305	536	520	232	469	459
V/C Ratio(X)	0.65	0.78	0.79	0.73	0.54	0.54	0.96	0.73	0.73	0.42	0.97	0.97
Avail Cap(c_a), veh/h	547	1547	791	234	1464	774	305	536	520	299	470	460
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	28.5	28.6	35.7	27.0	27.0	73.7	30.0	30.0	45.9	65.3	65.3
Incr Delay (d2), s/veh	2.3	4.0	7.8	6.1	1.1	2.1	41.9	4.9	5.2	1.2	33.0	33.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	19.0	20.5	3.5	10.1	10.9	8.0	10.4	10.2	3.3	25.0	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	32.5	36.3	41.8	28.1	29.1	115.6	34.9	35.2	47.1	98.2	98.8
LnGrp LOS	C	C	D	D	C	C	F	C	D	D	F	F
Approach Vol, veh/h		2035			1333			1064			995	
Approach Delay, s/veh		33.3			29.8			57.3			93.5	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	84.0	15.2	60.8	15.6	88.4	22.0	53.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	54.0	16.0	48.0	15.0	77.0	16.0	48.0
Max Q Clear Time (g_c+I1), s	13.5	27.7	9.1	30.2	9.5	50.7	17.3	47.8
Green Ext Time (p_c), s	0.6	9.5	0.1	4.8	0.1	16.0	0.0	0.1

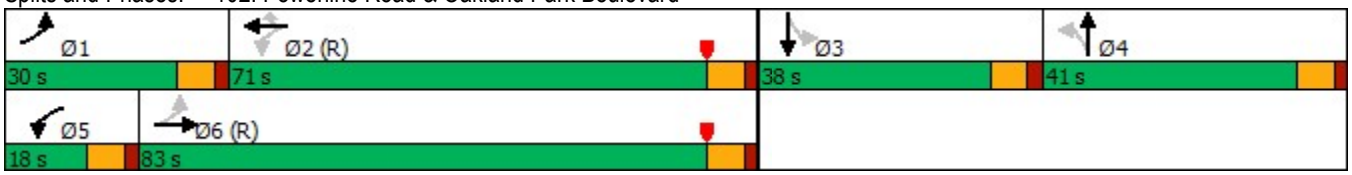
Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	208	1947	110	1338	149	406	572	212	588
Future Volume (vph)	208	1947	110	1338	149	406	572	212	588
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	41.0	41.0	38.0	38.0
Total Split (s)	30.0	83.0	18.0	71.0	71.0	41.0	41.0	38.0	38.0
Total Split (%)	16.7%	46.1%	10.0%	39.4%	39.4%	22.8%	22.8%	21.1%	21.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	93.4	77.1	78.0	68.1	68.1	34.0	34.0	31.0	31.0
Actuated g/C Ratio	0.52	0.43	0.43	0.38	0.38	0.19	0.19	0.17	0.17
v/c Ratio	0.88	1.03	0.82	0.72	0.23	2.05	1.61	2.77	1.37
Control Delay	77.1	77.1	82.7	51.1	6.1	536.7	322.8	855.2	228.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.1	77.1	82.7	51.1	6.1	536.7	322.8	855.2	228.5
LOS	E	E	F	D	A	F	F	F	F
Approach Delay		77.1		49.1			359.4		361.1
Approach LOS		E		D			F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.77	
Intersection Signal Delay: 170.9	Intersection LOS: F
Intersection Capacity Utilization 113.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	214	2198	113	1379	154	209	1011	219	816
v/c Ratio	0.88	1.03	0.82	0.72	0.23	2.05	1.61	2.77	1.37
Control Delay	77.1	77.1	82.7	51.1	6.1	536.7	322.8	855.2	228.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.1	77.1	82.7	51.1	6.1	536.7	322.8	855.2	228.5
Queue Length 50th (ft)	178	~1024	83	517	2	~448	~652	~225	~657
Queue Length 95th (ft)	#297	#1107	#195	590	55	#661	#758	#321	#797
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	279	2132	148	1906	680	102	628	79	594
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	0.77	1.03	0.76	0.72	0.23	2.05	1.61	2.77	1.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Exhibit F

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	1947	185	110	1338	149	406	572	205	212	588	204
Future Volume (vph)	208	1947	185	110	1338	149	406	572	205	212	588	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4964		1752	5036	1547	1499	4542		3398	3345	
Flt Permitted	0.08	1.00		0.06	1.00	1.00	0.34	0.70		0.13	1.00	
Satd. Flow (perm)	142	4964		108	5036	1547	543	3204		461	3345	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	214	2007	191	113	1379	154	419	590	211	219	606	210
RTOR Reduction (vph)	0	6	0	0	0	94	0	24	0	0	19	0
Lane Group Flow (vph)	214	2192	0	113	1379	60	209	987	0	219	797	0
Confl. Peds. (#/hr)	1		1	1		1	9		3	3		9
Confl. Bikes (#/hr)												1
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	94.0	77.1		78.0	68.1	68.1	34.0	34.0		31.0	31.0	
Effective Green, g (s)	94.0	77.1		78.0	68.1	68.1	34.0	34.0		31.0	31.0	
Actuated g/C Ratio	0.52	0.43		0.43	0.38	0.38	0.19	0.19		0.17	0.17	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	243	2126		137	1905	585	102	605		79	576	
v/s Ratio Prot	c0.09	c0.44		0.05	0.27						0.24	
v/s Ratio Perm	0.37			0.31		0.04	c0.39	0.31		c0.47		
v/c Ratio	0.88	1.03		0.82	0.72	0.10	2.05	1.63		2.77	1.38	
Uniform Delay, d1	48.6	51.5		44.7	47.9	36.2	73.0	73.0		74.5	74.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	28.1	28.0		30.2	2.4	0.3	504.3	292.0		831.6	183.2	
Delay (s)	76.7	79.4		75.0	50.3	36.5	577.3	365.0		906.1	257.7	
Level of Service	E	E		E	D	D	F	F		F	F	
Approach Delay (s)		79.2			50.7			401.4			394.9	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	185.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	113.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	23	7	84	9	6	996	125	783	14
Future Volume (vph)	23	7	84	9	6	996	125	783	14
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	35.0	35.0	35.0	35.0	33.0	33.0	12.0	45.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	41.3%	41.3%	15.0%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.1	10.1	10.1	10.1	43.1	43.1	56.9	56.9	56.9
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.54	0.54	0.71	0.71	0.71
v/c Ratio	0.24	0.09	0.54	0.55	0.02	0.65	0.45	0.35	0.01
Control Delay	35.1	19.5	43.6	12.1	11.7	16.2	9.0	5.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	19.5	43.6	12.1	11.7	16.2	9.0	5.3	0.5
LOS	D	B	D	B	B	B	A	A	A
Approach Delay		28.3		22.2		16.2		5.7	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 73.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: NW 29 Street & Powerline Road

Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	26	20	93	196	7	1216	139	870	16
v/c Ratio	0.24	0.09	0.54	0.55	0.02	0.65	0.45	0.35	0.01
Control Delay	35.1	19.5	43.6	12.1	11.7	16.2	9.0	5.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	19.5	43.6	12.1	11.7	16.2	9.0	5.3	0.5
Queue Length 50th (ft)	12	4	45	5	1	205	18	71	0
Queue Length 95th (ft)	33	21	85	59	9	346	43	124	2
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	317	616	497	691	323	1863	308	2494	1127
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	0.08	0.03	0.19	0.28	0.02	0.65	0.45	0.35	0.01

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	7	11	84	9	167	6	996	98	125	783	14
Future Volume (veh/h)	23	7	11	84	9	167	6	996	98	125	783	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	8	12	93	10	186	7	1107	109	139	870	16
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	111	166	304	13	248	423	1710	168	345	2371	1051
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.70	0.70	0.70	0.07	0.89	0.89
Sat Flow, veh/h	1177	670	1005	1381	81	1504	630	3232	318	1767	3526	1563
Grp Volume(v), veh/h	26	0	20	93	0	196	7	603	613	139	870	16
Grp Sat Flow(s),veh/h/ln	1177	0	1675	1381	0	1585	630	1763	1787	1767	1763	1563
Q Serve(g_s), s	1.7	0.0	0.8	4.9	0.0	9.4	0.3	14.9	15.0	2.7	3.1	0.1
Cycle Q Clear(g_c), s	11.1	0.0	0.8	5.7	0.0	9.4	0.3	14.9	15.0	2.7	3.1	0.1
Prop In Lane	1.00		0.60	1.00		0.95	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	146	0	276	304	0	262	423	932	945	345	2371	1051
V/C Ratio(X)	0.18	0.00	0.07	0.31	0.00	0.75	0.02	0.65	0.65	0.40	0.37	0.02
Avail Cap(c_a), veh/h	378	0	607	577	0	574	423	932	945	356	2371	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	37.1	0.0	28.2	30.6	0.0	31.8	5.6	7.8	7.8	9.0	1.5	1.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	1.6	0.1	3.5	3.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	1.6	0.0	3.6	0.0	4.6	4.6	0.9	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	28.3	30.8	0.0	33.4	5.7	11.3	11.2	9.0	1.6	1.4
LnGrp LOS	D	A	C	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		46			289			1223			1025	
Approach Delay, s/veh		33.4			32.6			11.2			2.6	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.5	49.3		19.2		60.8		19.2				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	5.0	26.0		29.0		38.0		29.0				
Max Q Clear Time (g_c+I1), s	4.7	17.0		13.1		5.1		11.4				
Green Ext Time (p_c), s	0.0	5.2		0.1		7.3		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

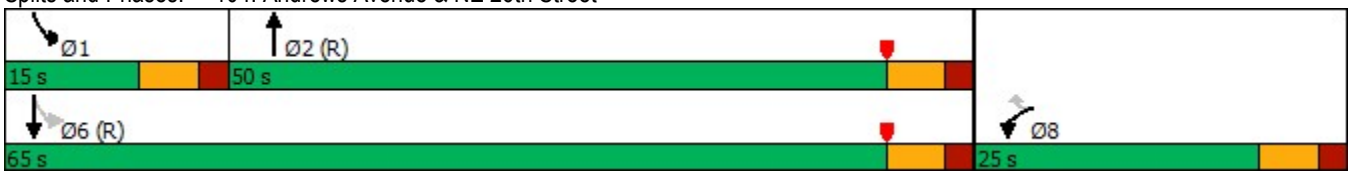
User approved pedestrian interval to be less than phase max green.

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	143	153	976	169	1039
Future Volume (vph)	143	153	976	169	1039
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.9	11.9	53.2	66.1	66.1
Actuated g/C Ratio	0.13	0.13	0.59	0.73	0.73
v/c Ratio	0.63	0.46	0.56	0.50	0.41
Control Delay	48.8	10.2	13.3	8.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	10.2	13.3	8.1	7.7
LOS	D	B	B	A	A
Approach Delay	28.9		13.3		7.7
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street



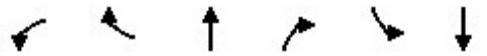
Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	146	156	1132	172	1060
v/c Ratio	0.63	0.46	0.56	0.50	0.41
Control Delay	48.8	10.2	13.3	8.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	10.2	13.3	8.1	7.7
Queue Length 50th (ft)	80	0	184	34	272
Queue Length 95th (ft)	133	50	306	m59	m442
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	454	2034	383	2575
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.34	0.56	0.45	0.41

Intersection Summary

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

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	143	153	976	133	169	1039
Future Volume (veh/h)	143	153	976	133	169	1039
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	146	156	996	136	172	1060
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	216	193	1933	264	437	2624
Arrive On Green	0.12	0.12	0.83	0.83	0.07	0.99
Sat Flow, veh/h	1767	1572	3198	424	1767	3618
Grp Volume(v), veh/h	146	156	565	567	172	1060
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1766	1767	1763
Q Serve(g_s), s	7.1	8.7	8.7	8.7	3.0	0.5
Cycle Q Clear(g_c), s	7.1	8.7	8.7	8.7	3.0	0.5
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	216	193	1097	1100	437	2624
V/C Ratio(X)	0.67	0.81	0.51	0.52	0.39	0.40
Avail Cap(c_a), veh/h	373	332	1097	1100	516	2624
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.5	3.7	3.7	5.4	0.1
Incr Delay (d2), s/veh	1.4	3.1	1.7	1.7	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.5	2.5	2.5	0.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.1	41.6	5.4	5.4	5.6	0.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	302		1132			1232
Approach Delay, s/veh	40.4		5.4			1.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	62.0			73.0	17.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	5.0	10.7			2.5	10.7
Green Ext Time (p_c), s	0.1	9.5			10.4	0.3

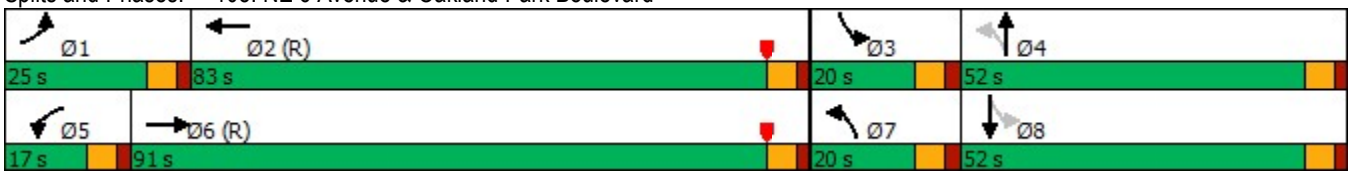
Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Timings
105: NE 6 Avenue & Oakland Park Boulevard

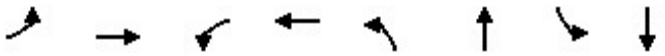
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	1620	69	1061	144	141	85	210
Future Volume (vph)	53	1620	69	1061	144	141	85	210
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	25.0	91.0	17.0	83.0	20.0	52.0	20.0	52.0
Total Split (%)	13.9%	50.6%	9.4%	46.1%	11.1%	28.9%	11.1%	28.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	33.0	98.5	11.5	77.0	48.7	35.2	43.4	32.5
Actuated g/C Ratio	0.18	0.55	0.06	0.43	0.27	0.20	0.24	0.18
v/c Ratio	0.18	0.68	0.66	0.56	0.79	0.62	0.38	0.87
Control Delay	83.2	18.8	108.8	39.9	76.6	70.1	50.9	93.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	18.8	108.8	39.9	76.6	70.1	50.9	93.9
LOS	F	B	F	D	E	E	D	F
Approach Delay		20.8		43.9		72.8		83.5
Approach LOS		C		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 140 (78%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.1	Intersection LOS: D
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	1865	74	1203	155	217	91	284
v/c Ratio	0.18	0.68	0.66	0.56	0.79	0.62	0.38	0.87
Control Delay	83.2	18.8	108.8	39.9	76.6	70.1	50.9	93.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	18.8	108.8	39.9	76.6	70.1	50.9	93.9
Queue Length 50th (ft)	67	225	87	389	143	226	81	323
Queue Length 95th (ft)	m85	338	146	437	#208	310	123	415
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	320	2724	122	2135	201	455	272	461
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	0.18	0.68	0.61	0.56	0.77	0.48	0.33	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1620	114	69	1061	58	144	141	60	85	210	54
Future Volume (veh/h)	53	1620	114	69	1061	58	144	141	60	85	210	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	57	1742	123	74	1141	62	155	152	65	91	226	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2714	191	90	2497	136	198	245	105	233	249	64
Arrive On Green	0.14	0.75	0.75	0.07	0.68	0.68	0.08	0.20	0.20	0.05	0.17	0.17
Sat Flow, veh/h	1767	4821	340	1767	4910	267	1767	1225	524	1767	1423	365
Grp Volume(v), veh/h	57	1219	646	74	785	418	155	0	217	91	0	284
Grp Sat Flow(s),veh/h/ln	1767	1689	1784	1767	1689	1799	1767	0	1749	1767	0	1788
Q Serve(g_s), s	5.2	31.4	31.6	7.4	19.6	19.6	12.9	0.0	20.4	7.6	0.0	28.1
Cycle Q Clear(g_c), s	5.2	31.4	31.6	7.4	19.6	19.6	12.9	0.0	20.4	7.6	0.0	28.1
Prop In Lane	1.00		0.19	1.00		0.15	1.00		0.30	1.00		0.20
Lane Grp Cap(c), veh/h	187	1901	1004	90	1718	915	198	0	350	233	0	312
V/C Ratio(X)	0.31	0.64	0.64	0.82	0.46	0.46	0.78	0.00	0.62	0.39	0.00	0.91
Avail Cap(c_a), veh/h	187	1901	1004	108	1718	915	198	0	447	277	0	457
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.4	13.8	13.8	83.0	17.5	17.5	57.3	0.0	65.8	57.4	0.0	72.9
Incr Delay (d2), s/veh	1.9	0.8	1.5	28.1	0.9	1.6	16.9	0.0	0.7	0.4	0.0	13.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	10.4	11.3	4.1	7.2	7.9	6.8	0.0	9.3	3.5	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	14.6	15.3	111.1	18.4	19.1	74.2	0.0	66.5	57.8	0.0	86.1
LnGrp LOS	E	B	B	F	B	B	E	A	E	E	A	F
Approach Vol, veh/h		1922			1277			372			375	
Approach Delay, s/veh		16.6			24.0			69.7			79.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	97.5	15.5	42.0	15.2	107.3	20.0	37.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	19.0	77.0	14.0	46.0	11.0	85.0	14.0	46.0
Max Q Clear Time (g_c+I1), s	7.2	21.6	9.6	22.4	9.4	33.6	14.9	30.1
Green Ext Time (p_c), s	0.0	11.3	0.0	0.8	0.0	23.1	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

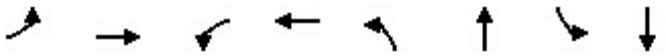
Timings
101: Andrews Avenue & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	196	1529	128	1078	310	603	97	713
Future Volume (vph)	196	1529	128	1078	310	603	97	713
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	44.0	83.0	21.0	60.0	22.0	54.0	22.0	54.0
Total Split (%)	24.4%	46.1%	11.7%	33.3%	12.2%	30.0%	12.2%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	97.4	79.3	84.4	71.7	16.0	51.9	60.1	48.0
Actuated g/C Ratio	0.54	0.44	0.47	0.40	0.09	0.29	0.33	0.27
v/c Ratio	0.69	0.84	0.80	0.60	1.06	0.81	0.54	0.98
Control Delay	37.3	48.9	79.2	89.3	132.9	73.0	47.4	89.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	48.9	79.2	89.3	132.9	73.0	47.4	89.3
LOS	D	D	E	F	F	E	D	F
Approach Delay		47.7		88.3		90.1		85.1
Approach LOS		D		F		F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 110 (61%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 73.0	Intersection LOS: E
Intersection Capacity Utilization 96.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard

Queues
101: Andrews Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	202	1833	132	1201	320	801	100	898
v/c Ratio	0.69	0.84	0.80	0.60	1.06	0.81	0.54	0.98
Control Delay	37.3	48.9	79.2	89.3	132.9	73.0	47.4	89.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	48.9	79.2	89.3	132.9	73.0	47.4	89.3
Queue Length 50th (ft)	120	700	139	524	~212	445	77	553
Queue Length 95th (ft)	202	775	m#220	563	#324	583	125	#700
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	444	2180	187	1987	302	986	222	914
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	0.45	0.84	0.71	0.60	1.06	0.81	0.45	0.98

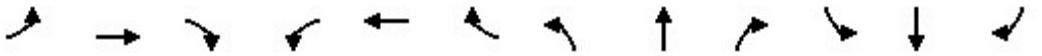
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1529	249	128	1078	87	310	603	174	97	713	158
Future Volume (veh/h)	196	1529	249	128	1078	87	310	603	174	97	713	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	202	1576	257	132	1111	90	320	622	179	100	735	163
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	312	2011	327	182	2071	168	305	814	234	222	760	169
Arrive On Green	0.10	0.61	0.61	0.07	0.58	0.58	0.18	0.61	0.61	0.05	0.27	0.27
Sat Flow, veh/h	1767	4390	713	1767	4776	387	3428	2687	772	1767	2854	633
Grp Volume(v), veh/h	202	1211	622	132	785	416	320	408	393	100	454	444
Grp Sat Flow(s),veh/h/ln	1767	1689	1727	1767	1689	1786	1714	1763	1697	1767	1763	1724
Q Serve(g_s), s	11.5	48.2	48.7	7.5	25.7	25.7	16.0	30.5	30.7	7.4	45.8	45.8
Cycle Q Clear(g_c), s	11.5	48.2	48.7	7.5	25.7	25.7	16.0	30.5	30.7	7.4	45.8	45.8
Prop In Lane	1.00		0.41	1.00		0.22	1.00		0.46	1.00		0.37
Lane Grp Cap(c), veh/h	312	1547	791	182	1464	774	305	534	514	222	469	459
V/C Ratio(X)	0.65	0.78	0.79	0.73	0.54	0.54	1.05	0.76	0.77	0.45	0.97	0.97
Avail Cap(c_a), veh/h	547	1547	791	234	1464	774	305	534	514	286	470	460
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	28.5	28.6	35.7	27.0	27.0	74.0	30.7	30.8	46.2	65.3	65.3
Incr Delay (d2), s/veh	2.3	4.0	7.8	6.1	1.1	2.1	65.3	6.4	6.8	1.4	33.0	33.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	19.0	20.5	3.5	10.1	10.9	9.3	11.5	11.2	3.4	25.0	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	32.5	36.3	41.8	28.1	29.1	139.3	37.2	37.6	47.6	98.2	98.8
LnGrp LOS	C	C	D	D	C	C	F	D	D	D	F	F
Approach Vol, veh/h		2035			1333			1121			998	
Approach Delay, s/veh		33.3			29.8			66.5			93.4	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	84.0	15.4	60.5	15.6	88.4	22.0	53.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	54.0	16.0	48.0	15.0	77.0	16.0	48.0
Max Q Clear Time (g_c+I1), s	13.5	27.7	9.4	32.7	9.5	50.7	18.0	47.8
Green Ext Time (p_c), s	0.6	9.5	0.1	4.7	0.1	16.0	0.0	0.1

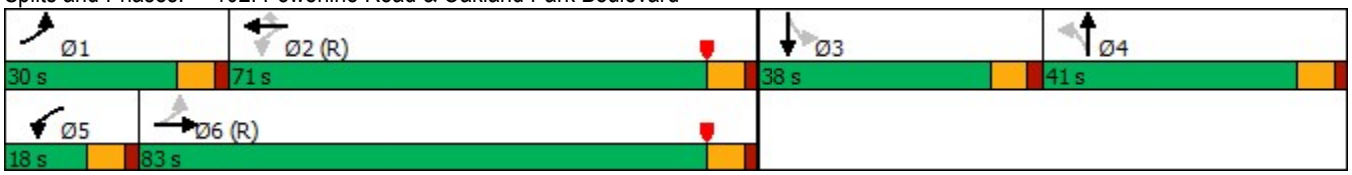
Intersection Summary	
HCM 6th Ctrl Delay	50.2
HCM 6th LOS	D

Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	208	1947	110	1363	149	406	572	212	588
Future Volume (vph)	208	1947	110	1363	149	406	572	212	588
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	41.0	41.0	38.0	38.0
Total Split (s)	30.0	83.0	18.0	71.0	71.0	41.0	41.0	38.0	38.0
Total Split (%)	16.7%	46.1%	10.0%	39.4%	39.4%	22.8%	22.8%	21.1%	21.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	93.6	77.1	77.5	67.6	67.6	34.0	34.0	31.0	31.0
Actuated g/C Ratio	0.52	0.43	0.43	0.38	0.38	0.19	0.19	0.17	0.17
v/c Ratio	0.88	1.04	0.82	0.74	0.23	2.05	1.61	2.77	1.37
Control Delay	78.7	78.6	83.4	52.2	6.2	536.7	322.8	855.2	228.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	78.6	83.4	52.2	6.2	536.7	322.8	855.2	228.5
LOS	E	E	F	D	A	F	F	F	F
Approach Delay		78.6		50.1			359.4		361.1
Approach LOS		E		D			F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.77	
Intersection Signal Delay: 171.1	Intersection LOS: F
Intersection Capacity Utilization 114.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	214	2207	113	1405	154	209	1011	219	816
v/c Ratio	0.88	1.04	0.82	0.74	0.23	2.05	1.61	2.77	1.37
Control Delay	78.7	78.6	83.4	52.2	6.2	536.7	322.8	855.2	228.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.7	78.6	83.4	52.2	6.2	536.7	322.8	855.2	228.5
Queue Length 50th (ft)	183	~1034	83	535	2	~448	~652	~225	~657
Queue Length 95th (ft)	#308	#1116	#195	605	55	#661	#758	#321	#797
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	275	2130	147	1890	675	102	628	79	594
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	0.78	1.04	0.77	0.74	0.23	2.05	1.61	2.77	1.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Exhibit F

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	1947	194	110	1363	149	406	572	205	212	588	204
Future Volume (vph)	208	1947	194	110	1363	149	406	572	205	212	588	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	0.99	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4961		1752	5036	1547	1499	4542		3398	3345	
Flt Permitted	0.07	1.00		0.06	1.00	1.00	0.34	0.70		0.13	1.00	
Satd. Flow (perm)	131	4961		109	5036	1547	543	3204		461	3345	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	214	2007	200	113	1405	154	419	590	211	219	606	210
RTOR Reduction (vph)	0	6	0	0	0	95	0	24	0	0	19	0
Lane Group Flow (vph)	214	2201	0	113	1405	59	209	987	0	219	797	0
Confl. Peds. (#/hr)	1		1	1		1	9		3	3		9
Confl. Bikes (#/hr)												1
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	94.0	77.1		77.5	67.6	67.6	34.0	34.0		31.0	31.0	
Effective Green, g (s)	94.0	77.1		77.5	67.6	67.6	34.0	34.0		31.0	31.0	
Actuated g/C Ratio	0.52	0.43		0.43	0.38	0.38	0.19	0.19		0.17	0.17	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	243	2124		137	1891	580	102	605		79	576	
v/s Ratio Prot	c0.09	c0.44		0.05	0.28						0.24	
v/s Ratio Perm	0.36			0.31		0.04	c0.39	0.31		c0.47		
v/c Ratio	0.88	1.04		0.82	0.74	0.10	2.05	1.63		2.77	1.38	
Uniform Delay, d1	51.1	51.5		44.6	48.7	36.5	73.0	73.0		74.5	74.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	28.1	29.6		30.2	2.7	0.4	504.3	292.0		831.6	183.2	
Delay (s)	79.2	81.1		74.8	51.4	36.8	577.3	365.0		906.1	257.7	
Level of Service	E	F		E	D	D	F	F		F	F	
Approach Delay (s)		80.9			51.6			401.4			394.9	
Approach LOS		F			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	186.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	114.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	23	7	84	9	6	996	134	783	14
Future Volume (vph)	23	7	84	9	6	996	134	783	14
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	35.0	35.0	35.0	35.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	35.0	35.0	35.0	35.0	33.0	33.0	12.0	45.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	41.3%	41.3%	15.0%	56.3%	56.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.1	10.1	10.1	10.1	42.6	42.6	56.9	56.9	56.9
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.53	0.53	0.71	0.71	0.71
v/c Ratio	0.24	0.09	0.54	0.55	0.02	0.66	0.47	0.35	0.01
Control Delay	35.1	19.5	43.6	12.1	12.0	16.7	9.6	5.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	19.5	43.6	12.1	12.0	16.7	9.6	5.3	0.5
LOS	D	B	D	B	B	B	A	A	A
Approach Delay		28.3		22.2		16.6		5.8	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

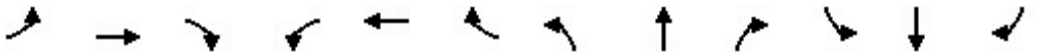
Splits and Phases: 103: NW 29 Street & Powerline Road

Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	26	20	93	196	7	1216	149	870	16
v/c Ratio	0.24	0.09	0.54	0.55	0.02	0.66	0.47	0.35	0.01
Control Delay	35.1	19.5	43.6	12.1	12.0	16.7	9.6	5.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	19.5	43.6	12.1	12.0	16.7	9.6	5.3	0.5
Queue Length 50th (ft)	12	4	45	5	2	207	19	71	0
Queue Length 95th (ft)	33	21	85	59	9	350	48	124	2
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	317	616	497	691	320	1843	314	2494	1127
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	0.08	0.03	0.19	0.28	0.02	0.66	0.47	0.35	0.01

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	7	11	84	9	167	6	996	98	134	783	14
Future Volume (veh/h)	23	7	11	84	9	167	6	996	98	134	783	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	8	12	93	10	186	7	1107	109	149	870	16
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	111	166	304	13	248	421	1700	167	348	2371	1051
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.70	0.70	0.70	0.08	0.89	0.89
Sat Flow, veh/h	1177	670	1005	1381	81	1504	630	3232	318	1767	3526	1563
Grp Volume(v), veh/h	26	0	20	93	0	196	7	603	613	149	870	16
Grp Sat Flow(s),veh/h/ln	1177	0	1675	1381	0	1585	630	1763	1787	1767	1763	1563
Q Serve(g_s), s	1.7	0.0	0.8	4.9	0.0	9.4	0.3	15.1	15.2	2.9	3.1	0.1
Cycle Q Clear(g_c), s	11.1	0.0	0.8	5.7	0.0	9.4	0.3	15.1	15.2	2.9	3.1	0.1
Prop In Lane	1.00		0.60	1.00		0.95	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	146	0	276	304	0	262	421	927	940	348	2371	1051
V/C Ratio(X)	0.18	0.00	0.07	0.31	0.00	0.75	0.02	0.65	0.65	0.43	0.37	0.02
Avail Cap(c_a), veh/h	378	0	607	577	0	574	421	927	940	354	2371	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	37.1	0.0	28.2	30.6	0.0	31.8	5.7	8.0	8.0	9.2	1.5	1.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	1.6	0.1	3.5	3.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	1.6	0.0	3.6	0.0	4.6	4.7	0.9	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	0.0	28.3	30.8	0.0	33.4	5.8	11.5	11.5	9.2	1.6	1.4
LnGrp LOS	D	A	C	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		46			289			1223			1035	
Approach Delay, s/veh		33.4			32.6			11.5			2.7	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.7	49.1		19.2		60.8		19.2				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	5.0	26.0		29.0		38.0		29.0				
Max Q Clear Time (g_c+I1), s	4.9	17.2		13.1		5.1		11.4				
Green Ext Time (p_c), s	0.0	5.2		0.1		7.3		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		10.7	
HCM 6th LOS		B	

Notes

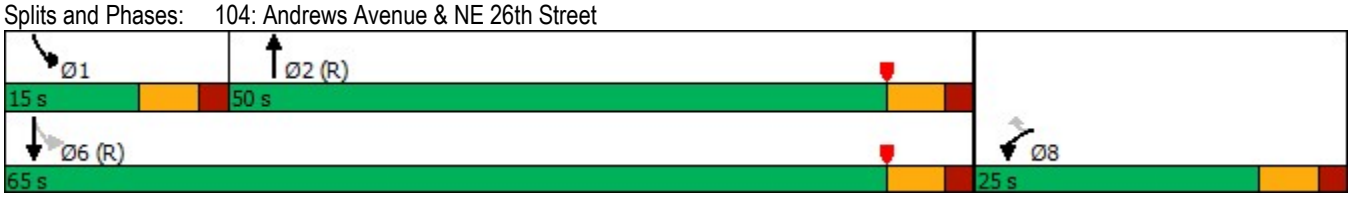
User approved pedestrian interval to be less than phase max green.

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	151	161	978	169	1039
Future Volume (vph)	151	161	978	169	1039
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.2	12.2	52.8	65.8	65.8
Actuated g/C Ratio	0.14	0.14	0.59	0.73	0.73
v/c Ratio	0.65	0.46	0.56	0.50	0.41
Control Delay	48.9	10.0	13.6	8.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	10.0	13.6	8.4	8.0
LOS	D	B	B	A	A
Approach Delay	28.9		13.6		8.0
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 64.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street



Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	154	164	1134	172	1060
v/c Ratio	0.65	0.46	0.56	0.50	0.41
Control Delay	48.9	10.0	13.6	8.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	10.0	13.6	8.4	8.0
Queue Length 50th (ft)	84	0	186	35	282
Queue Length 95th (ft)	138	51	311	m61	m443
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	460	2019	379	2560
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.42	0.36	0.56	0.45	0.41

Intersection Summary

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

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	151	161	978	133	169	1039
Future Volume (veh/h)	151	161	978	133	169	1039
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	154	164	998	136	172	1060
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	225	201	1916	261	432	2606
Arrive On Green	0.13	0.13	0.82	0.82	0.07	0.98
Sat Flow, veh/h	1767	1572	3199	423	1767	3618
Grp Volume(v), veh/h	154	164	566	568	172	1060
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1766	1767	1763
Q Serve(g_s), s	7.5	9.1	9.1	9.1	3.0	0.8
Cycle Q Clear(g_c), s	7.5	9.1	9.1	9.1	3.0	0.8
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	225	201	1087	1090	432	2606
V/C Ratio(X)	0.68	0.82	0.52	0.52	0.40	0.41
Avail Cap(c_a), veh/h	373	332	1087	1090	511	2606
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	38.2	3.9	3.9	5.6	0.2
Incr Delay (d2), s/veh	1.4	3.1	1.8	1.8	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.6	2.6	2.6	0.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.9	41.3	5.7	5.7	5.8	0.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	318		1134			1232
Approach Delay, s/veh	40.2		5.7			1.4
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	61.5			72.5	17.5
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	5.0	11.1			2.8	11.1
Green Ext Time (p_c), s	0.1	9.5			10.4	0.3

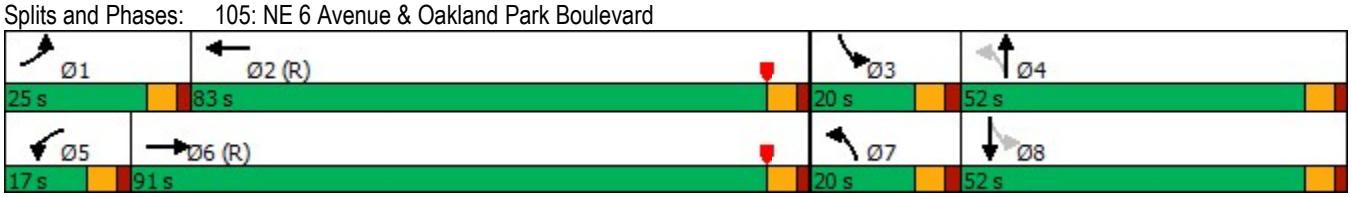
Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Timings
105: NE 6 Avenue & Oakland Park Boulevard

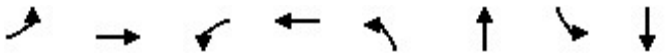
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	1634	74	1061	150	141	85	210
Future Volume (vph)	53	1634	74	1061	150	141	85	210
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	25.0	91.0	17.0	83.0	20.0	52.0	20.0	52.0
Total Split (%)	13.9%	50.6%	9.4%	46.1%	11.1%	28.9%	11.1%	28.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	32.9	97.8	12.1	77.0	48.9	35.3	43.4	32.5
Actuated g/C Ratio	0.18	0.54	0.07	0.43	0.27	0.20	0.24	0.18
v/c Ratio	0.18	0.70	0.68	0.56	0.82	0.62	0.38	0.87
Control Delay	81.9	19.3	109.0	39.9	80.3	70.0	50.8	93.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.9	19.3	109.0	39.9	80.3	70.0	50.8	93.9
LOS	F	B	F	D	F	E	D	F
Approach Delay		21.1		44.2		74.4		83.5
Approach LOS		C		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 140 (78%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 81.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	1891	80	1203	161	217	91	284
v/c Ratio	0.18	0.70	0.68	0.56	0.82	0.62	0.38	0.87
Control Delay	81.9	19.3	109.0	39.9	80.3	70.0	50.8	93.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.9	19.3	109.0	39.9	80.3	70.0	50.8	93.9
Queue Length 50th (ft)	67	239	94	389	149	226	81	323
Queue Length 95th (ft)	m84	349	156	437	#225	310	123	415
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	320	2703	125	2135	200	455	273	461
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	0.18	0.70	0.64	0.56	0.81	0.48	0.33	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1634	125	74	1061	58	150	141	60	85	210	54
Future Volume (veh/h)	53	1634	125	74	1061	58	150	141	60	85	210	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	57	1757	134	80	1141	62	161	152	65	91	226	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	2680	204	97	2497	136	198	245	105	233	249	64
Arrive On Green	0.14	0.74	0.74	0.07	0.68	0.68	0.08	0.20	0.20	0.05	0.17	0.17
Sat Flow, veh/h	1767	4791	364	1767	4910	267	1767	1225	524	1767	1423	365
Grp Volume(v), veh/h	57	1237	654	80	785	418	161	0	217	91	0	284
Grp Sat Flow(s),veh/h/ln	1767	1689	1779	1767	1689	1799	1767	0	1749	1767	0	1788
Q Serve(g_s), s	5.2	32.9	33.1	8.0	19.6	19.6	13.4	0.0	20.4	7.6	0.0	28.1
Cycle Q Clear(g_c), s	5.2	32.9	33.1	8.0	19.6	19.6	13.4	0.0	20.4	7.6	0.0	28.1
Prop In Lane	1.00		0.20	1.00		0.15	1.00		0.30	1.00		0.20
Lane Grp Cap(c), veh/h	187	1889	995	97	1718	915	198	0	350	233	0	312
V/C Ratio(X)	0.31	0.65	0.66	0.83	0.46	0.46	0.81	0.00	0.62	0.39	0.00	0.91
Avail Cap(c_a), veh/h	187	1889	995	108	1718	915	198	0	447	277	0	457
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	71.4	14.4	14.4	82.6	17.5	17.5	57.5	0.0	65.8	57.4	0.0	72.9
Incr Delay (d2), s/veh	1.9	0.8	1.6	32.7	0.9	1.6	20.9	0.0	0.7	0.4	0.0	13.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	11.0	11.9	4.5	7.2	7.9	7.2	0.0	9.3	3.5	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	15.2	16.0	115.3	18.4	19.1	78.4	0.0	66.5	57.8	0.0	86.1
LnGrp LOS	E	B	B	F	B	B	E	A	E	E	A	F
Approach Vol, veh/h		1948			1283			378			375	
Approach Delay, s/veh		17.2			24.6			71.5			79.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	97.5	15.5	42.0	15.9	106.7	20.0	37.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	19.0	77.0	14.0	46.0	11.0	85.0	14.0	46.0
Max Q Clear Time (g_c+I1), s	7.2	21.6	9.6	22.4	10.0	35.1	15.4	30.1
Green Ext Time (p_c), s	0.0	11.3	0.0	0.8	0.0	23.3	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

HCM 6th TWSC
202: Driveway & Andrews Avenue

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1129	19	0	1208
Future Vol, veh/h	0	55	1129	19	0	1208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	60	1227	21	0	1313

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	624	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	705	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	705	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

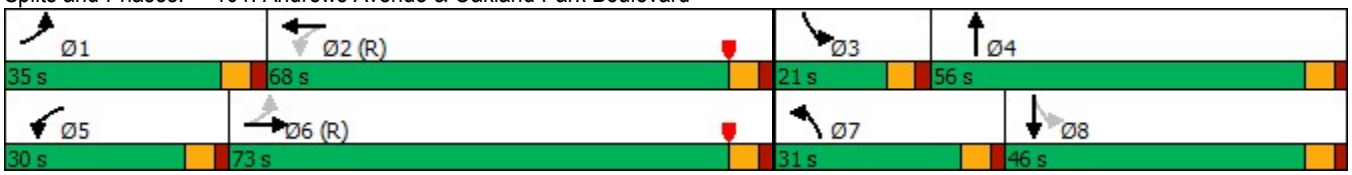
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	705	-
HCM Lane V/C Ratio	-	-	0.085	-
HCM Control Delay (s)	-	-	10.6	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Timings
101: Andrews Avenue & Oakland Park Boulevard

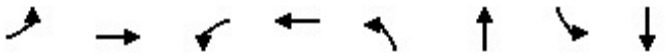
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	260	1044	200	1361	312	754	82	584
Future Volume (vph)	260	1044	200	1361	312	754	82	584
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	35.0	73.0	30.0	68.0	31.0	56.0	21.0	46.0
Total Split (%)	19.4%	40.6%	16.7%	37.8%	17.2%	31.1%	11.7%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	99.4	75.9	85.5	67.8	20.6	52.7	51.5	41.7
Actuated g/C Ratio	0.55	0.42	0.48	0.38	0.11	0.29	0.29	0.23
v/c Ratio	0.92	0.64	0.80	0.81	0.83	0.91	0.63	0.92
Control Delay	90.7	42.9	72.2	90.9	92.0	71.1	59.5	83.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	42.9	72.2	90.9	92.0	71.1	59.5	83.7
LOS	F	D	E	F	F	E	E	F
Approach Delay		50.9		88.7		76.5		81.2
Approach LOS		D		F		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 114 (63%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 73.5	Intersection LOS: E
Intersection Capacity Utilization 93.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard



Queues
101: Andrews Avenue & Oakland Park Boulevard

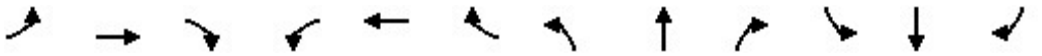


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	268	1325	206	1514	322	917	85	738
v/c Ratio	0.92	0.64	0.80	0.81	0.83	0.91	0.63	0.92
Control Delay	90.7	42.9	72.2	90.9	92.0	71.1	59.5	83.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.7	42.9	72.2	90.9	92.0	71.1	59.5	83.7
Queue Length 50th (ft)	264	456	232	597	172	585	64	438
Queue Length 95th (ft)	#417	538	m319	650	227	#695	113	#587
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	321	2084	320	1880	472	1012	187	801
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	0.83	0.64	0.64	0.81	0.68	0.91	0.45	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	1044	242	200	1361	108	312	754	136	82	584	132
Future Volume (veh/h)	260	1044	242	200	1361	108	312	754	136	82	584	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	268	1076	249	206	1403	111	322	777	140	85	602	136
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	295	1903	440	302	2119	168	363	832	150	136	630	142
Arrive On Green	0.13	0.62	0.62	0.10	0.59	0.59	0.03	0.09	0.09	0.05	0.22	0.22
Sat Flow, veh/h	1767	4110	951	1767	4786	379	3428	2975	536	1767	2847	641
Grp Volume(v), veh/h	268	884	441	206	990	524	322	460	457	85	372	366
Grp Sat Flow(s),veh/h/ln	1767	1689	1684	1767	1689	1787	1714	1763	1748	1767	1763	1725
Q Serve(g_s), s	15.2	27.8	27.8	11.6	35.6	35.6	16.8	46.7	46.7	6.7	37.5	37.7
Cycle Q Clear(g_c), s	15.2	27.8	27.8	11.6	35.6	35.6	16.8	46.7	46.7	6.7	37.5	37.7
Prop In Lane	1.00		0.56	1.00		0.21	1.00		0.31	1.00		0.37
Lane Grp Cap(c), veh/h	295	1563	780	302	1495	791	363	493	489	136	390	382
V/C Ratio(X)	0.91	0.57	0.57	0.68	0.66	0.66	0.89	0.93	0.93	0.62	0.95	0.96
Avail Cap(c_a), veh/h	409	1563	780	402	1495	791	476	493	489	200	392	383
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	23.9	23.9	26.0	27.9	27.9	85.8	80.0	80.0	54.7	69.2	69.3
Incr Delay (d2), s/veh	16.1	1.5	3.0	0.8	1.4	2.7	12.5	24.7	24.9	1.7	33.4	34.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	10.7	11.0	4.8	13.9	15.0	8.5	25.8	25.6	3.1	20.6	20.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	25.4	26.9	26.9	29.4	30.7	98.3	104.8	105.0	56.4	102.6	104.1
LnGrp LOS	D	C	C	C	C	C	F	F	F	E	F	F
Approach Vol, veh/h		1593			1720			1239			823	
Approach Delay, s/veh		29.6			29.5			103.1			98.5	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	85.7	14.6	56.4	19.7	89.3	25.1	45.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.0	62.0	15.0	50.0	24.0	67.0	25.0	40.0
Max Q Clear Time (g_c+I1), s	17.2	37.6	8.7	48.7	13.6	29.8	18.8	39.7
Green Ext Time (p_c), s	0.2	12.2	0.0	0.6	0.1	12.3	0.2	0.1

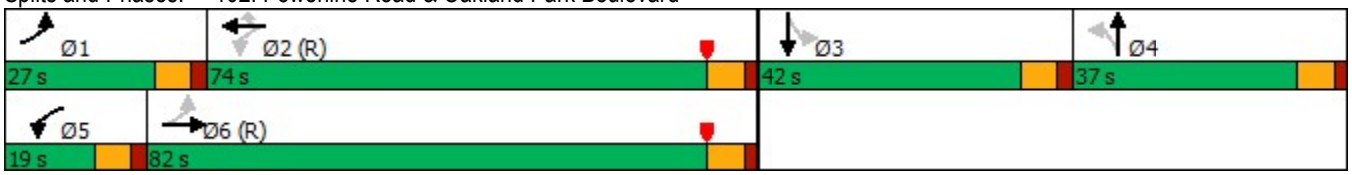
Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	219	1685	135	1610	147	365	565	179	625
Future Volume (vph)	219	1685	135	1610	147	365	565	179	625
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	37.0	37.0	38.0	38.0
Total Split (s)	27.0	82.0	19.0	74.0	74.0	37.0	37.0	42.0	42.0
Total Split (%)	15.0%	45.6%	10.6%	41.1%	41.1%	20.6%	20.6%	23.3%	23.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	91.5	75.5	82.3	70.8	70.8	30.0	30.0	35.0	35.0
Actuated g/C Ratio	0.51	0.42	0.46	0.39	0.39	0.17	0.17	0.19	0.19
v/c Ratio	1.13	0.97	0.91	0.83	0.21	2.04	1.62	2.32	1.20
Control Delay	150.9	63.6	97.7	54.1	5.4	538.7	330.8	658.3	160.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	150.9	63.6	97.7	54.1	5.4	538.7	330.8	658.3	160.7
LOS	F	E	F	D	A	F	F	F	F
Approach Delay		72.3		53.4			366.3		253.1
Approach LOS		E		D			F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.32	
Intersection Signal Delay: 146.3	Intersection LOS: F
Intersection Capacity Utilization 109.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	223	2011	138	1643	150	186	903	183	803
v/c Ratio	1.13	0.97	0.91	0.83	0.21	2.04	1.62	2.32	1.20
Control Delay	150.9	63.6	97.7	54.1	5.4	538.7	330.8	658.3	160.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	150.9	63.6	97.7	54.1	5.4	538.7	330.8	658.3	160.7
Queue Length 50th (ft)	~249	846	114	642	0	~398	~589	~180	~595
Queue Length 95th (ft)	#398	#957	#258	728	50	#601	#693	#271	#734
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	234	2078	157	1981	701	91	556	79	670
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	0.95	0.97	0.88	0.83	0.21	2.04	1.62	2.32	1.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Exhibit F

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	1685	286	135	1610	147	365	565	137	179	625	162
Future Volume (vph)	219	1685	286	135	1610	147	365	565	137	179	625	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4926		1752	5036	1547	1505	4589		3400	3383	
Flt Permitted	0.05	1.00		0.06	1.00	1.00	0.35	0.70		0.11	1.00	
Satd. Flow (perm)	98	4926		104	5036	1547	552	3257		409	3383	
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)	223	1719	292	138	1643	150	372	577	140	183	638	165
RTOR Reduction (vph)	0	13	0	0	0	91	0	13	0	0	13	0
Lane Group Flow (vph)	223	1998	0	138	1643	59	186	890	0	183	790	0
Confl. Peds. (#/hr)	1					1	3		2	2		3
Confl. Bikes (#/hr)												2
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	91.7	75.5		82.3	70.8	70.8	30.0	30.0		35.0	35.0	
Effective Green, g (s)	91.7	75.5		82.3	70.8	70.8	30.0	30.0		35.0	35.0	
Actuated g/C Ratio	0.51	0.42		0.46	0.39	0.39	0.17	0.17		0.19	0.19	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	198	2066		152	1980	608	92	542		79	657	
v/s Ratio Prot	c0.10	c0.41		0.06	0.33						0.23	
v/s Ratio Perm	c0.47			0.35		0.04	c0.34	0.27		c0.45		
v/c Ratio	1.13	0.97		0.91	0.83	0.10	2.02	1.64		2.32	1.20	
Uniform Delay, d1	59.5	51.0		51.5	49.2	34.4	75.0	75.0		72.5	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	102.0	13.4		45.6	4.2	0.3	495.7	296.9		630.1	105.3	
Delay (s)	161.5	64.5		97.1	53.4	34.8	570.7	371.9		702.6	177.8	
Level of Service	F	E		F	D	C	F	F		F	F	
Approach Delay (s)		74.2			55.1			405.9			275.2	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	157.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.60		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

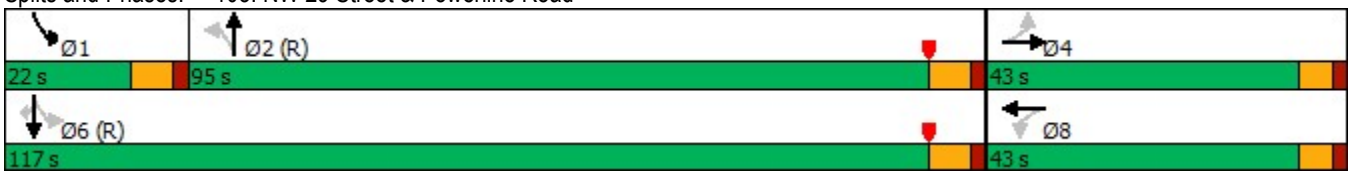
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	19	6	127	21	5	900	95	938	31
Future Volume (vph)	19	6	127	21	5	900	95	938	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	43.0	43.0	43.0	43.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	43.0	43.0	43.0	43.0	95.0	95.0	22.0	117.0	117.0
Total Split (%)	26.9%	26.9%	26.9%	26.9%	59.4%	59.4%	13.8%	73.1%	73.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.1	21.1	21.1	21.1	112.6	112.6	125.9	125.9	125.9
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.70	0.70	0.79	0.79	0.79
v/c Ratio	0.27	0.08	0.79	0.54	0.02	0.44	0.29	0.38	0.03
Control Delay	68.3	32.8	95.0	17.4	9.8	11.6	6.5	6.1	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	32.8	95.0	17.4	9.8	11.6	6.5	6.1	1.6
LOS	E	C	F	B	A	B	A	A	A
Approach Delay		51.5		50.7		11.5		6.0	
Approach LOS		D		D		B		A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 67 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: NW 29 Street & Powerline Road

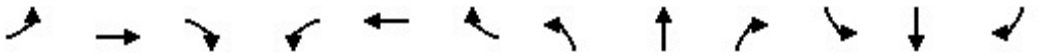


Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	21	19	143	190	6	1066	107	1054	35
v/c Ratio	0.27	0.08	0.79	0.54	0.02	0.44	0.29	0.38	0.03
Control Delay	68.3	32.8	95.0	17.4	9.8	11.6	6.5	6.1	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	32.8	95.0	17.4	9.8	11.6	6.5	6.1	1.6
Queue Length 50th (ft)	20	7	147	22	2	231	22	154	0
Queue Length 95th (ft)	48	31	214	94	8	336	47	232	10
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	138	395	317	498	350	2444	445	2757	1206
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	0.05	0.45	0.38	0.02	0.44	0.24	0.38	0.03

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	6	11	127	21	148	5	900	49	95	938	31
Future Volume (veh/h)	19	6	11	127	21	148	5	900	49	95	938	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	21	7	12	143	24	166	6	1011	55	107	1054	35
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	81	89	153	232	29	203	417	2378	129	447	2727	1190
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.93	0.93	0.93	0.04	1.00	1.00
Sat Flow, veh/h	1184	614	1052	1382	203	1401	531	3395	185	1767	3526	1538
Grp Volume(v), veh/h	21	0	19	143	0	190	6	525	541	107	1054	35
Grp Sat Flow(s),veh/h/ln	1184	0	1666	1382	0	1603	531	1763	1817	1767	1763	1538
Q Serve(g_s), s	2.8	0.0	1.6	16.0	0.0	18.4	0.1	5.4	5.4	2.7	0.0	0.0
Cycle Q Clear(g_c), s	21.2	0.0	1.6	17.5	0.0	18.4	0.1	5.4	5.4	2.7	0.0	0.0
Prop In Lane	1.00		0.63	1.00		0.87	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	81	0	242	232	0	233	417	1235	1273	447	2727	1190
V/C Ratio(X)	0.26	0.00	0.08	0.62	0.00	0.82	0.01	0.43	0.43	0.24	0.39	0.03
Avail Cap(c_a), veh/h	183	0	385	351	0	371	417	1235	1273	561	2727	1190
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	76.6	0.0	59.1	66.7	0.0	66.3	1.6	1.8	1.8	5.8	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	1.0	0.0	3.4	0.1	1.1	1.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	5.7	0.0	7.8	0.0	1.7	1.8	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	0.0	59.2	67.7	0.0	69.7	1.7	2.9	2.9	5.8	0.0	0.0
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		40			333			1072			1196	
Approach Delay, s/veh		68.6			68.8			2.9			0.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.7	119.1		29.2		130.8		29.2				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	15.0	88.0		37.0		110.0		37.0				
Max Q Clear Time (g_c+I1), s	4.7	7.4		23.2		2.0		20.4				
Green Ext Time (p_c), s	0.1	9.5		0.0		10.7		0.9				

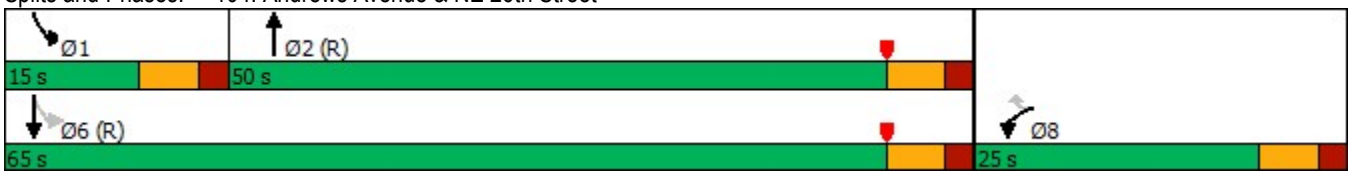
Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	235	239	1034	151	1041
Future Volume (vph)	235	239	1034	151	1041
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.8	15.8	49.5	62.2	62.2
Actuated g/C Ratio	0.18	0.18	0.55	0.69	0.69
v/c Ratio	0.78	0.53	0.64	0.53	0.44
Control Delay	53.1	9.4	16.6	16.5	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	9.4	16.6	16.5	11.1
LOS	D	A	B	B	B
Approach Delay	31.1		16.6		11.8
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street



Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	240	244	1211	154	1062
v/c Ratio	0.78	0.53	0.64	0.53	0.44
Control Delay	53.1	9.4	16.6	16.5	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	9.4	16.6	16.5	11.1
Queue Length 50th (ft)	130	4	235	70	274
Queue Length 95th (ft)	206	65	345	m104	m378
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	511	1895	326	2423
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.48	0.64	0.47	0.44

Intersection Summary

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

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	235	239	1034	153	151	1041
Future Volume (veh/h)	235	239	1034	153	151	1041
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	240	244	1055	156	154	1062
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	313	279	1747	258	367	2431
Arrive On Green	0.18	0.18	0.75	0.75	0.07	0.92
Sat Flow, veh/h	1767	1572	3174	455	1767	3618
Grp Volume(v), veh/h	240	244	603	608	154	1062
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1773	1767	1763
Q Serve(g_s), s	11.6	13.6	13.9	14.0	3.1	3.8
Cycle Q Clear(g_c), s	11.6	13.6	13.9	14.0	3.1	3.8
Prop In Lane	1.00	1.00		0.26	1.00	
Lane Grp Cap(c), veh/h	313	279	999	1005	367	2431
V/C Ratio(X)	0.77	0.88	0.60	0.60	0.42	0.44
Avail Cap(c_a), veh/h	373	332	999	1005	445	2431
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	36.1	6.5	6.5	8.2	1.3
Incr Delay (d2), s/veh	6.1	17.7	2.7	2.7	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.5	4.1	4.2	1.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.4	53.8	9.2	9.2	8.5	1.9
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	484		1211			1216
Approach Delay, s/veh	47.6		9.2			2.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	57.0			68.1	21.9
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	5.1	16.0			5.8	15.6
Green Ext Time (p_c), s	0.0	9.9			10.4	0.3

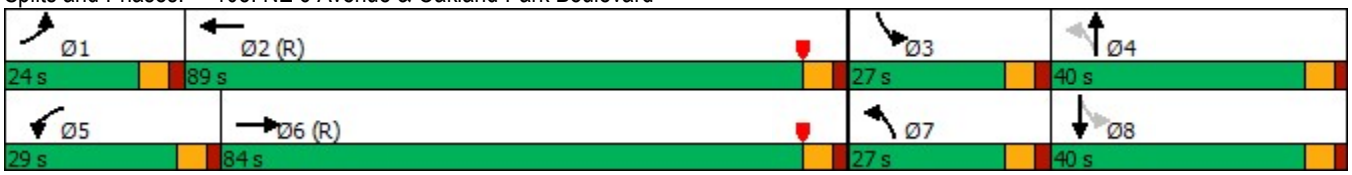
Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Timings
105: NE 6 Avenue & Oakland Park Boulevard

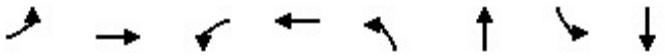
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	1324	113	1438	132	204	101	241
Future Volume (vph)	63	1324	113	1438	132	204	101	241
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	24.0	84.0	29.0	89.0	27.0	40.0	27.0	40.0
Total Split (%)	13.3%	46.7%	16.1%	49.4%	15.0%	22.2%	15.0%	22.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	21.1	87.3	16.8	83.0	55.5	39.6	48.4	36.1
Actuated g/C Ratio	0.12	0.48	0.09	0.46	0.31	0.22	0.27	0.20
v/c Ratio	0.34	0.69	0.77	0.72	0.70	0.70	0.46	0.91
Control Delay	86.5	25.1	108.5	41.3	62.5	73.6	50.2	96.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	25.1	108.5	41.3	62.5	73.6	50.2	96.9
LOS	F	C	F	D	E	E	D	F
Approach Delay		27.6		46.0		69.7		85.1
Approach LOS		C		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 139 (77%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 45.0	Intersection LOS: D
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard

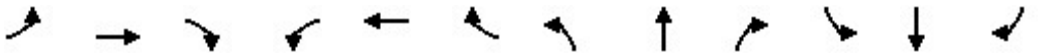


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	70	1652	126	1666	147	276	112	330
v/c Ratio	0.34	0.69	0.77	0.72	0.70	0.70	0.46	0.91
Control Delay	86.5	25.1	108.5	41.3	62.5	73.6	50.2	96.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	25.1	108.5	41.3	62.5	73.6	50.2	96.9
Queue Length 50th (ft)	82	284	148	576	126	292	94	372
Queue Length 95th (ft)	m132	374	221	632	189	417	149	#597
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	205	2405	223	2308	256	397	322	367
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	0.34	0.69	0.57	0.72	0.57	0.70	0.35	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1324	163	113	1438	61	132	204	44	101	241	56
Future Volume (veh/h)	63	1324	163	113	1438	61	132	204	44	101	241	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	70	1471	181	126	1598	68	147	227	49	112	268	62
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2362	290	144	2490	106	183	302	65	215	274	63
Arrive On Green	0.13	0.69	0.69	0.11	0.66	0.66	0.08	0.20	0.20	0.06	0.19	0.19
Sat Flow, veh/h	1767	4557	560	1767	4982	212	1767	1472	318	1767	1451	336
Grp Volume(v), veh/h	70	1090	562	126	1083	583	147	0	276	112	0	330
Grp Sat Flow(s),veh/h/ln	1767	1689	1740	1767	1689	1817	1767	0	1790	1767	0	1787
Q Serve(g_s), s	6.5	31.6	31.7	12.6	33.7	33.8	12.0	0.0	26.1	9.1	0.0	33.1
Cycle Q Clear(g_c), s	6.5	31.6	31.7	12.6	33.7	33.8	12.0	0.0	26.1	9.1	0.0	33.1
Prop In Lane	1.00		0.32	1.00		0.12	1.00		0.18	1.00		0.19
Lane Grp Cap(c), veh/h	177	1750	902	144	1688	908	183	0	367	215	0	338
V/C Ratio(X)	0.40	0.62	0.62	0.87	0.64	0.64	0.80	0.00	0.75	0.52	0.00	0.98
Avail Cap(c_a), veh/h	177	1750	902	226	1688	908	252	0	367	312	0	338
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.1	18.4	18.4	79.3	20.7	20.8	56.0	0.0	67.3	55.6	0.0	72.6
Incr Delay (d2), s/veh	4.8	1.2	2.4	13.2	1.9	3.5	8.6	0.0	7.6	0.7	0.0	42.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	11.5	12.1	6.2	12.6	14.0	5.8	0.0	12.8	4.2	0.0	19.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	19.6	20.8	92.5	22.6	24.2	64.5	0.0	74.8	56.3	0.0	115.2
LnGrp LOS	E	B	C	F	C	C	E	A	E	E	A	F
Approach Vol, veh/h		1722			1792			423			442	
Approach Delay, s/veh		22.4			28.1			71.3			100.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	96.0	17.1	42.9	20.7	99.3	20.0	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	83.0	21.0	34.0	23.0	78.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	8.5	35.8	11.1	28.1	14.6	33.7	14.0	35.1
Green Ext Time (p_c), s	0.0	18.4	0.1	0.5	0.1	18.0	0.1	0.0

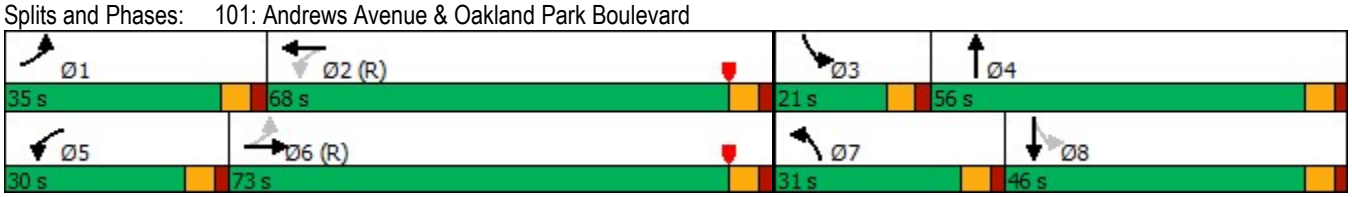
Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Timings
101: Andrews Avenue & Oakland Park Boulevard

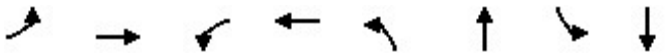
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	269	1084	207	1412	324	782	86	606
Future Volume (vph)	269	1084	207	1412	324	782	86	606
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	35.0	73.0	30.0	68.0	31.0	56.0	21.0	46.0
Total Split (%)	19.4%	40.6%	16.7%	37.8%	17.2%	31.1%	11.7%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	97.4	72.8	84.3	65.3	21.1	54.2	53.1	43.1
Actuated g/C Ratio	0.54	0.40	0.47	0.36	0.12	0.30	0.30	0.24
v/c Ratio	0.93	0.69	0.84	0.87	0.84	0.92	0.64	0.93
Control Delay	92.5	46.1	76.6	94.5	92.8	71.0	60.6	83.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.5	46.1	76.6	94.5	92.8	71.0	60.6	83.1
LOS	F	D	E	F	F	E	E	F
Approach Delay		53.9		92.4		76.7		80.8
Approach LOS		D		F		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 114 (63%), 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: 75.6	Intersection LOS: E
Intersection Capacity Utilization 95.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard



Queues
101: Andrews Avenue & Oakland Park Boulevard

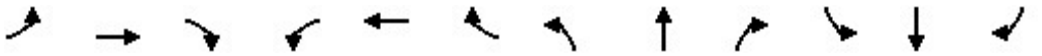


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	277	1377	213	1571	334	951	89	766
v/c Ratio	0.93	0.69	0.84	0.87	0.84	0.92	0.64	0.93
Control Delay	92.5	46.1	76.6	94.5	92.8	71.0	60.6	83.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.5	46.1	76.6	94.5	92.8	71.0	60.6	83.1
Queue Length 50th (ft)	274	490	242	624	179	606	67	463
Queue Length 95th (ft)	#439	566	m326	677	239	#744	119	#625
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	321	1999	304	1810	472	1036	187	823
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	0.86	0.69	0.70	0.87	0.71	0.92	0.48	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	1084	251	207	1412	112	324	782	141	86	606	137
Future Volume (veh/h)	269	1084	251	207	1412	112	324	782	141	86	606	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	277	1118	259	213	1456	115	334	806	145	89	625	141
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	1869	433	293	2058	163	375	840	151	135	633	142
Arrive On Green	0.14	0.60	0.60	0.11	0.57	0.57	0.04	0.09	0.09	0.05	0.22	0.22
Sat Flow, veh/h	1767	4109	952	1767	4786	378	3428	2975	535	1767	2847	641
Grp Volume(v), veh/h	277	919	458	213	1027	544	334	478	473	89	387	379
Grp Sat Flow(s),veh/h/ln	1767	1689	1684	1767	1689	1787	1714	1763	1748	1767	1763	1725
Q Serve(g_s), s	16.7	30.3	30.3	12.3	39.4	39.4	17.5	48.6	48.6	7.0	39.3	39.5
Cycle Q Clear(g_c), s	16.7	30.3	30.3	12.3	39.4	39.4	17.5	48.6	48.6	7.0	39.3	39.5
Prop In Lane	1.00		0.57	1.00		0.21	1.00		0.31	1.00		0.37
Lane Grp Cap(c), veh/h	294	1536	766	293	1452	768	375	498	494	135	392	383
V/C Ratio(X)	0.94	0.60	0.60	0.73	0.71	0.71	0.89	0.96	0.96	0.66	0.99	0.99
Avail Cap(c_a), veh/h	393	1536	766	387	1452	768	476	498	494	195	392	383
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.59	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	25.4	25.4	27.7	30.4	30.4	85.7	80.6	80.6	54.6	69.7	69.8
Incr Delay (d2), s/veh	23.8	1.7	3.4	1.6	1.7	3.3	13.7	30.0	30.2	2.1	41.7	43.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	11.8	12.2	5.2	15.5	16.7	8.9	27.4	27.2	3.2	22.4	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	27.1	28.8	29.4	32.1	33.7	99.3	110.6	110.7	56.7	111.5	112.9
LnGrp LOS	E	C	C	C	C	C	F	F	F	E	F	F
Approach Vol, veh/h		1654			1784			1285			855	
Approach Delay, s/veh		33.0			32.3			107.7			106.4	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	83.4	14.9	56.8	20.4	87.9	25.7	46.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.0	62.0	15.0	50.0	24.0	67.0	25.0	40.0
Max Q Clear Time (g_c+I1), s	18.7	41.4	9.0	50.6	14.3	32.3	19.5	41.5
Green Ext Time (p_c), s	0.2	11.5	0.0	0.0	0.1	12.7	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

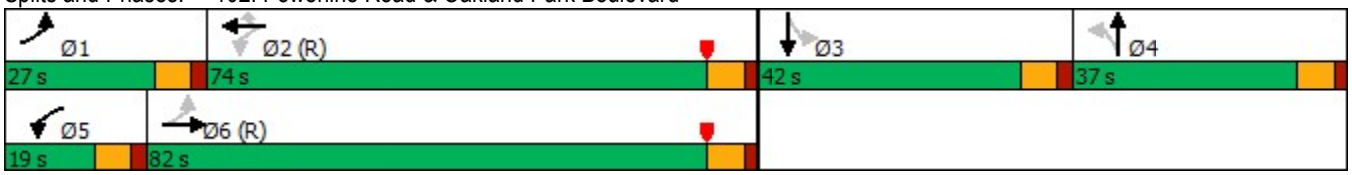
Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	228	1749	140	1671	152	379	586	185	648
Future Volume (vph)	228	1749	140	1671	152	379	586	185	648
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	37.0	37.0	38.0	38.0
Total Split (s)	27.0	82.0	19.0	74.0	74.0	37.0	37.0	42.0	42.0
Total Split (%)	15.0%	45.6%	10.6%	41.1%	41.1%	20.6%	20.6%	23.3%	23.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	94.0	75.3	78.7	67.0	67.0	30.0	30.0	35.0	35.0
Actuated g/C Ratio	0.52	0.42	0.44	0.37	0.37	0.17	0.17	0.19	0.19
v/c Ratio	0.99	1.01	0.92	0.91	0.23	2.17	1.73dl	2.39	1.24
Control Delay	110.4	72.2	100.3	61.8	6.0	591.9	361.4	690.8	176.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.4	72.2	100.3	61.8	6.0	591.9	361.4	690.8	176.5
LOS	F	E	F	E	A	F	F	F	F
Approach Delay		76.0		60.2			400.8		271.7
Approach LOS		E		E			F		F

Intersection Summary		
Cycle Length: 180		
Actuated Cycle Length: 180		
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow		
Natural Cycle: 135		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 2.39		
Intersection Signal Delay: 158.7	Intersection LOS: F	
Intersection Capacity Utilization 112.5%	ICU Level of Service H	
Analysis Period (min) 15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	2087	143	1705	155	193	937	189	832
v/c Ratio	0.99	1.01	0.92	0.91	0.23	2.17	1.73dl	2.39	1.24
Control Delay	110.4	72.2	100.3	61.8	6.0	591.9	361.4	690.8	176.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.4	72.2	100.3	61.8	6.0	591.9	361.4	690.8	176.5
Queue Length 50th (ft)	228	~919	119	701	2	~420	~623	~188	~633
Queue Length 95th (ft)	#423	#1024	#265	767	55	#629	#728	#278	#773
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	235	2072	158	1874	671	89	552	79	670
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	0.99	1.01	0.91	0.91	0.23	2.17	1.70	2.39	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Exhibit F

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	1749	296	140	1671	152	379	586	142	185	648	168
Future Volume (vph)	228	1749	296	140	1671	152	379	586	142	185	648	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4927		1752	5036	1547	1505	4589		3400	3383	
Flt Permitted	0.05	1.00		0.06	1.00	1.00	0.34	0.70		0.11	1.00	
Satd. Flow (perm)	100	4927		110	5036	1547	536	3237		409	3383	
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)	233	1785	302	143	1705	155	387	598	145	189	661	171
RTOR Reduction (vph)	0	13	0	0	0	95	0	13	0	0	13	0
Lane Group Flow (vph)	233	2074	0	143	1705	60	193	924	0	189	819	0
Confl. Peds. (#/hr)	1					1	3		2	2		3
Confl. Bikes (#/hr)												2
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	94.0	75.3		78.7	67.0	67.0	30.0	30.0		35.0	35.0	
Effective Green, g (s)	94.0	75.3		78.7	67.0	67.0	30.0	30.0		35.0	35.0	
Actuated g/C Ratio	0.52	0.42		0.44	0.37	0.37	0.17	0.17		0.19	0.19	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	235	2061		154	1874	575	89	539		79	657	
v/s Ratio Prot	c0.11	c0.42		0.06	0.34						0.24	
v/s Ratio Perm	0.41			0.34		0.04	c0.36	0.29		c0.46		
v/c Ratio	0.99	1.01		0.93	0.91	0.10	2.17	1.73dl		2.39	1.25	
Uniform Delay, d1	61.8	52.4		52.3	53.6	36.9	75.0	75.0		72.5	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	56.0	21.4		50.6	8.1	0.4	561.0	329.0		663.5	123.5	
Delay (s)	117.8	73.7		102.8	61.7	37.3	636.0	404.0		736.0	196.0	
Level of Service	F	E		F	E	D	F	F		F	F	
Approach Delay (s)		78.2			62.8			443.6			296.0	
Approach LOS		E			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	171.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	112.5%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

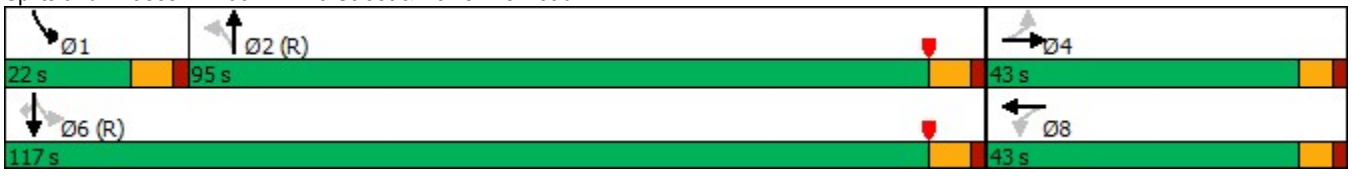
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	20	7	132	22	6	934	99	974	32
Future Volume (vph)	20	7	132	22	6	934	99	974	32
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	43.0	43.0	43.0	43.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	43.0	43.0	43.0	43.0	95.0	95.0	22.0	117.0	117.0
Total Split (%)	26.9%	26.9%	26.9%	26.9%	59.4%	59.4%	13.8%	73.1%	73.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7	111.8	111.8	125.3	125.3	125.3
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.70	0.70	0.78	0.78	0.78
v/c Ratio	0.28	0.08	0.80	0.54	0.02	0.46	0.31	0.40	0.03
Control Delay	68.7	32.9	94.8	17.1	10.0	12.2	7.0	6.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	32.9	94.8	17.1	10.0	12.2	7.0	6.5	1.6
LOS	E	C	F	B	A	B	A	A	A
Approach Delay		51.6		50.4		12.1		6.4	
Approach LOS		D		D		B		A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 67 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: NW 29 Street & Powerline Road



Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	22	20	148	197	7	1106	111	1094	36
v/c Ratio	0.28	0.08	0.80	0.54	0.02	0.46	0.31	0.40	0.03
Control Delay	68.7	32.9	94.8	17.1	10.0	12.2	7.0	6.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	32.9	94.8	17.1	10.0	12.2	7.0	6.5	1.6
Queue Length 50th (ft)	21	7	152	23	2	247	24	166	0
Queue Length 95th (ft)	50	32	220	96	10	361	50	250	10
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	133	397	317	502	336	2428	428	2744	1201
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	0.17	0.05	0.47	0.39	0.02	0.46	0.26	0.40	0.03

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	7	11	132	22	153	6	934	51	99	974	32
Future Volume (veh/h)	20	7	11	132	22	153	6	934	51	99	974	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	8	12	148	25	172	7	1049	57	111	1094	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	101	151	238	31	210	400	2357	128	429	2709	1182
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.92	0.92	0.92	0.04	1.00	1.00
Sat Flow, veh/h	1176	670	1005	1381	203	1400	511	3396	184	1767	3526	1538
Grp Volume(v), veh/h	22	0	20	148	0	197	7	544	562	111	1094	36
Grp Sat Flow(s),veh/h/ln	1176	0	1675	1381	0	1604	511	1763	1817	1767	1763	1538
Q Serve(g_s), s	3.0	0.0	1.6	16.5	0.0	19.0	0.2	6.4	6.4	2.9	0.0	0.0
Cycle Q Clear(g_c), s	22.0	0.0	1.6	18.2	0.0	19.0	0.2	6.4	6.4	2.9	0.0	0.0
Prop In Lane	1.00		0.60	1.00		0.87	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	82	0	252	238	0	241	400	1224	1262	429	2709	1182
V/C Ratio(X)	0.27	0.00	0.08	0.62	0.00	0.82	0.02	0.44	0.45	0.26	0.40	0.03
Avail Cap(c_a), veh/h	177	0	387	350	0	371	400	1224	1262	541	2709	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	76.5	0.0	58.5	66.3	0.0	65.9	1.9	2.1	2.1	6.1	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	4.4	0.1	1.2	1.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	5.9	0.0	8.1	0.0	2.0	2.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	0.0	58.5	67.3	0.0	70.2	2.0	3.3	3.3	6.1	0.0	0.0
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		42			345			1113			1241	
Approach Delay, s/veh		68.3			69.0			3.3			0.6	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.9	118.1		30.0		130.0		30.0				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	15.0	88.0		37.0		110.0		37.0				
Max Q Clear Time (g_c+I1), s	4.9	8.4		24.0		2.0		21.0				
Green Ext Time (p_c), s	0.1	10.2		0.0		11.4		0.9				

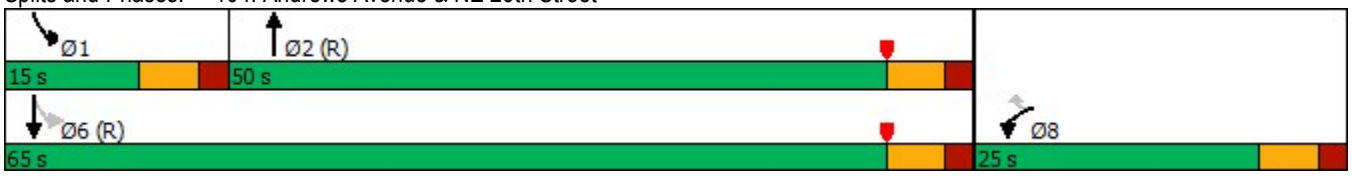
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	244	248	1073	157	1080
Future Volume (vph)	244	248	1073	157	1080
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.1	16.1	49.0	61.9	61.9
Actuated g/C Ratio	0.18	0.18	0.54	0.69	0.69
v/c Ratio	0.80	0.55	0.67	0.58	0.46
Control Delay	54.1	10.7	17.6	19.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	10.7	17.6	19.6	11.7
LOS	D	B	B	B	B
Approach Delay	32.2		17.6		12.7
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street



Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	249	253	1257	160	1102
v/c Ratio	0.80	0.55	0.67	0.58	0.46
Control Delay	54.1	10.7	17.6	19.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	10.7	17.6	19.6	11.7
Queue Length 50th (ft)	135	11	255	78	315
Queue Length 95th (ft)	#215	74	366	m110	m392
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	507	1876	311	2411
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.50	0.67	0.51	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	244	248	1073	159	157	1080
Future Volume (veh/h)	244	248	1073	159	157	1080
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	249	253	1095	162	160	1102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	323	287	1724	254	352	2412
Arrive On Green	0.18	0.18	0.74	0.74	0.08	0.91
Sat Flow, veh/h	1767	1572	3174	455	1767	3618
Grp Volume(v), veh/h	249	253	625	632	160	1102
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1773	1767	1763
Q Serve(g_s), s	12.1	14.1	15.5	15.6	3.3	4.3
Cycle Q Clear(g_c), s	12.1	14.1	15.5	15.6	3.3	4.3
Prop In Lane	1.00	1.00		0.26	1.00	
Lane Grp Cap(c), veh/h	323	287	986	992	352	2412
V/C Ratio(X)	0.77	0.88	0.63	0.64	0.45	0.46
Avail Cap(c_a), veh/h	373	332	986	992	426	2412
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	35.8	7.1	7.1	8.9	1.5
Incr Delay (d2), s/veh	6.9	19.2	3.1	3.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	6.8	4.6	4.6	1.1	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.9	55.1	10.2	10.2	9.3	2.1
LnGrp LOS	D	E	B	B	A	A
Approach Vol, veh/h	502		1257			1262
Approach Delay, s/veh	48.5		10.2			3.0
Approach LOS	D		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.2	56.3			67.6	22.4
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	5.3	17.6			6.3	16.1
Green Ext Time (p_c), s	0.0	10.2			11.0	0.3

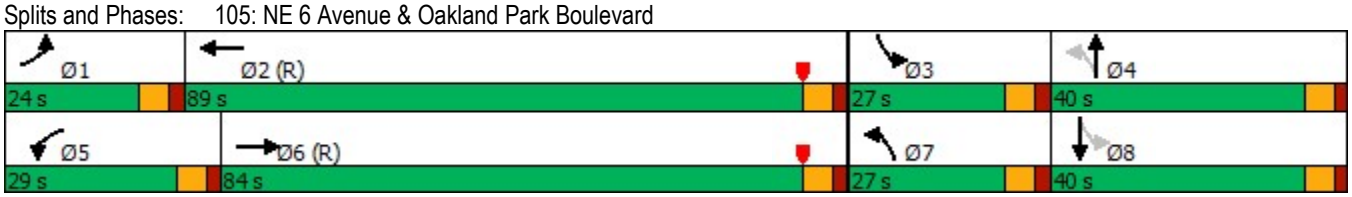
Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Timings
105: NE 6 Avenue & Oakland Park Boulevard

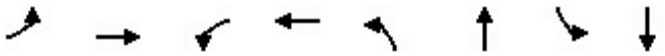
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	1373	118	1492	137	212	104	250
Future Volume (vph)	66	1373	118	1492	137	212	104	250
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	24.0	84.0	29.0	89.0	27.0	40.0	27.0	40.0
Total Split (%)	13.3%	46.7%	16.1%	49.4%	15.0%	22.2%	15.0%	22.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	19.2	85.1	17.1	83.0	57.4	41.3	50.2	37.7
Actuated g/C Ratio	0.11	0.47	0.10	0.46	0.32	0.23	0.28	0.21
v/c Ratio	0.39	0.73	0.79	0.75	0.71	0.69	0.47	0.90
Control Delay	87.3	27.7	109.5	42.3	61.9	72.7	49.6	94.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.3	27.7	109.5	42.3	61.9	72.7	49.6	94.2
LOS	F	C	F	D	E	E	D	F
Approach Delay		30.1		47.1		69.0		82.9
Approach LOS		C		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 139 (77%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 46.1	Intersection LOS: D
Intersection Capacity Utilization 81.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard

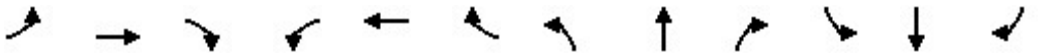


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	1714	131	1728	152	287	116	342
v/c Ratio	0.39	0.73	0.79	0.75	0.71	0.69	0.47	0.90
Control Delay	87.3	27.7	109.5	42.3	61.9	72.7	49.6	94.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.3	27.7	109.5	42.3	61.9	72.7	49.6	94.2
Queue Length 50th (ft)	86	296	154	609	131	306	98	390
Queue Length 95th (ft)	m128	404	229	667	196	437	153	#629
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	187	2344	223	2308	258	413	326	379
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	0.39	0.73	0.59	0.75	0.59	0.69	0.36	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1373	169	118	1492	63	137	212	46	104	250	58
Future Volume (veh/h)	66	1373	169	118	1492	63	137	212	46	104	250	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	1526	188	131	1658	70	152	236	51	116	278	64
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2338	288	149	2480	105	182	302	65	211	274	63
Arrive On Green	0.13	0.68	0.68	0.11	0.66	0.66	0.08	0.21	0.21	0.06	0.19	0.19
Sat Flow, veh/h	1767	4557	561	1767	4984	210	1767	1472	318	1767	1453	335
Grp Volume(v), veh/h	73	1130	584	131	1123	605	152	0	287	116	0	342
Grp Sat Flow(s),veh/h/ln	1767	1689	1740	1767	1689	1817	1767	0	1790	1767	0	1788
Q Serve(g_s), s	6.8	34.5	34.6	13.1	36.3	36.4	12.4	0.0	27.3	9.5	0.0	34.0
Cycle Q Clear(g_c), s	6.8	34.5	34.6	13.1	36.3	36.4	12.4	0.0	27.3	9.5	0.0	34.0
Prop In Lane	1.00		0.32	1.00		0.12	1.00		0.18	1.00		0.19
Lane Grp Cap(c), veh/h	177	1733	893	149	1680	904	182	0	368	211	0	338
V/C Ratio(X)	0.41	0.65	0.65	0.88	0.67	0.67	0.84	0.00	0.78	0.55	0.00	1.01
Avail Cap(c_a), veh/h	177	1733	893	226	1680	904	246	0	368	304	0	338
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.2	19.4	19.4	79.0	21.4	21.4	55.8	0.0	67.7	55.6	0.0	73.0
Incr Delay (d2), s/veh	4.7	1.3	2.5	15.5	2.1	3.9	12.8	0.0	9.5	0.8	0.0	52.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.6	13.3	6.5	13.7	15.2	6.2	0.0	13.6	4.3	0.0	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.9	20.7	21.9	94.5	23.6	25.4	68.6	0.0	77.2	56.5	0.0	125.3
LnGrp LOS	E	C	C	F	C	C	E	A	E	E	A	F
Approach Vol, veh/h		1787			1859			439			458	
Approach Delay, s/veh		23.4			29.2			74.2			107.9	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	95.6	17.5	43.0	21.2	98.4	20.4	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	83.0	21.0	34.0	23.0	78.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	8.8	38.4	11.5	29.3	15.1	36.6	14.4	36.0
Green Ext Time (p_c), s	0.0	19.2	0.1	0.5	0.1	18.6	0.1	0.0

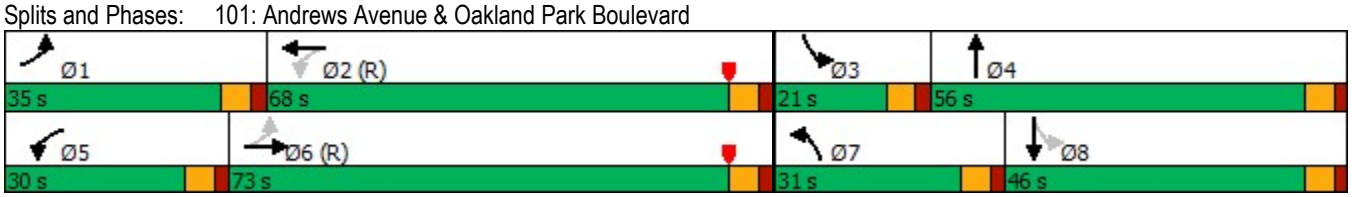
Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Timings
101: Andrews Avenue & Oakland Park Boulevard

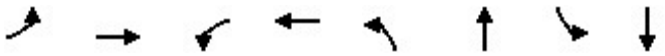
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	269	1084	207	1412	338	787	93	606
Future Volume (vph)	269	1084	207	1412	338	787	93	606
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	35.0	73.0	30.0	68.0	31.0	56.0	21.0	46.0
Total Split (%)	19.4%	40.6%	16.7%	37.8%	17.2%	31.1%	11.7%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	96.7	71.9	83.6	64.5	21.7	54.5	53.8	43.3
Actuated g/C Ratio	0.54	0.40	0.46	0.36	0.12	0.30	0.30	0.24
v/c Ratio	0.93	0.70	0.84	0.88	0.85	0.93	0.68	0.93
Control Delay	92.3	46.7	76.9	95.0	93.1	72.5	63.2	82.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.3	46.7	76.9	95.0	93.1	72.5	63.2	82.4
LOS	F	D	E	F	F	E	E	F
Approach Delay		54.3		92.9		77.9		80.2
Approach LOS		D		F		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 114 (63%), 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: 76.1	Intersection LOS: E
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard



Queues
101: Andrews Avenue & Oakland Park Boulevard



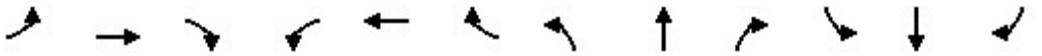
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	277	1377	213	1571	348	969	96	766
v/c Ratio	0.93	0.70	0.84	0.88	0.85	0.93	0.68	0.93
Control Delay	92.3	46.7	76.9	95.0	93.1	72.5	63.2	82.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.3	46.7	76.9	95.0	93.1	72.5	63.2	82.4
Queue Length 50th (ft)	273	490	242	623	188	613	73	465
Queue Length 95th (ft)	#437	566	m326	677	253	#774	130	#625
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	321	1976	301	1789	472	1041	186	827
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	0.86	0.70	0.71	0.88	0.74	0.93	0.52	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Exhibit F

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	1084	251	207	1412	112	338	787	153	93	606	137
Future Volume (veh/h)	269	1084	251	207	1412	112	338	787	153	93	606	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	277	1118	259	213	1456	115	348	811	158	96	625	141
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	294	1851	429	292	2033	161	388	829	162	137	633	142
Arrive On Green	0.14	0.60	0.60	0.11	0.56	0.56	0.08	0.19	0.19	0.05	0.22	0.22
Sat Flow, veh/h	1767	4109	952	1767	4786	378	3428	2932	571	1767	2847	641
Grp Volume(v), veh/h	277	919	458	213	1027	544	348	488	481	96	387	379
Grp Sat Flow(s),veh/h/ln	1767	1689	1683	1767	1689	1787	1714	1763	1741	1767	1763	1725
Q Serve(g_s), s	17.0	30.8	30.8	12.4	40.0	40.0	18.1	49.5	49.5	7.5	39.3	39.5
Cycle Q Clear(g_c), s	17.0	30.8	30.8	12.4	40.0	40.0	18.1	49.5	49.5	7.5	39.3	39.5
Prop In Lane	1.00		0.57	1.00		0.21	1.00		0.33	1.00		0.37
Lane Grp Cap(c), veh/h	294	1522	759	292	1434	759	388	499	492	137	392	383
V/C Ratio(X)	0.94	0.60	0.60	0.73	0.72	0.72	0.90	0.98	0.98	0.70	0.99	0.99
Avail Cap(c_a), veh/h	390	1522	759	385	1434	759	476	499	492	192	392	383
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	26.0	26.0	28.3	31.2	31.2	82.1	72.4	72.4	54.5	69.7	69.8
Incr Delay (d2), s/veh	24.1	1.8	3.5	1.7	1.8	3.4	15.4	34.4	34.7	2.5	41.7	43.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	12.0	12.4	5.2	15.8	17.1	9.1	27.9	27.5	3.5	22.4	22.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	27.8	29.5	30.0	33.0	34.6	97.5	106.8	107.1	56.9	111.5	112.9
LnGrp LOS	E	C	C	C	C	C	F	F	F	E	F	F
Approach Vol, veh/h		1654			1784			1317			862	
Approach Delay, s/veh		33.8			33.2			104.5			106.0	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.2	82.5	15.4	56.9	20.5	87.1	26.4	46.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.0	62.0	15.0	50.0	24.0	67.0	25.0	40.0
Max Q Clear Time (g_c+I1), s	19.0	42.0	9.5	51.5	14.4	32.8	20.1	41.5
Green Ext Time (p_c), s	0.2	11.3	0.0	0.0	0.1	12.7	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

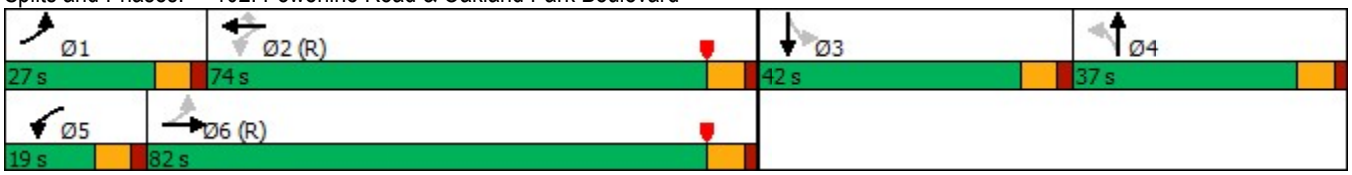
Timings
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	228	1749	140	1685	152	379	586	185	648
Future Volume (vph)	228	1749	140	1685	152	379	586	185	648
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		3
Permitted Phases	6		2		2	4		3	
Detector Phase	1	6	5	2	2	4	4	3	3
Switch Phase									
Minimum Initial (s)	4.0	10.0	4.0	10.0	10.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	39.0	11.0	39.0	39.0	37.0	37.0	38.0	38.0
Total Split (s)	27.0	82.0	19.0	74.0	74.0	37.0	37.0	42.0	42.0
Total Split (%)	15.0%	45.6%	10.6%	41.1%	41.1%	20.6%	20.6%	23.3%	23.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	94.0	75.3	78.7	67.0	67.0	30.0	30.0	35.0	35.0
Actuated g/C Ratio	0.52	0.42	0.44	0.37	0.37	0.17	0.17	0.19	0.19
v/c Ratio	0.99	1.02	0.92	0.92	0.23	2.17	1.73dl	2.39	1.24
Control Delay	110.4	74.4	100.3	62.5	6.0	591.9	361.4	690.8	176.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.4	74.4	100.3	62.5	6.0	591.9	361.4	690.8	176.5
LOS	F	E	F	E	A	F	F	F	F
Approach Delay		78.0		60.9			400.8		271.7
Approach LOS		E		E			F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 20 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.39	
Intersection Signal Delay: 159.1	Intersection LOS: F
Intersection Capacity Utilization 112.9%	ICU Level of Service H
Analysis Period (min) 15	

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 102: Powerline Road & Oakland Park Boulevard



Queues
102: Powerline Road & Oakland Park Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	2108	143	1719	155	193	937	189	832
v/c Ratio	0.99	1.02	0.92	0.92	0.23	2.17	1.73dl	2.39	1.24
Control Delay	110.4	74.4	100.3	62.5	6.0	591.9	361.4	690.8	176.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.4	74.4	100.3	62.5	6.0	591.9	361.4	690.8	176.5
Queue Length 50th (ft)	228	~957	119	710	2	~420	~623	~188	~633
Queue Length 95th (ft)	#423	#1041	#265	776	55	#629	#728	#278	#773
Internal Link Dist (ft)		715		592			1584		537
Turn Bay Length (ft)	515		350		160	390		260	
Base Capacity (vph)	235	2072	158	1874	671	89	552	79	670
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	0.99	1.02	0.91	0.92	0.23	2.17	1.70	2.39	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Exhibit F

HCM Signalized Intersection Capacity Analysis
102: Powerline Road & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	228	1749	317	140	1685	152	379	586	142	185	648	168
Future Volume (vph)	228	1749	317	140	1685	152	379	586	142	185	648	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	0.86	0.86		0.97	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	0.99		0.95	1.00	
Satd. Flow (prot)	1752	4920		1752	5036	1547	1505	4589		3400	3383	
Flt Permitted	0.05	1.00		0.06	1.00	1.00	0.34	0.70		0.11	1.00	
Satd. Flow (perm)	100	4920		110	5036	1547	536	3237		409	3383	
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)	233	1785	323	143	1719	155	387	598	145	189	661	171
RTOR Reduction (vph)	0	15	0	0	0	95	0	13	0	0	13	0
Lane Group Flow (vph)	233	2093	0	143	1719	60	193	924	0	189	819	0
Confl. Peds. (#/hr)	1					1	3		2	2		3
Confl. Bikes (#/hr)												2
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			3	
Permitted Phases	6			2		2	4			3		
Actuated Green, G (s)	94.0	75.3		78.7	67.0	67.0	30.0	30.0		35.0	35.0	
Effective Green, g (s)	94.0	75.3		78.7	67.0	67.0	30.0	30.0		35.0	35.0	
Actuated g/C Ratio	0.52	0.42		0.44	0.37	0.37	0.17	0.17		0.19	0.19	
Clearance Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	235	2058		154	1874	575	89	539		79	657	
v/s Ratio Prot	c0.11	c0.43		0.06	0.34						0.24	
v/s Ratio Perm	0.41			0.34		0.04	c0.36	0.29		c0.46		
v/c Ratio	0.99	1.02		0.93	0.92	0.10	2.17	1.73dl		2.39	1.25	
Uniform Delay, d1	61.8	52.4		52.4	53.9	36.9	75.0	75.0		72.5	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	56.0	24.3		50.6	8.6	0.4	561.0	329.0		663.5	123.5	
Delay (s)	117.9	76.6		103.0	62.5	37.3	636.0	404.0		736.0	196.0	
Level of Service	F	E		F	E	D	F	F		F	F	
Approach Delay (s)		80.7			63.4			443.6			296.0	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	172.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	112.9%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

HCM 6th Signalized Intersection Summary
102: Powerline Road & Oakland Park Boulevard

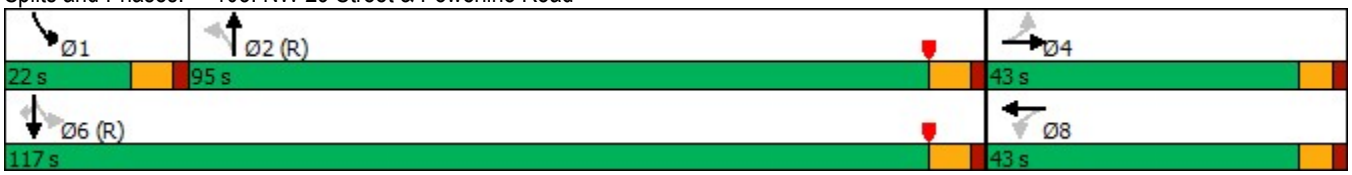
HCM 6th Edition methodology expects strict NEMA phasing.

Timings
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	20	7	132	22	6	934	120	974	32
Future Volume (vph)	20	7	132	22	6	934	120	974	32
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		2	1	6	
Permitted Phases	4		8		2		6		6
Detector Phase	4	4	8	8	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	10.0	10.0	4.0	10.0	10.0
Minimum Split (s)	43.0	43.0	43.0	43.0	28.0	28.0	11.0	28.0	28.0
Total Split (s)	43.0	43.0	43.0	43.0	95.0	95.0	22.0	117.0	117.0
Total Split (%)	26.9%	26.9%	26.9%	26.9%	59.4%	59.4%	13.8%	73.1%	73.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7	111.2	111.2	125.3	125.3	125.3
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.70	0.70	0.78	0.78	0.78
v/c Ratio	0.28	0.08	0.80	0.54	0.02	0.46	0.38	0.40	0.03
Control Delay	68.7	32.9	94.8	17.1	10.3	12.5	7.8	6.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	32.9	94.8	17.1	10.3	12.5	7.8	6.5	1.6
LOS	E	C	F	B	B	B	A	A	A
Approach Delay		51.6		50.4		12.4		6.5	
Approach LOS		D		D		B		A	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 160	
Offset: 67 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 103: NW 29 Street & Powerline Road

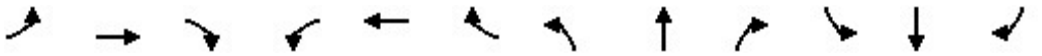


Queues
103: NW 29 Street & Powerline Road

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	22	20	148	197	7	1106	135	1094	36
v/c Ratio	0.28	0.08	0.80	0.54	0.02	0.46	0.38	0.40	0.03
Control Delay	68.7	32.9	94.8	17.1	10.3	12.5	7.8	6.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	32.9	94.8	17.1	10.3	12.5	7.8	6.5	1.6
Queue Length 50th (ft)	21	7	152	23	2	250	29	166	0
Queue Length 95th (ft)	50	32	220	96	10	367	59	250	10
Internal Link Dist (ft)		318		329		280		1584	
Turn Bay Length (ft)	100		100		70		320		320
Base Capacity (vph)	133	397	317	502	334	2416	427	2744	1201
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	0.17	0.05	0.47	0.39	0.02	0.46	0.32	0.40	0.03

Intersection Summary

HCM 6th Signalized Intersection Summary
103: NW 29 Street & Powerline Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	7	11	132	22	153	6	934	51	120	974	32
Future Volume (veh/h)	20	7	11	132	22	153	6	934	51	120	974	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	8	12	148	25	172	7	1049	57	135	1094	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	101	151	238	31	210	398	2342	127	434	2709	1182
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.92	0.92	0.92	0.05	1.00	1.00
Sat Flow, veh/h	1176	670	1005	1381	203	1400	511	3396	184	1767	3526	1538
Grp Volume(v), veh/h	22	0	20	148	0	197	7	544	562	135	1094	36
Grp Sat Flow(s),veh/h/ln	1176	0	1675	1381	0	1604	511	1763	1817	1767	1763	1538
Q Serve(g_s), s	3.0	0.0	1.6	16.5	0.0	19.0	0.2	6.9	6.9	3.5	0.0	0.0
Cycle Q Clear(g_c), s	22.0	0.0	1.6	18.2	0.0	19.0	0.2	6.9	6.9	3.5	0.0	0.0
Prop In Lane	1.00		0.60	1.00		0.87	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	82	0	252	238	0	241	398	1216	1253	434	2709	1182
V/C Ratio(X)	0.27	0.00	0.08	0.62	0.00	0.82	0.02	0.45	0.45	0.31	0.40	0.03
Avail Cap(c_a), veh/h	177	0	387	350	0	371	398	1216	1253	537	2709	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	76.5	0.0	58.5	66.3	0.0	65.9	2.1	2.3	2.3	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	4.4	0.1	1.2	1.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	5.9	0.0	8.1	0.0	2.1	2.2	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.2	0.0	58.5	67.3	0.0	70.2	2.1	3.5	3.5	6.3	0.0	0.0
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		42			345			1113			1265	
Approach Delay, s/veh		68.3			69.0			3.5			0.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.6	117.4		30.0		130.0		30.0				
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s	15.0	88.0		37.0		110.0		37.0				
Max Q Clear Time (g_c+I1), s	5.5	8.9		24.0		2.0		21.0				
Green Ext Time (p_c), s	0.1	10.2		0.0		11.4		0.9				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Timings
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	248	267	1080	157	1080
Future Volume (vph)	248	267	1080	157	1080
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	6.0	6.0	12.0	4.0	12.0
Minimum Split (s)	24.0	24.0	24.0	15.0	24.0
Total Split (s)	25.0	25.0	50.0	15.0	65.0
Total Split (%)	27.8%	27.8%	55.6%	16.7%	72.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.2	16.2	48.8	61.8	61.8
Actuated g/C Ratio	0.18	0.18	0.54	0.69	0.69
v/c Ratio	0.80	0.58	0.68	0.58	0.46
Control Delay	54.5	12.6	17.8	20.1	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	12.6	17.8	20.1	12.0
LOS	D	B	B	C	B
Approach Delay	32.8		17.8		13.0
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 33 (37%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 104: Andrews Avenue & NE 26th Street

Queues
104: Andrews Avenue & NE 26th Street

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	253	272	1264	160	1102
v/c Ratio	0.80	0.58	0.68	0.58	0.46
Control Delay	54.5	12.6	17.8	20.1	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	12.6	17.8	20.1	12.0
Queue Length 50th (ft)	137	21	259	79	331
Queue Length 95th (ft)	#221	91	370	m110	m394
Internal Link Dist (ft)	287		336		1615
Turn Bay Length (ft)				130	
Base Capacity (vph)	369	506	1870	308	2406
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.54	0.68	0.52	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
104: Andrews Avenue & NE 26th Street

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	248	267	1080	159	157	1080
Future Volume (veh/h)	248	267	1080	159	157	1080
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	253	272	1102	162	160	1102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	342	304	1688	248	342	2373
Arrive On Green	0.19	0.19	0.73	0.73	0.08	0.90
Sat Flow, veh/h	1767	1572	3177	452	1767	3618
Grp Volume(v), veh/h	253	272	629	635	160	1102
Grp Sat Flow(s),veh/h/ln	1767	1572	1763	1774	1767	1763
Q Serve(g_s), s	12.1	15.2	16.6	16.7	3.4	5.0
Cycle Q Clear(g_c), s	12.1	15.2	16.6	16.7	3.4	5.0
Prop In Lane	1.00	1.00		0.26	1.00	
Lane Grp Cap(c), veh/h	342	304	965	971	342	2373
V/C Ratio(X)	0.74	0.89	0.65	0.65	0.47	0.46
Avail Cap(c_a), veh/h	373	332	965	971	414	2373
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	35.4	7.8	7.8	9.7	1.8
Incr Delay (d2), s/veh	5.8	22.6	3.4	3.4	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	7.6	5.0	5.0	1.1	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.0	58.0	11.2	11.2	10.0	2.5
LnGrp LOS	D	E	B	B	B	A
Approach Vol, veh/h	525		1264			1262
Approach Delay, s/veh	49.3		11.2			3.4
Approach LOS	D		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.3	55.3			66.6	23.4
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0			59.0	19.0
Max Q Clear Time (g_c+I1), s	5.4	18.7			7.0	17.2
Green Ext Time (p_c), s	0.0	10.1			10.9	0.2

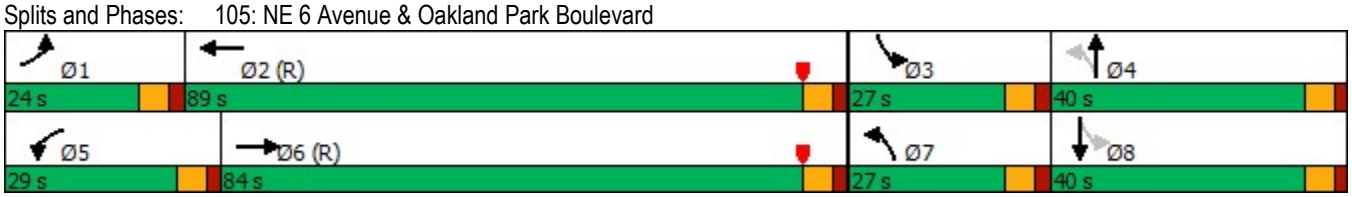
Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Timings
105: NE 6 Avenue & Oakland Park Boulevard

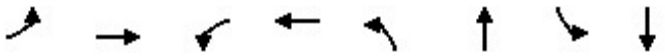
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	1381	130	1492	149	212	104	250
Future Volume (vph)	66	1381	130	1492	149	212	104	250
Turn Type	Prot	NA	Prot	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases					4		8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	4.0	10.0	4.0	10.0	4.0	6.0	4.0	6.0
Minimum Split (s)	10.0	30.0	10.0	30.0	10.0	40.0	10.0	40.0
Total Split (s)	24.0	84.0	29.0	89.0	27.0	40.0	27.0	40.0
Total Split (%)	13.3%	46.7%	16.1%	49.4%	15.0%	22.2%	15.0%	22.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	19.0	83.9	18.1	83.0	58.5	41.5	49.5	36.9
Actuated g/C Ratio	0.11	0.47	0.10	0.46	0.32	0.23	0.28	0.20
v/c Ratio	0.39	0.75	0.82	0.75	0.76	0.69	0.47	0.92
Control Delay	87.1	28.6	111.8	42.3	66.7	72.4	49.5	97.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.1	28.6	111.8	42.3	66.7	72.4	49.5	97.8
LOS	F	C	F	D	E	E	D	F
Approach Delay		31.0		47.7		70.3		85.6
Approach LOS		C		D		E		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 139 (77%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 47.1	Intersection LOS: D
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 105: NE 6 Avenue & Oakland Park Boulevard



Queues
105: NE 6 Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	1734	144	1728	166	287	116	342
v/c Ratio	0.39	0.75	0.82	0.75	0.76	0.69	0.47	0.92
Control Delay	87.1	28.6	111.8	42.3	66.7	72.4	49.5	97.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.1	28.6	111.8	42.3	66.7	72.4	49.5	97.8
Queue Length 50th (ft)	86	308	169	609	144	306	98	394
Queue Length 95th (ft)	m127	413	249	667	218	437	153	#629
Internal Link Dist (ft)		2163		358		357		314
Turn Bay Length (ft)	400		400		190		190	
Base Capacity (vph)	185	2309	223	2308	254	415	328	371
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	0.39	0.75	0.65	0.75	0.65	0.69	0.35	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary
105: NE 6 Avenue & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1381	180	130	1492	63	149	212	46	104	250	58
Future Volume (veh/h)	66	1381	180	130	1492	63	149	212	46	104	250	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	1534	200	144	1658	70	166	236	51	116	278	64
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	177	2260	294	162	2449	103	193	312	67	219	274	63
Arrive On Green	0.13	0.66	0.66	0.12	0.65	0.65	0.09	0.21	0.21	0.06	0.19	0.19
Sat Flow, veh/h	1767	4523	589	1767	4984	210	1767	1472	318	1767	1453	335
Grp Volume(v), veh/h	73	1145	589	144	1123	605	166	0	287	116	0	342
Grp Sat Flow(s),veh/h/ln	1767	1689	1734	1767	1689	1817	1767	0	1790	1767	0	1788
Q Serve(g_s), s	6.8	37.3	37.4	14.4	37.2	37.3	13.5	0.0	27.1	9.5	0.0	34.0
Cycle Q Clear(g_c), s	6.8	37.3	37.4	14.4	37.2	37.3	13.5	0.0	27.1	9.5	0.0	34.0
Prop In Lane	1.00		0.34	1.00		0.12	1.00		0.18	1.00		0.19
Lane Grp Cap(c), veh/h	177	1687	866	162	1659	893	193	0	379	219	0	338
V/C Ratio(X)	0.41	0.68	0.68	0.89	0.68	0.68	0.86	0.00	0.76	0.53	0.00	1.01
Avail Cap(c_a), veh/h	177	1687	866	226	1659	893	246	0	379	312	0	338
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	73.2	21.4	21.4	78.1	22.3	22.3	55.3	0.0	66.6	55.4	0.0	73.0
Incr Delay (d2), s/veh	4.6	1.5	2.9	20.9	2.2	4.1	17.9	0.0	7.7	0.7	0.0	52.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	13.8	14.6	7.4	14.1	15.7	7.1	0.0	13.3	4.3	0.0	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	22.8	24.2	99.1	24.6	26.4	73.2	0.0	74.3	56.2	0.0	125.3
LnGrp LOS	E	C	C	F	C	C	E	A	E	E	A	F
Approach Vol, veh/h		1807			1872			453			458	
Approach Delay, s/veh		25.5			30.9			73.9			107.8	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	94.4	17.5	44.1	22.5	95.9	21.6	40.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	18.0	83.0	21.0	34.0	23.0	78.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	8.8	39.3	11.5	29.1	16.4	39.4	15.5	36.0
Green Ext Time (p_c), s	0.0	19.0	0.1	0.5	0.1	18.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

HCM 6th TWSC
202: Driveway & Andrews Avenue

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	1129	47	0	1237
Future Vol, veh/h	0	31	1129	47	0	1237
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	34	1227	51	0	1345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	639	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	4.5	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3	-	-	-	-
Pot Cap-1 Maneuver	0	696	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	696	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	696	-
HCM Lane V/C Ratio	-	-	0.048	-
HCM Control Delay (s)	-	-	10.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Andrews Avenue & Oakland Park Boulevard

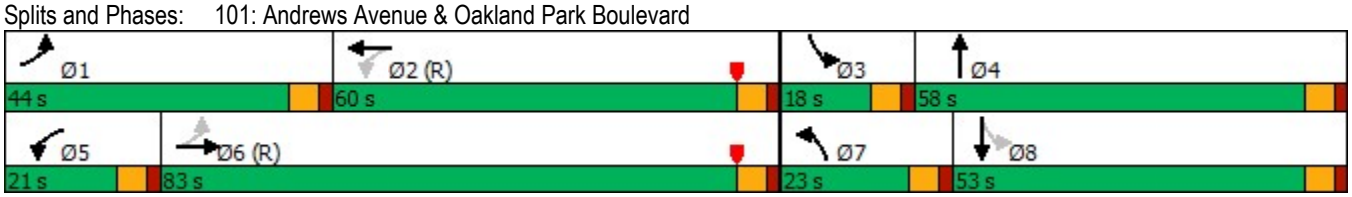
Signal Optimization – AM Peak Hour

Timings
101: Andrews Avenue & Oakland Park Boulevard

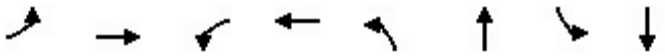
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	196	1529	128	1078	310	603	97	713
Future Volume (vph)	196	1529	128	1078	310	603	97	713
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	pm+pt	NA
Protected Phases	1	6	5	2	7	4	3	8
Permitted Phases	6		2				8	
Detector Phase	1	6	5	2	7	4	3	8
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	6.0	5.0	6.0
Minimum Split (s)	11.0	41.0	11.0	41.0	11.0	36.0	11.0	36.0
Total Split (s)	44.0	83.0	21.0	60.0	23.0	58.0	18.0	53.0
Total Split (%)	24.4%	46.1%	11.7%	33.3%	12.8%	32.2%	10.0%	29.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	97.4	79.3	84.4	71.7	17.0	53.1	57.9	47.0
Actuated g/C Ratio	0.54	0.44	0.47	0.40	0.09	0.30	0.32	0.26
v/c Ratio	0.69	0.84	0.80	0.60	1.00	0.79	0.56	1.00
Control Delay	37.3	48.9	79.2	89.3	117.8	71.4	48.7	94.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	48.9	79.2	89.3	117.8	71.4	48.7	94.6
LOS	D	D	E	F	F	E	D	F
Approach Delay		47.7		88.3		84.7		90.0
Approach LOS		D		F		F		F

Intersection Summary	
Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 110 (61%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 72.8	Intersection LOS: E
Intersection Capacity Utilization 96.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: Andrews Avenue & Oakland Park Boulevard



Queues
101: Andrews Avenue & Oakland Park Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	202	1833	132	1201	320	801	100	898
v/c Ratio	0.69	0.84	0.80	0.60	1.00	0.79	0.56	1.00
Control Delay	37.3	48.9	79.2	89.3	117.8	71.4	48.7	94.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	48.9	79.2	89.3	117.8	71.4	48.7	94.6
Queue Length 50th (ft)	120	700	139	524	198	445	77	~559
Queue Length 95th (ft)	202	775	m#220	563	#312	580	125	#712
Internal Link Dist (ft)		578		2163		460		369
Turn Bay Length (ft)	480		320		260		355	
Base Capacity (vph)	444	2180	187	1987	321	1009	189	896
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	0.45	0.84	0.71	0.60	1.00	0.79	0.53	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

Exhibit F

HCM 6th Signalized Intersection Summary
101: Andrews Avenue & Oakland Park Boulevard

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1529	249	128	1078	87	310	603	174	97	713	158
Future Volume (veh/h)	196	1529	249	128	1078	87	310	603	174	97	713	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	202	1576	257	132	1111	90	320	622	179	100	735	163
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	312	2009	326	182	2069	167	324	815	234	222	745	165
Arrive On Green	0.10	0.61	0.61	0.07	0.58	0.58	0.19	0.61	0.61	0.05	0.26	0.26
Sat Flow, veh/h	1767	4390	713	1767	4776	387	3428	2687	772	1767	2854	633
Grp Volume(v), veh/h	202	1211	622	132	785	416	320	408	393	100	454	444
Grp Sat Flow(s),veh/h/ln	1767	1689	1727	1767	1689	1786	1714	1763	1697	1767	1763	1724
Q Serve(g_s), s	11.5	48.3	48.7	7.5	25.7	25.7	16.8	30.5	30.6	7.4	46.1	46.1
Cycle Q Clear(g_c), s	11.5	48.3	48.7	7.5	25.7	25.7	16.8	30.5	30.6	7.4	46.1	46.1
Prop In Lane	1.00		0.41	1.00		0.22	1.00		0.46	1.00		0.37
Lane Grp Cap(c), veh/h	312	1545	790	182	1463	773	324	535	515	222	460	450
V/C Ratio(X)	0.65	0.78	0.79	0.73	0.54	0.54	0.99	0.76	0.76	0.45	0.99	0.99
Avail Cap(c_a), veh/h	547	1545	790	234	1463	773	324	535	515	248	460	450
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	28.6	28.7	35.8	27.1	27.1	72.9	30.6	30.7	46.7	66.2	66.2
Incr Delay (d2), s/veh	2.3	4.1	7.8	6.2	1.1	2.1	46.7	6.4	6.7	1.4	38.2	38.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	19.1	20.5	3.5	10.1	10.9	8.9	11.5	11.1	3.4	25.7	25.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	32.6	36.5	41.9	28.2	29.2	119.6	37.0	37.4	48.1	104.4	104.9
LnGrp LOS	C	C	D	D	C	C	F	D	D	D	F	F
Approach Vol, veh/h		2035			1333			1121			998	
Approach Delay, s/veh		33.4			29.9			60.7			99.0	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	84.0	15.4	60.6	15.6	88.4	23.0	53.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	38.0	54.0	12.0	52.0	15.0	77.0	17.0	47.0
Max Q Clear Time (g_c+I1), s	13.5	27.7	9.4	32.6	9.5	50.7	18.8	48.1
Green Ext Time (p_c), s	0.6	9.5	0.0	5.2	0.1	16.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

ATTACHMENT F

Queuing Analysis – Resident's Gate

Traffic Demand

Based on the trip generation analysis, the highest traffic demand entering the driveway occurs during the PM Peak hour with 47 vehicles entering. It was conservative assumed that 100% of the vehicles entering the gated entrance are residents. Note that the gate is only for residents.

Swing Gate Service Rate

The opening speed of this type of gate is 12 seconds. The design service rate considered for this queuing analysis assumed 300 vehicles per hour as the design service rate for a gate operated with a card reader with an easy or straight approach to control the service position. Therefore, the service rate for the residents is calculated as follows: 3600 seconds / 12 seconds = 300 vehicles per hour.

95th Percentile Queue Length

The 95th percentile queue length was calculated for traffic demand for residents only. Table 8 summarizes the traffic demand, service rates, 95th percentile queue, and staking distance provided.

Queueing Analysis - PM Peak Hour

M= Queue length which is exceeded *p* percent of the time

$$M = \left[\frac{lnP(x>M) - lnQ_M}{\ln \rho}\right] \text{-1} \qquad \text{where} \qquad lnP(x > M) = ln0.05$$

N= Number of service channels

Q= Service rate per channel (vph)

ρ= Demand rate/Service rate

$$\rho = \frac{q}{NQ}$$

q = Demand rate on the system (vph)

Q_M= Value obtained from Table 8.11 (refer to attachment)

Gate Location- Residents Only				
Q=	300	vph		
q =	47	vph		
N=	1			
ρ=	0.1567			
Q_M=	0.1567			
M=	-0.38368	≈	1	vehicle