SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

PALM BEACH SYNAGOGUE – THIRD SUBMITTAL

Town of Palm Beach, FL

TRAFFIC IMPACT STATEMENT

PREPARED FOR:

Palm Beach Synagogue
120 North County Road
Palm Beach, Florida 33480

JOB No. 24-073

DATE: 09/05/2023
Revised: 09/23/2024
Revised: 10/05/2024
Revised: 10/11/2024

Bryan G. Kelley, Professional Engineer, State of Florida, License No. 74006 This item has been digitally signed and sealed by Bryan G. Kelley, P.E., on 10/11/2024. Printed Copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.	Bryan Kelley Digitally signed by Bryan Kelley Date: 2024.10.11 08:51:51 -04'00'

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1.0 SITE DATA

The subject parcel is located at 120 & 132 North County Road in the Town of Palm Beach, Florida and contains approximately ±0.72 acres. The Property Control Numbers (PCN's) for the subject parcel are as follows:

50-43-43-22-31-000-1751 50-43-43-22-31-000-1730

The subject parcel historically included 11,007 SF of religious facilities, 2,575 SF of administrative office, and 5,975 SF of a fine dining restaurant. The proposed redevelopment is to consist of 31,573 SF of religious facilities that includes 4,220 SF of ancillary youth and student learning space and 4,388 SF of ancillary administrative office . For the purposes of this traffic study, a build out year of 2028 is assumed.

Site access is proposed via a left in, left out driveway connection to Sunset Avenue. For additional information concerning site location and layout, please refer to the Site Plan prepared by Bartholemew + Partners.

2.0 PURPOSE OF STUDY

The purpose of this traffic study is to provide a transportation concurrency analysis of the Town of Palm Beach impacted roadway segments and intersections within the project area

3.0 TRAFFIC GENERATION

The traffic generated by the historically vested development has been calculated in accordance with the traffic generation rates listed in the *ITE Trip Generation Manual, 11h Edition* and rates published by the Palm Beach County Engineering Traffic Division.

Table 1 shows the daily traffic generation associated with the vested development in trips per day (tpd). Tables 2 and 3 show the AM and PM peak hour traffic generation, respectively, in peak hour trips (pht). The traffic to be generated by the vested development may be summarized as follows:

Vested Development

Daily Traffic Generation	=	361 tpd
AM Peak Hour Traffic Generation (In/Out)	=	6 pht (3 In/3 Out)
PM Peak Hour Traffic Generation (In/Out)	=	31 pht (19 In/12 Out)

Table 4 shows the daily traffic generation associated with the proposed redevelopment in trips per day (tpd). Tables 5 and 6 show the AM and PM peak hour traffic generation, respectively, in peak hour trips (pht). The traffic to be generated by the proposed redevelopment may be summarized as follows:

Proposed Redevelopment

Daily Traffic Generation	=	228 tpd
AM Peak Hour Traffic Generation (In/Out)	=	9 pht (6 In/3 Out)
PM Peak Hour Traffic Generation (In/Out)	=	14 pht (7 In/7 Out)

Note the administrative office space is for Synagogue office use only and will not include any outside business operations. Therefore, the weekday peak trip generation for the overall Synagogue building is inclusive of the administrative office space and the proposed trip generation reflects the anticipated peak hour weekday traffic demand.

The net trip difference between the vested and proposed development is shown in Table 7 attached to this report and may be summarized as follows:

Net Trips (Proposed – Vested)

Daily Traffic Generation	=	-133 tpd
AM Peak Hour Traffic Generation (In/Out)	=	3 pht (3 In/0 Out)
PM Peak Hour Traffic Generation (In/Out)	=	-17 pht (-12 In/-5 Out)

Since the project results in a reduction of trips from the vested development, the project satisfies Palm Beach County Traffic Concurrency Standards and a Test 1 or Test 2 analysis is not required. Additionally, the proposed development results in less than 20 weekday peak hour trips even when not considering the vested development. Therefore, the project would satisfy PBC TPS requirements without the vested trips as the proposed project would have an insignificant impact to the surrounding roadway network during weekday peak hour conditions. The trip generation comparison between the proposed and existing use is shown in Table 8 attached to this report and may be summarized as follows:

Net Trips (Proposed – Existing)

Daily Traffic Generation	=	148 tpd
AM Peak Hour Traffic Generation (In/Out)	=	5 pht (4 In/1 Out)
PM Peak Hour Traffic Generation (In/Out)	=	9 pht (5 In/4 Out)

4.0 TRIP DISTIRBUTION

The project trips were distributed and assigned on the surrounding roadway network as shown in Figure 1 attached to this report. Note the trip distribution considers the one-way eastbound conversion of Sunset Avenue from Bradley Place to N. County Road.

5.0 SYNAGOGUE OPERATIONS

The primarily Synagogue religious services are held on Saturday mornings at 9:30 AM which are followed by a Kiddush luncheon at 12:30 PM. Approximately 198 households which are members of the Palm Beach Synagogue live within one mile of the facility. Many members currently walk to the facility utilizing the existing sidewalk infrastructure within the Town including Sunset Avenue and County Road. The proximity and number of the members to the Synagogue greatly reduces the vehicle and parking demand of the site. There are also various High Holidays that occur on weekdays throughout the year that will have evening worship services. The Synagogue also has Sunday school for school age children from approximately 9:30 AM to 12:30 PM. The school is only on Sunday's and not during the weekdays. More details on the Sunday School are provided later in the traffic study. The Synagogue similar to many other religious institutes will have different events such as weddings on occasion. The Synagogue uses a valet company (Palm Beach Parking) for these types of events and utilizes offsite parking. During normal weekdays, administrative staff has business hours from 9:00 AM to 5:00 PM.

A breakdown of the typical week is provided below. Note these are existing conditions at the Synagogue and not expected to materially change as part of the application.

Monday through Friday

- Staff administrative hours are from 9:00 AM to 5:00 PM. There are 13 staff members but several are spouses so only a total of 8 households.
- Small morning services occur at 8:00 AM. These services only consist of approximately 15 men. Approximately 5 of the 15 men walk and 6 of the 15 men are part of staff and therefore are not separate trips.

Monday and Thursday

- Small evening services currently start at 6:30 PM but fluctuate throughout the year. Evening services consist of approximately 10 men and 6 of them are staff members and therefore not separate trips.

Friday

- Small evening services currently start at 7:00 PM but fluctuate throughout the year. Evening services consist of approximately 25 men with 15 walking.
- Dinner events happen at the facility approximately once or twice a month. Approximately 50-100 people would be in attendance with many walking and families. Approximately 20 vehicles for this type of event when it occurs.

Saturday

- Main service starts at 9:30 AM , followed by Kiddush luncheon at 12:30 PM. An average attendance is approximately 150 people with a minimum of 20-30 walking. Since the majority of the 150 people are families, an average of 40-50 vehicles.

Sunday

- Small morning services occur at 8:15 AM. These services only consist of approximately 15 men. Approximately 5 of the 15 men walk and 6 of the 15 men are part of staff and therefore are not separate trips.
- Hebrew School/Maimonides starts at 9:30 AM and ends at 12:30 PM. More details about traffic circulation are provided later in the report for this program. On average approximately 35-40 households pickup/drop off each Sunday.

6.0 INTERSECTION ANALYSIS

At the request of the Town, an intersection analysis was performed at the following intersections:

1. Sunset Avenue at Bradley Place (TWSC and Signal Alternative)
2. Sunset Avenue at County Road (signalized)
3. Bradley Place at Royal Poinciana Way (signalized)
4. County Road at Royal Poinciana Way (signalized)

Sunet Avenue at Bradley Place was also analyzed as a signalized intersection in the background and total traffic conditions scenarios since a signal warrant has recently been satisfied for the intersection. The analysis was performed using Synchro 12 software with Highway Capacity Methodologies. HCM 6th Edition was used when available and HCM was used for intersections with shared lanes. The existing traffic counts were taken from the Town of Palm Beach Traffic Analyses completed by The Corradino Group. All traffic counts were collected in March 2024. The traffic counts were collected from 7:30 to 11:00 AM and from 3:00 to 5:30 PM. The highest one hour of traffic in the AM and PM was used in the analysis. The background traffic volumes were taken from the Paramount traffic study and included approved projects within the Town and also approved projects from the City of West Palm Beach. The background traffic used the highest of the historical growth rate of 2.33% or the committed trips plus 1%. The traffic analysis was performed for existing conditions, background conditions and total traffic conditions and is summarized as follows:

Table 9 - Existing Year (2024) Operational Analysis

Intersection	Intersection Control	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Bradley Pl at Sunset Ave	TWSC	EB	12.2	B	14.5	B
Sunset Ave at County Rd	Signalized	EB	33.8	C	46.0	D
		WB	32.2	C	41.9	D
		NB	0.5	A	0.2	A
		SB	3.9	A	3.9	A
		Overall	4.8	A	8.3	A
Royal Poinciana Way at Bradley Pl	Signalized	EB	27.4	C	30.2	C
		WB	21.6	C	29.6	C
		NB	22.0	C	23.6	C
		SB	18.4	B	28.2	C
		Overall	24.4	C	28.3	C
Royal Poinciana Way at County Rd	Signalized	EB	32.3	C	34.0	C
		WB	41.3	D	51.1	D
		NB	15.8	B	23.2	C
		SB	8.7	A	29.4	C
		Overall	19.8	B	30.2	C

Table 10 - Background (2028) Operational Analysis

Intersection	Intersection Control	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Bradley Pl at Sunset Ave	TWSC	EB	12.8	B	15.6	C
Bradley Pl at Sunset Ave	Signal Alternative	EB	45.7	D	46.1	D
		NB	2.4	A	2.3	A
		SB	1.9	A	3.6	A
		Overall	3.0	A	4.2	A
Sunset Ave at County Rd	Signalized	EB	33.9	C	46.8	D
		WB	32.2	C	41.9	D
		NB	0.5	A	0.2	A
		SB	4.1	A	4.1	A
		Overall	4.8	A	8.4	A
Royal Poinciana Way at Bradley Pl	Signalized	EB	30.7	C	30.4	C
		WB	21.8	C	34.7	C
		NB	22.3	C	24.6	C
		SB	18.4	B	31.7	C
		Overall	26.3	C	32.0	C
Royal Poinciana Way at County Rd	Signalized	EB	33.8	C	39.0	D
		WB	42.0	D	51.1	D
		NB	22.2	C	28.1	C
		SB	9.5	A	30.5	C
		Overall	23.6	C	33.4	C

Table 11 - Total Traffic Conditions (2028) Operational Analysis

Intersection	Intersection Control	Movement	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
Bradley Pl at Sunset Ave	TWSC	EB	12.8	B	15.6	C
Bradley Pl at Sunset Ave	Signal Alternative	EB	45.7	D	46.1	D
		NB	2.4	A	2.3	A
		SB	1.9	A	3.6	A
		Overall	3.0	A	4.1	A
Sunset Ave at County Rd	Signalized	EB	34.0	C	47.0	D
		WB	32.2	C	41.9	D
		NB	0.5	A	0.2	A
		SB	4.1	A	4.1	A
		Overall	4.8	A	8.5	A
Royal Poinciana Way at Bradley Pl	Signalized	EB	30.7	C	34.0	C
		WB	21.8	C	34.7	C
		NB	22.3	C	24.6	C
		SB	18.4	B	31.7	C
		Overall	26.3	C	32.0	C
Royal Poinciana Way at County Rd	Signalized	EB	33.8	C	39.0	D
		WB	42.0	D	51.1	D
		NB	22.2	C	28.3	C
		SB	9.5	A	30.5	C
		Overall	23.6	C	33.5	C

As shown in Tables 9-11, all study intersections will operate at Level of C or better for both peak hours and for existing and future traffic scenarios.

7.0 95TH QUEUE ANALYSIS

In addition to the operational analysis, a 95th percentile queue analysis was prepared for impacted turn lanes at the study intersections. The results showed the project will have minimal impact on the vehicle queues as shown in Tables 12-14. The eastbound right turn lane at the intersection of Sunset Avenue and County Road was shown to have a 95th percentile queue that exceeded the existing storage length. However, this is due to very short turn lanes at the intersection and the majority of volume turning right. The turn lanes and overall intersection were shown to operate sufficiently in the peak hour analysis. Additionally, the proposed project only caused an increase of 3 feet to the 95th percentile queue. Note the queue calculations were estimated based on a bumper to bumper distance of 25 feet.

Table 12 - Existing Conditions (2028) 95th Percentile Queue Analysis

Intersection	Turn Lane	Peak Hour	95th Queue (ft)	Storage (ft)
Bradley Place at Sunset Ave (TWSC)	Southbound Left	AM	3	75
		PM	0	
	Northbound Right	AM	0	Drop Right
		PM	0	
Sunset Ave at County Rd	Eastbound Left	AM	15	75
		PM	65	
	Eastbound Through	AM	8	75
		PM	3	
	Eastbound Right	AM	83	75
		PM	158	
Royal Poinciana Way at Bradley Pl	Eastbound Left	AM	168	335
		PM	152	
	Westbound Right	AM	9	115
		PM	0	
Royal Poinciana Way at County Rd	Southbound Approach	AM	60	N/A
		PM	302	

Table 13 - Background Conditions (2028) 95th Percentile Queue Analysis

Intersection	Turn Lane	Peak Hour	95th Queue (ft)	Storage (ft)
Bradley Place at Sunset Ave (TWSC)	Southbound Left	AM	3	75
		PM	0	
	Northbound Right	AM	0	Drop Right
		PM	0	
Bradley Place at Sunset Ave (Signalized Alternative)	Southbound Left	AM	0	75
		PM	3	
	Northbound Right	AM	15	Drop Right
		PM	20	
Sunset Ave at County Rd	Eastbound Left	AM	15	75
		PM	70	
	Eastbound Through	AM	10	75
		PM	3	
	Eastbound Right	AM	90	75
		PM	175	
Royal Poinciana Way at Bradley Pl	Eastbound Left	AM	200	335
		PM	169	
	Westbound Right	AM	11	115
		PM	0	
Royal Poinciana Way at County Rd	Southbound Approach	AM	65	N/A
		PM	349	

Table 14 – Total Traffic Conditions (2028) 95th Percentile Queue Analysis

Intersection	Turn Lane	Peak Hour	95th Queue (ft)	Storage (ft)
Bradley Place at Sunset Ave (TWSC)	Southbound Left	AM	0	75
		PM	0	
	Northbound Right	AM	0	Drop Right
		PM	0	
Bradley Place at Sunset Ave (Signalized Alternative)	Southbound Left	AM	3	75
		PM	3	
	Northbound Right	AM	15	Drop Right
		PM	23	
Sunset Ave at County Rd	Eastbound Left	AM	15	75
		PM	73	
	Eastbound Through	AM	10	75
		PM	3	
	Eastbound Right	AM	93	75
		PM	178	
Royal Poinciana Way at Bradley Pl	Eastbound Left	AM	200	335
		PM	170	
	Westbound Right	AM	11	115
		PM	0	
Royal Poinciana Way at County Rd	Southbound Approach	AM	65	N/A
		PM	349	

8.0 TRAFFIC CONCURRENCY

A copy of the Palm Beach County TPS approval letter is provided in Appendix F attached to this report. Additionally, the project was reviewed to ensure consistency with Chapter 30 of the Town of Palm Beach Code of Ordinances and Policy 2.1 of the Town Transportation Element. The proposed redevelopment is a reduction of trips from the historically vested use inclusive of the restaurant. However, in order to be conservative, the restaurant was not considered in the roadway concurrency analysis since it no longer in operation. Tables 15 and 16 attached to this report in Appendix G show the significance calculations of the surrounding roadway network in comparison to the 2020 FDOT Q/LOS Tables. Tables 15 and 16 show the project will have an insignificant impact (less than 1% of the LOS D volume threshold) to each of the surrounding roadways and therefore the project meets traffic concurrency requirements.

A roadway segment analysis was also completed based on the Town Comprehensive Plan that includes evaluation of roadways utilizing two-way peak hour thresholds. The roadway analysis is provided in Tables 17-20 attached in Appendix G. Tables 17 and 18 show the AM and PM peak hour analysis, respectively, based on the net trips assuming no restaurant use. The analysis shows each of the roadway segments meet the required LOS thresholds with the exception of Bradley Place. Bradley Place is a background deficiency as LOS standards are not met based on existing traffic volumes and background/committed trips without the project. The proposed development does not cause any degradation of LOS standards. The proposed development is responsible for only 3 peak hour trips on Bradley Place which represents approximately 0.2% of LOS E service threshold volume. These new trips can be considered insignificant or de minimis. If the proposed project trips were added to the existing volumes and the background trips were not included, the LOS E threshold would be met for Bradley Place. It should be noted the trip generation is based on the ITE Trip Generation rates. However, the weekday peak hour operations are expected to be the same as the current development.

Tables 19 and 20 show the roadway analysis utilizing the vested restaurant use. The net new trips results in a decrease of 133 daily trips, an increase of 3 AM peak hour trips, and a decrease of 17 PM peak hour trips from the vested development.

9.0 SUNDAY SCHOOL OPERATIONS

As previously stated, the Synagogue operates a Sunday school for school aged students on Sunday mornings from 9:30 AM to 12:30 PM. No schooling occurs during the weekday. There are approximately 63 families that attend the Sunday school program but not all 63 families are ever there at one time or on any given Sunday. Typically about 35-40 households participate in Hebrew School/Maimonides on a Sunday. Additionally, some families and students walk reducing the vehicle demand. For those attending via vehicle, parents drop their students off similar to a traditional school car line and then pick them back up in the afternoon. Staff members will be present to assist students with vehicle circulation and pick up/drop off. Staff will park using the parking spaces towards Sunset Avenue so that parents can make a U-turn in the courtyard parking to drop students off. An autoturn exhibit has been prepared for this maneuver which shows a P-vehicle (medium size SUV) can make this U-turn (See Appendix A). If necessary, larger vehicles can make a 3-point turn. A Traffic Operational Plan is provided and included in Appendix H showing the circulation pattern. Drivers will come in on the left side of the driveway with guidance from cones, staff, and temporary signage and then leave on the right side of the drive aisle. This is done since Sunset Avenue is one-way only eastbound and this circulation pattern will minimize vehicle conflict points and improve efficiency.

The queue line can accommodate approximately 9 vehicles assuming 1 vehicle per every 22 feet for internal stacking assumptions. A queuing calculation has been prepared assuming a conservative 63 arriving vehicles with a 1 minute processing time and 2 vehicles loading/unloading at a time.

The queuing analysis was based on the following ratio:

Coefficient of utilization (ρ) = Average Demand Rate / Average Service Rate

The required queue storage (M) is determined based on the following equation:

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$$

A 95% confidence rate was used for this analysis. Therefore, the P(x > M) was set to 5%.

Q = Processing rate = 60 (min/hr) / 1.0 (min/process) = 60 processes per hour
q = Demand rate = 63 vehicles/ per hour
N = Valet attendants = 2 vehicles loading/unloading at a time
ρ = Utilization factor = q/(NQ) = 63/(2*60) = 0.525
Q_m = Table value = 0.363

M = (ln(.05)-ln(0.363))/ ln(0.525) -1 = 2.07, or 3 vehicles.

As shown above, the queueing calculations show a 95th percentile queue of 3 vehicles. The ingress stacking can accommodate 9 vehicles so no vehicle spillover to Sunset Avenue is anticipated. The queue calculations are also provided in Appendix I.

10.0 VALET OPERATIONS

As previously stated, the Synagogue will have weddings or other types of events on occasion. These events typically occur during the evening and outside of weekday peak hours. If a large event occurs such as a wedding, valet service will be provided by Palm Beach Parking. The same onsite circulation pattern will be used as the Sunday School and valet attendants will park vehicles offsite. Note valet services are not used for worship services. Palm Beach Parking utilizes public and metered on-street parking on both N. County Road and Sunrise Avenue to park vehicles. To return to the Synagogue, the valet attendants will utilize the existing sidewalk infrastructure on N. County Road, Sunrise Avenue, Sunset Avenue, and Bradley Place. A traffic circulation exhibit for the valet operations is included in Appendix H.

The valet will be staffed appropriately to ensure vehicle queuing is maintained onsite and does not spillover onto Sunset Avenue. A sample calculation is provided below using the same queueing methodology as the Sunday School.

For a 150 person wedding, it is assumed approximately 20% or 30 people will walk. Therefore, 120 people will arrive by vehicle. A typical event vehicle occupancy is 2.5 persons per vehicle. Therefore the vehicle demand can be conservatively estimated at 48 vehicles. It was estimated the total valet turnover time to pick up vehicle, drive offsite, and arrive back would be 3 minutes. A total of 4 valet attendants was assumed in this scenario.

Q = Processing rate = 60 (min/hr) / 3.0 (min/process) = 20 processes per hour
q = Demand rate = 48 vehicles/ per hour
N = Valet attendants = 4 vehicles loading/unloading at a time
ρ = Utilization factor = q/(NQ) = 48/(4*20) = 0.600
Q_m = Table value = 0.287

M = (ln(.05)-ln(0.287))/ ln(0.600) -1 = 2.42, or 3 vehicles.

As shown above, the queueing calculations show a 95th percentile queue of 3 vehicles. The ingress stacking can accommodate 9 vehicles so no vehicle spillover to Sunset Avenue is anticipated. However, the Synagogue will work closely with their private valet operator to ensure any event that occurs is staffed appropriately. The queue calculations are provided in Appendix I.

11.0 PARKING ANALYSIS

A parking analysis was prepared based on Section 134-2176 of the Town Code of Ordinances. A summary of the vested and proposed parking calculations is provided below.

Parking Calculation Comparison

Land Use	Parking Ratio	Existing Use		Proposed Use	
		Intensity	Number of Spaces	Intensity	Number of Spaces
Synagogue	1 per 4 seats	164 Seats	41	230	58
Fine Dining	1 per 3 Seats	168 Seats	56	N/A	0
Total			97		58

The proposed redevelopment will result in a parking reduction of 39 spaces from the historically vested use as documented above. As shown on the Existing Site Plan, a total of 33 parking spaces are existing but many of them do not meet the minimum parking size or drive aisle width requirements of the Town. Based on the existing number of spaces, the site is currently non-conforming to the minimum parking requirements. It is acknowledged due to the demolition of more than 50% of the building, legal non-conformity for parking is no longer vested. Therefore, a parking variance is required.

According to Section 134-2176 of the Town Code of Ordinances, the required parking for a house of worship is one per four permanent seats in the main auditorium. Separate parking for ancillary uses as such classrooms, administrative office, etc. are not identified in the Town Code and are not required. These uses do occur simultaneously as worship services and therefore there is not a need to provide additional parking for these uses. The classrooms and flex space will be used on Sunday mornings which uses a drop off/pick up procedure. The main worship services occur on Saturday and does not conflict.

Approximately 198 households which are members of the Palm Beach Synagogue live within one mile of the facility. Many members currently walk to the facility utilizing the existing sidewalk infrastructure within the Town including Sunset Avenue and County Road. The proximity and number of the members to the Synagogue greatly reduces the parking demand of the site. Additionally, the Synagogue is coordinating with nearby businesses to acquire parking agreements for its members on Saturdays and religious holidays when peak parking demand occurs.

12.0 SITE RELATED IMPROVEMENTS

The AM and PM peak hour volumes at the project entrances for the overall development with no reduction for pass by credits are shown in Tables 4 and 5 and may be summarized as follows:

Directional Distribution (Trips IN/OUT)

AM = 6 / 4
PM = 7 / 8

As previously mentioned, site access is proposed via a left in, left out only driveway connection to Sunset Avenue. Figure 2 attached to this report depicts the driveway volumes. No additional turn lanes are warranted or proposed.

13.0 MULTIMODAL TRANSPORTATION OPTIONS

An existing sidewalk is present along both sides of Sunset Avenue and County Road. The existing sidewalk fronting the side on Sunset Avenue is approximately 6.5 feet wide and the sidewalk fronting County Road is approximately 8 feet wide. Striped crosswalks and pedestrian signals are present at the intersection of Sunset Avenue and County Road. No bicycle lanes are currently present on either Sunset Avenue or County Road. However, the large sidewalks along Sunset Avenue and County Road and the slower speeds of the roadways allow bicyclists to use either the sidewalk or roadway if desired.

Palm Tran Route #41 currently services the area and County Road. The most proximal bus stop is approximately 350 feet to the north of the synagogue and provides service connections to the north end of Palm Beach and the West Palm Beach Tri-Rail station.

14.0 CONCLUSION

The proposed development will result in a reduction of trips from the historically vested site. Additionally, the proposed development even without the existing/vested use will result in less than 20 weekday peak hour trips and therefore meets the requirements of the Palm Beach County Traffic Performance Standards. An intersection operational analysis was prepared at four intersections demonstrated the proposed site will have a minimal impact to the surrounding roadway network.

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PALM BEACH SYNAGOGUE

08/20/2024

EXISTING DEVELOPMENT

TABLE 1 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
Church/Synagogue[b]	560	11,007	S.F.	7.6			84		0	84	5%	4	80
Fine Dining Restaurant	931	5,979	S.F.	83.84			501		0	501	44%	220	281
			Grand Totals:				**585**	**0.0%**	**0**	**585**	**38%**	**224**	**361**

TABLE 2 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Church/Synagogue[b]	560	11,007	S.F.	0.32	0.62	0.38	2	2	4	0.0%	0	0	0	2	2	4	5%	0	2	2	4
Fine Dining Restaurant	931	5,979	S.F.	0.73	0.50	0.50	2	2	4	0.0%	0	0	0	2	2	4	44%	2	1	1	2
			Grand Totals:				**4**	**4**	**8**	**0.0%**	**0**	**0**	**0**	**4**	**4**	**8**	**25%**	**2**	**3**	**3**	**6**

TABLE 3 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Church/Synagogue[b]	560	11,007	S.F.	0.49	0.44	0.56	2	3	5	0.0%	0	0	0	2	3	5	5%	0	2	3	5
Fine Dining Restaurant	931	5,979	S.F.	7.8	0.67	0.33	31	16	47	0.0%	0	0	0	31	16	47	44%	21	17	9	26
			Grand Totals:				**33**	**19**	**52**	**0.0%**	**0**	**0**	**0**	**33**	**19**	**52**	**40%**	**21**	**19**	**12**	**31**

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PROPOSED DEVELOPMENT

TABLE 4 - Daily Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips	Internalization %	Internalization Total	External Trips	Pass-by %	Pass-by Trips	Net Trips
Church/Synagogue[b]	560	31,573	S.F.	7.6			240		0	240	5%	12	228
			Grand Totals:				**240**	**0.0%**	**0**	**240**	**5%**	**12**	**228**

TABLE 5 - AM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Church/Synagogue[b]	560	31,573	S.F.	0.32	0.62	0.38	6	4	10	0.0%	0	0	0	6	4	10	5%	1	6	3	9
			Grand Totals:				**6**	**4**	**10**	**0.0%**	**0**	**0**	**0**	**6**	**4**	**10**	**10%**	**1**	**6**	**3**	**9**

TABLE 6 - PM Peak Hour Traffic Generation

Landuse	ITE Code	Intensity		Rate/Equation	Dir Split In	Dir Split Out	Gross Trips In	Gross Trips Out	Gross Trips Total	Internalization %	Internalization In	Internalization Out	Internalization Total	External Trips In	External Trips Out	External Trips Total	Pass-by %	Pass-by Trips	Net Trips In	Net Trips Out	Net Trips Total
Church/Synagogue[b]	560	31,573	S.F.	0.49	0.44	0.56	7	8	15	0.0%	0	0	0	7	8	15	5%	1	7	7	14
			Grand Totals:				**7**	**8**	**15**	**0.0%**	**0**	**0**	**0**	**7**	**8**	**15**	**7%**	**1**	**7**	**7**	**14**

TABLE 7
TRAFFIC GENERATION DIFFERENCE - NET TRIPS (PROPOSED - VESTED)

	DAILY	AM PEAK HOUR			PM PEAK HOUR		
		TOTAL	IN	OUT	TOTAL	IN	OUT
VESTED DEVELOPMENT =	361	6	3	3	31	19	12
PROPOSED DEVELOPMENT =	228	9	6	3	14	7	7
DIFFERENCE =	**-133**	**3**	**3**	**0**	**-17**	**-12**	**-5**

TABLE 8
TRAFFIC GENERATION DIFFERENCE - NET TRIPS (PROPOSED - EXISTING)

	DAILY	AM PEAK HOUR			PM PEAK HOUR		
		TOTAL	IN	OUT	TOTAL	IN	OUT
VESTED DEVELOPMENT =	80	4	2	2	5	2	3
PROPOSED DEVELOPMENT =	228	9	6	3	14	7	7
DIFFERENCE =	**148**	**5**	**4**	**1**	**9**	**5**	**4**

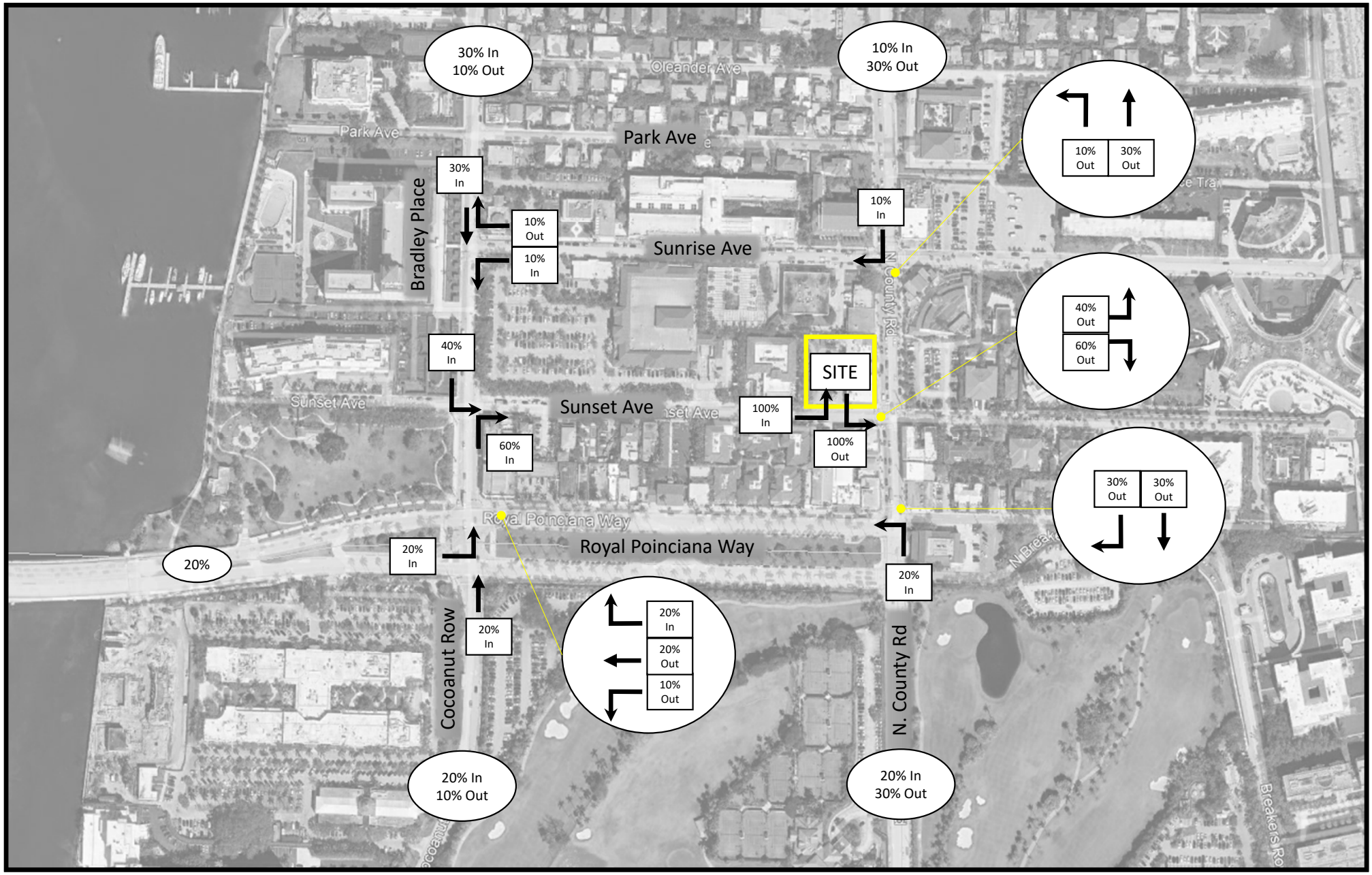


Figure 1 - Trip Distribution
Palm Beach Synagogue
Project # 24-073

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

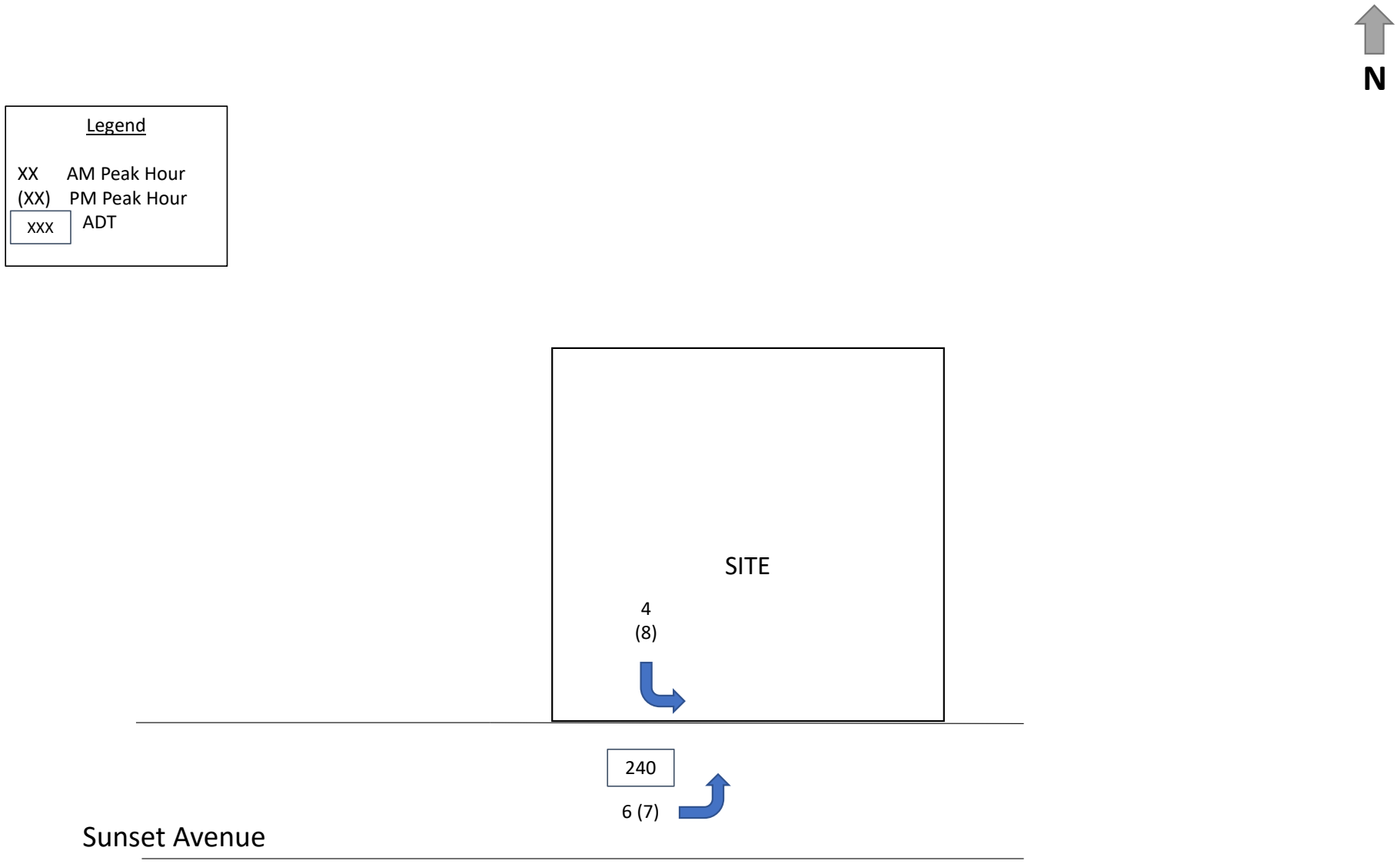
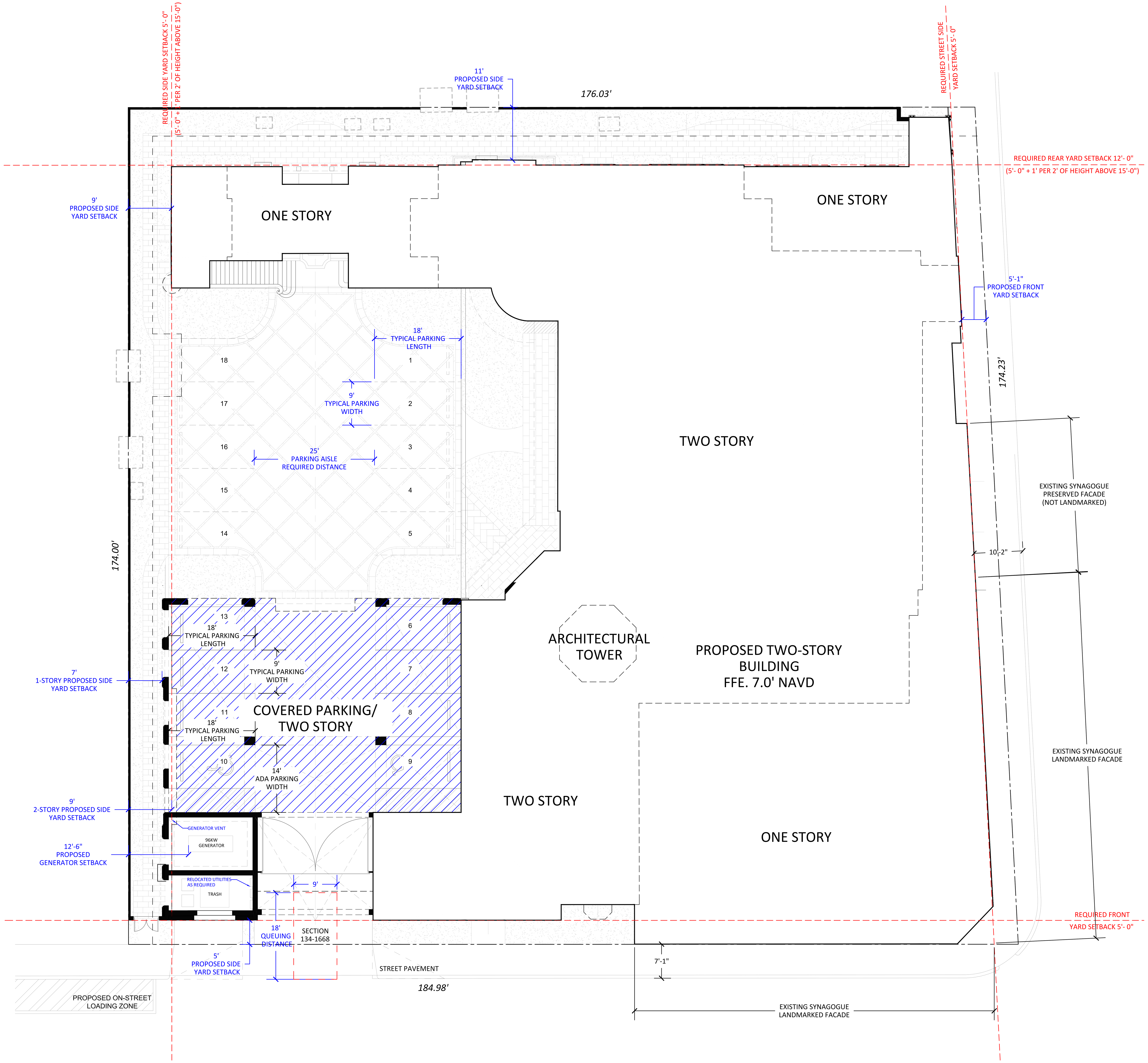


Figure 2 – Driveway Volumes
Palm Beach Synagogue
Project # 24-073

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

APPENDIX A

SITE PLAN, ENGINEERING PLANS, & AUTOTURN PLANS



1 PROPOSED SITE PLAN
SCALE: 3/32" = 1'-0"

PROJECT DATA

LOCATION ADDRESS: 120-132 N COUNTY ROAD
MUNICIPALITY: WEST PALM BEACH
PARCEL CONTROL NUMBER: 50-43-43-22-31-000-1751 & 50-43-43-22-31-000-1730

BUILDING FOOT PRINT: 13,980 SF
ACRES: 0.7207 ACRE
AREA OF LOT: 31,400 S.F.
PROPERTY USE: 7100- RELIGIOUS
ZONING: C-TS - COMMERCIAL TOWN SERVING

MUNICODE PALM BEACH

MINIMUM SETBACKS:
FRONT: 5'-0"
REAR: 10'-0"
SIDE: 5'-0"
MAXIMUM BUILDING HEIGHT: NOT TO EXCEED 25 FEET.
MAXIMUM OVERALL HEIGHT: MAXIMUM ALLOWABLE BUILDING HEIGHT, AS DEFINED IN SECTION 134-2, PLUS FIVE FEET FOR A FLAT ROOF AND TEN FEET FOR ALL OTHER ROOF STYLES.

MAXIMUM LOT COVERAGE: 70 PERCENT.

MINIMUM LANDSCAPED OPEN SPACE: 25 PERCENT. NOT LESS THAN 35 PERCENT OF THE REQUIRED FRONT YARD MUST BE LANDSCAPED OPEN SPACE FOR C-TS DISTRICT.

EXISTING	ALLOWABLE	PROPOSED
SETBACKS: FRONT (N COUNTY): 5'-0" FRONT (SUNSET): 0'-0" SIDE YARD (WEST): 37'-4" SIDE YARD (NORTH): 1'-9" EXISTING LOT COVERAGE: 44.5% OPEN SPACE: 7% FRONT YARD LANDSCAPED: 10.06%	SETBACKS: FRONT: 5'-0" REAR: 10'- 0" SIDE: 5'-6" LOT COVERAGE: 70% OPEN SPACE: 25% FRONT YARD LANDSCAPED: 35%	SETBACKS: FRONT (SUNSET): 0'-0" SIDE YARD (N COUNTY): 5'-0" SIDE YARD (WEST): 7'-0" REAR YARD (NORTH): 11'-0" PROPOSED LOT COVERAGE: 69.4% OPEN SPACE: 10.03% FRONT YARD LANDSCAPED: 18.05%

COA-24-0022
ZON-24-0055

Bartholemew + Partners
ARCHITECTURE AND DESIGN
PROGETTO DI ARCHITETTURA

THE PLAZA CENTER
251 ROYAL PALM WAY
PENTHOUSE 600A
PALM BEACH, FLORIDA 33480
T: 561 461 0108
F: 561 461 0106
FL LIC. # AA26003943

BARTHOLEMEWPARTNERS.COM

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ATTORNEY
525 OKEECHOBEE BLVD # 1100
WEST PALM BEACH, FL 33401
PHONE: 561-835-8500
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ENVIRONMENT DESIGN GROUP
LANDSCAPE ARCHITECT
139 N COUNTY ROAD, SUITE 20-B
PALM BEACH, FL 33480
PHONE: 561-832-4600
E-MAIL:DUSTIN@ENVIRONMENTDESIGNGROUP.COM

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PRE-CONSTRUCTION CONSTRUCTION MANAGER
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WEST PALM BEACH, FL 33401
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EMAIL: KLEWIS@CONKLINGANDLEWIS.COM

ZABIK AND ASSOCIATES
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ROYAL PALM BEACH, FL 33411
PHONE: 561-791-2468
EMAIL: LKRUTZ@ZABIKANDASSOCIATES.COM

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EMAIL: BRYAN@SIMMONSANDWHITE.COM

KYLE B FANT ARCHITECT # AR99255
INTERIOR DESIGNER # ID6422
AIA # 30425933 NCARB # 87929

Revisions:

Project no: 24.04.130
Date: 07.29.24
Drawn by: V. Antico
Project Manager: K. Fant

120-132 N. COUNTY RD PALM BEACH SYNAGOGUE

Project Address:
120-132 N. County Rd, Palm Beach, FL, 33480

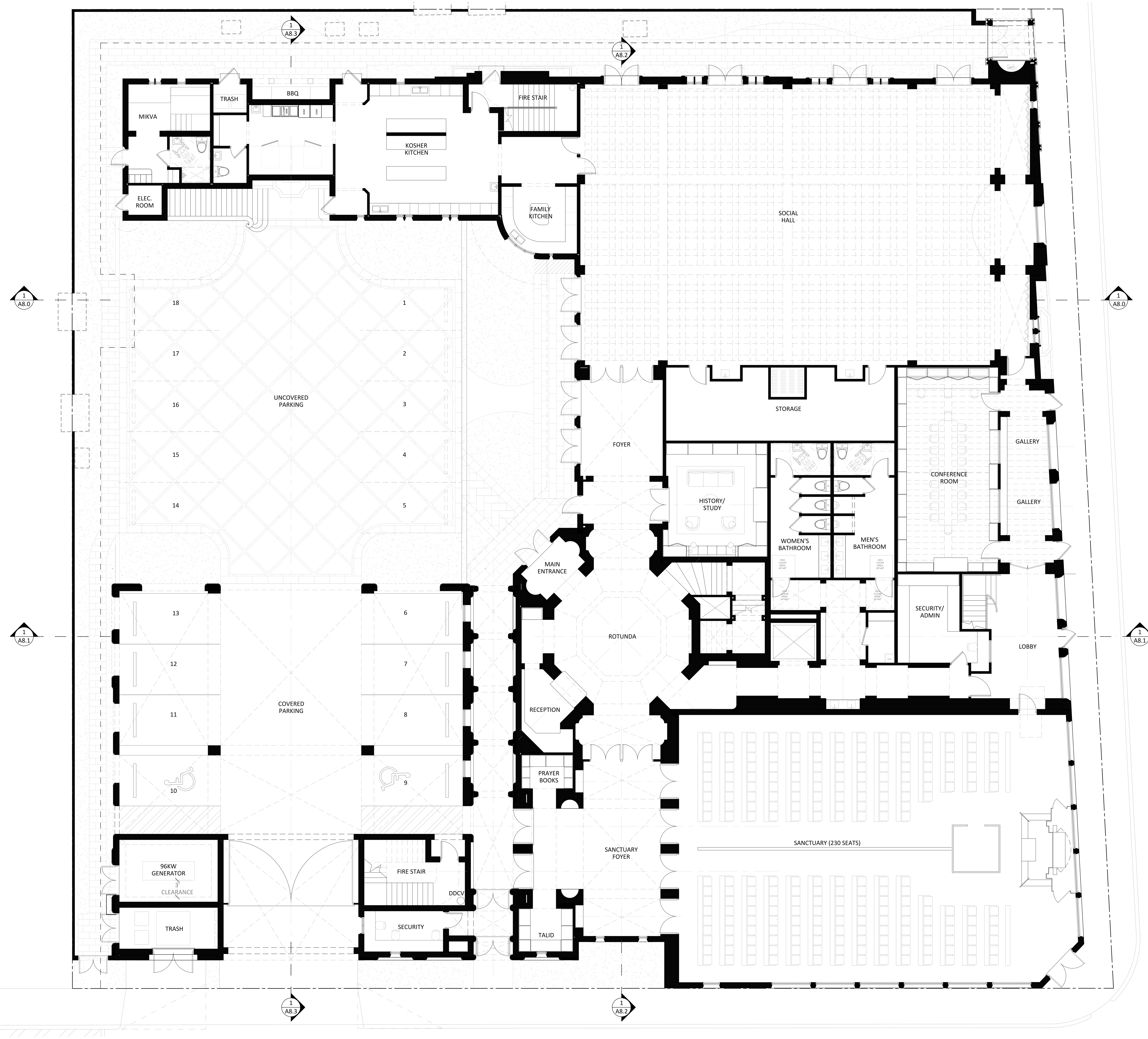
SHEET NAME

PROPOSED SITE PLAN

SHEET NUMBER

SP5.2

N W E S



1 PROPOSED TECHNICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

COA-24-0022
ZON-24-0055

Bartholemew + Partners
ARCHITECTURE AND DESIGN
PROGETTO DI ARCHITETTURA

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INTERIOR DESIGNER # ID6422
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Revisions:

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Date: 07.29.24
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Project Manager: K. Fant

120-132 N. COUNTY RD
PALM BEACH
SYNAGOGUE

Project Address:
120-132 N. County Rd, Palm Beach, FL, 33480

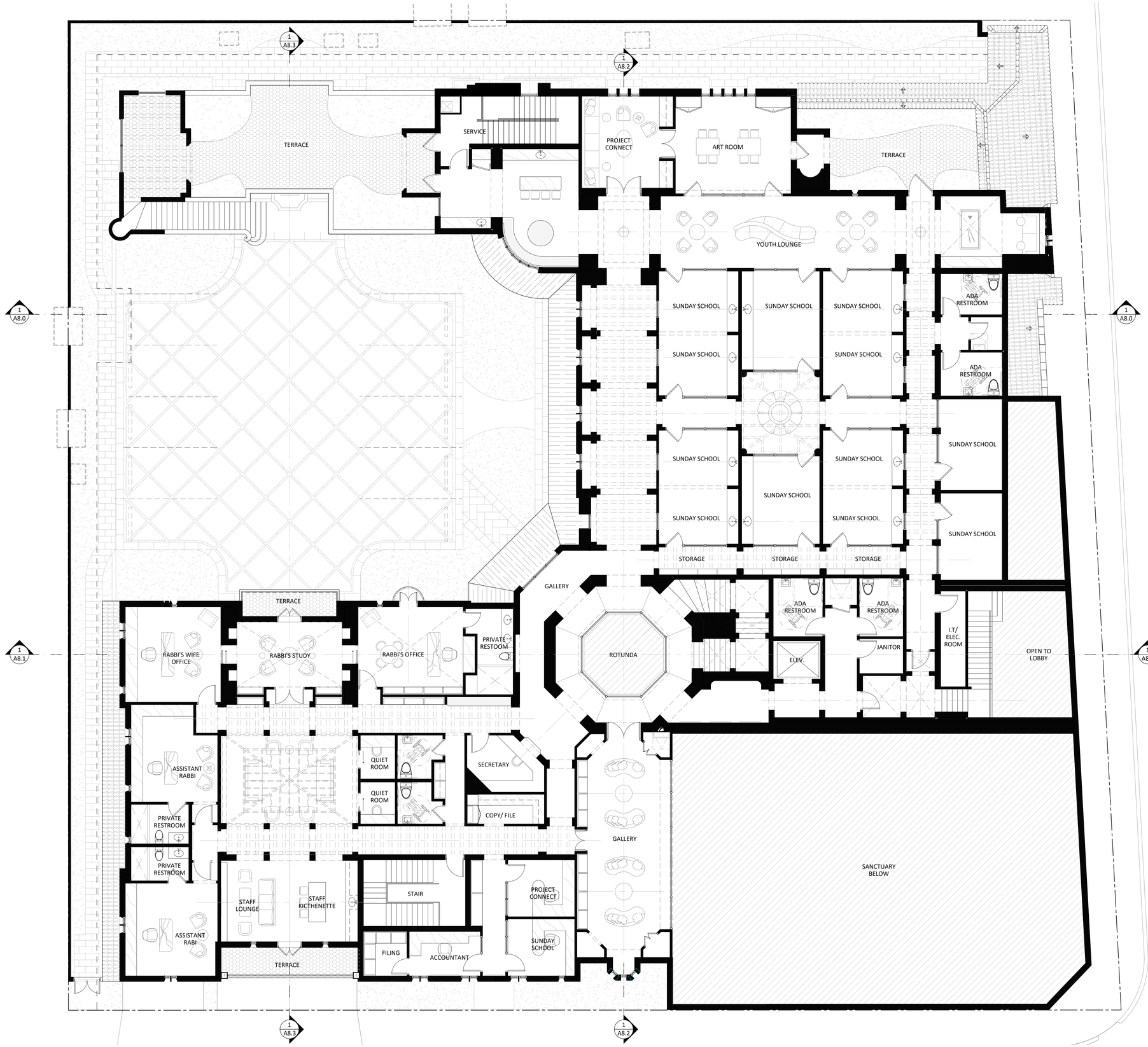
SHEET NAME

PROPOSED FLOOR PLAN

SHEET NUMBER

A1.0

N
W E
S



1 PROPOSED TECHNICAL SECOND FLOOR PLAN
SCALE: 3/32" = 1'-0"

COA-24-0022
ZON-24-0055

Bartholemew + Partners
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KYLE B FANT ARCHITECT # AR99255
INTERIOR DESIGNER # ID6422
AIA # 30425933 NCARB # 87929

Revisions:

Project no: 24.04.130
Date: 07.29.24
Drawn by: V. Antico
Project Manager: K. Fant

120-132 N. COUNTY RD
PALM BEACH
SYNAGOGUE

Project Address:
120-132 N. County Rd, Palm Beach, FL, 33480

SHEET NAME

PROPOSED SECOND FLOOR PLAN

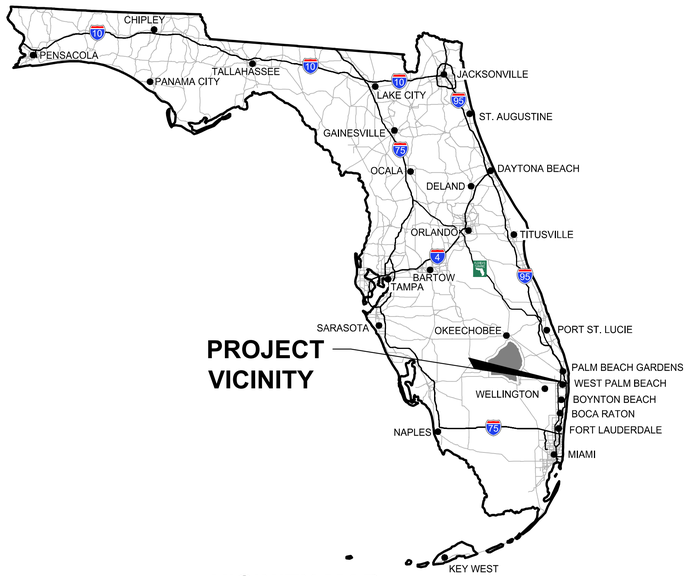
SHEET NUMBER

A1.1

N
W E
S

CONCEPTUAL SITE DEVELOPMENT PLANS
PALM BEACH SYNAGOGUE

SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA



VICINITY MAP
NOT TO SCALE

LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

CODY M. FLOYD LICENSE No. 97497 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY CODY M. FLOYD, P.E. ON 10/9/2024.

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REVISIONS

SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
E.C.	C.O.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
TITLE SHEET

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073C01	1	4

LEGEND

- x18.44 — EXISTING GRADE ELEVATION
- SAWCUT & REMOVE EXISTING ASPHALT, CONCRETE, CURB, ETC.
- EXISTING EASEMENT (TO BE ABANDONED)
- EXISTING OVERHEAD POWER LINE & POWER POLE
- EXISTING STORM DRAINAGE PIPE
- EXISTING WATER MAIN
- EXISTING SEWER MAIN
- EXISTING FORCE MAIN
- EXISTING STORM DRAINAGE PIPE (TO BE REMOVED)
- EXISTING WATER MAIN (TO BE REMOVED)
- EXISTING SEWER MAIN (TO BE REMOVED)
- EXISTING LIGHT POLE (TO BE REMOVED)

EXISTING U.E. (O.R.B. 35070, PG. 765)

EXISTING BACKFLOW PREVENTER (TO BE REMOVED–TYP.)

EXISTING ELECTRIC VAULT (TO BE REMOVED/RELOCATED BY OTHERS)

LOT 173

2–STORY BUILDING (TO BE REMOVED)

LOT 174

LOT 183 LOT 182 LOT 181

EXISTING LIGHT POLE (TO REMAIN)

LOT 175

EXISTING U.E. (O.R.B. 35070, PG. 765)

EXISTING CATCH BASIN (TO BE REMOVED)
RIM = 4.20
INV.(E) = 2.45
INV.(S) = 1.98

LOT 184
223 SUNSET AVE.
2–STORY BLDG.

LOT 180

PARCEL A

LOT 176

10'X102.9' RESTRICTED BUILD EASEMENT (O.R.B. 5119, PG. 1491)(TO BE ABANDONED)

EXISTING STORM PIPE (TO BE REMOVED)

10'X25' LANDMARK DESIGNATION (O.R.B. 7278, PG. 227)

PARCEL B

LOT 177

5.25'X50' U.E (O.R.B. 9014, PG. 1174) (PORTION TO BE ABANDONED)

2–STORY BUILDING (TO BE REMOVED)

LOT 178

PARCEL C

EXISTING ELECTRIC BOXES (TO REMAIN)

5.25' U.E (O.R.B. 9014, PG. 1174) (PORTION TO REMAIN)

LOT 179

EXISTING CATCH BASIN
RIM = 4.94
INV.(S) = 2.51

EXISTING WATER METERS (TO REMAIN)

EXISTING PEDESTRIAN CROSSING SIGNS (TO REMAIN)

EXISTING BACKFLOW PREVENTER (TO REMAIN)

EXISTING METER BOXES

EXISTING TYPE "F" CURB AND VALLEY GUTTER (TO BE SAWCUT, REMOVED, AND REPLACED)

EXISTING SIGN (TO BE REMOVED)

EXISTING CURB INLET (TO BE MODIFIED FROM CURB GUTTER INLET TO VALLEY GUTTER INLET)
RIM = 4.17
INV.(N) = 1.52
INV.(E) = 0.82

EXISTING STRIPING (TO BE REMOVED)

SUNSET AVENUE

EXISTING WOODEN POWER POLE (TO REMAIN)

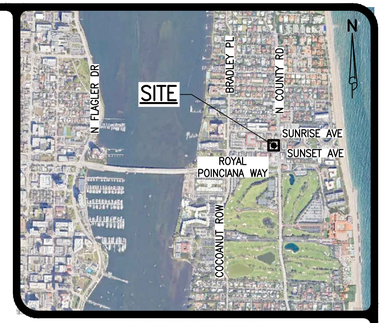
EXISTING LIGHT POLE (TO REMAIN)

EXISTING STORM MH.
RIM = 5.87
INV.(NE) = –0.28
INV.(SE) = –0.53

EXISTING SAN. MH.
RIM = 4.25

EXISTING SAN. MH.
RIM = 5.93

N. COUNTY ROAD



LOCATION MAP
NOT TO SCALE

N

10 5 0 10 20
SCALE IN FEET
1"=10'

NOTES:

1.) CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE F.D.E.P. AND PALM BEACH COUNTY HEALTH DEPT. STANDARDS FOR THE REMOVAL AND DISPOSAL OF EXISTING SANITARY SEWER SYSTEM, GREASE TRAPS AND OTHER SANITARY SEWER SYSTEM APPERTUANCCES ON–SITE.
2.) CONTRACTOR SHALL COORDINATE RELOCATION/ REMOVAL OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES, POWER/UTILITY/LIGHT POLES AND GUY WIRES, SERVICES AND TRANSFORMERS IN CONFLICT WITH THE PROPOSED IMPROVEMENTS WITH APPLICABLE UTILITY COMPANIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.
3.) CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES ON AND ADJACENT TO THE PROPOSED SITE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.
4.) CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL OF ALL EXISTING SITE IMPROVEMENTS AND THE DISPOSAL THERE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES AT THE CONTRACTORS EXPENSE. JOB SITE SHALL BE LEFT IN A CLEAN AND PRESENTABLE CONDITION AT THE END OF EVERY DAY.
5.) CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL FEES FOR ENVIRONMENTAL SURVEYS AND/OR ASSESSMENTS, AS MAY BE REQUIRED FOR DEMOLITION AND OBTAINING ANY AND ALL PERMITS REQUIRED FROM THE ISSUING GOVERNING AGENCIES.
6.) CONTRACTOR SHALL TURN OFF OR HAVE CAPPED OFF ALL UTILITIES IN ALL AREAS TO BE DEMOLISHED WHETHER SHOWN OR NOT.
7.) THE DEMOLITION CONTRACTOR SHALL CARRY THE PROPER INSURANCE TO PROTECT HIMSELF, HIS EMPLOYEES, THE OWNER, THE ARCHITECT AND ENGINEERS FROM ANY AND ALL CLAIMS OCCURRING OR CAUSED BY OR RELATED TO HIS WORK.
8.) ANY DAMAGE TO EXISTING PROPERTY OF ANY KIND ATTRIBUTED TO THIS CONTRACTOR'S WORK SHALL BE QUICKLY AND PROPERLY REPAIRED TO THE SATISFACTION OF THE OWNER AND ENGINEER AND APPLICABLE GOVERNING AGENCY.
9.) CONTRACTOR SHALL FIELD VERIFY ADDITIONAL SITE RELATED DEMOLITION AND NOTIFY ENGINEER OF ANY CONFLICTS OR CHANGES IN SCOPE.
10.) CONSTRUCTION/DEMOLITION WITHIN PALM BEACH COUNTY AND F.D.O.T. RIGHT OF WAY SHALL NOT COMMENCE WITHOUT PERMITS BEING ISSUED, CONSTRUCTION COMMENCEMENT NOTICES AND PRE–CONSTRUCTION MEETING HELD WITH BOTH AGENCIES.
11.) ALL EXISTING EASEMENTS IN AREAS TO BE DEMOLISHED ON–SITE SHALL BE ABANDONED. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING REMOVAL OF EXISTING FACILITIES WITH APPLICABLE GOVERNING AGENCIES AND UTILITY SERVICE PROVIDERS AND PROVIDING NEW SERVICE TO PROPOSED BUILDINGS.
12.) CONTRACTOR SHALL PROVIDE MEANS TO ADEQUATELY STORE AND PROPERLY TREAT AND DISPOSE OF STORMWATER RUNOFF FROM THE CONSTRUCTION SITE DURING DEMOLITION OF EXISTING FACILITIES.
13.) CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL F.D.E.P./N.P.E.S. STANDARDS DURING DEMOLITION, INCLUDING OBTAINING ALL PERMITS AND FILING OF N.O.I, N.O.T., ETC.
14.) ABANDON TANK PER CODE 64E–6.011
TANK ABANDONMENT PROCEDURES: (A) PUMP OUT TANK BY CERTIFIED LICENSED SEPTIC TANK CONTRACTOR OR LICENSED PLUMBER (RECEIPT REQUIRED). (B) RUPTURE TANK BOTTOM OR COLLAPSE ENTIRE TANK SO AS TO PREVENT THE TANK FROM RETAINING WATER, & (C) FILL TANK WITH CLEAN SAND/OTHER SUITABLE MATERIAL & COMPLETELY COVER WITH SOIL.
15.) FINAL APPROVAL SHALL BE GRANTED UPON RECEIPT OF THE FOLLOWING LEGIBLE INFORMATION SUBMITTED TO FDOHB–septic@flhealth.gov: (1) PUMP OUT RECEIPT & (2) PICTURES OF (B) & (C) ABOVE, (3) PICTURE SHOWING THE SEPTIC TANK IN RELATION TO THE BUILDING. THE DOH MAY PERFORM A FINAL INSPECTION PRIOR TO FINAL APPROVAL.

NOTE: ALL ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988 BASED ON A SURVEY PREPARED BY WALLACE SURVEYING, CORP. (561) 640–4551.

CODY M. FLOYD LICENSE No. 97497 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY CODY M. FLOYD, P.E. ON 10/9/2024.

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REVISIONS

SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
E.C.	C.O.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
CONCEPTUAL DEMOLITION PLAN

JOB NO.	DRAWING NO.	SHEET	OF
24–073	24073C02	2	4

LOCATION MAP
NOT TO SCALE

N

10 5 0 10 20
SCALE IN FEET
1"=10'

LEGEND

- PROPOSED STORM SEWER AND CATCH BASIN
- DIRECTION OF FLOW
- DIRECTION OF SWALE
- H.P. PROPOSED HIGH POINT
- x6.8 EXISTING GRADE ELEVATION
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED BRICK PAVERS/DECORATIVE PAVEMENT
- PROPOSED UNDERGROUND STORAGE CHAMBERS
- 24" WHITE STOP BAR, "STOP" SIGN & (25') 6" DOUBLE YELLOW STRIPING W/ BI-DIRECTIONAL AMBER R.P.M.'S
- EXISTING OVERHEAD POWER LINE & POWER POLE
- STM EXISTING STORM DRAINAGE PIPE (TO REMAIN)
- WTR EXISTING WATER MAIN (TO REMAIN)
- SAN EXISTING SEWER MAIN (TO REMAIN)
- FM EXISTING FORCE MAIN (TO REMAIN)
- EXISTING STORM DRAINAGE PIPE (TO BE REMOVED. SEE SHEET 2 FOR INFORMATION)

Stormwater Retention Calculations

A.) SITE INFORMATION

Total Property Area	=	31,408	s.f.
Drainage Area Impervious Surface	=	28,463	s.f.
Drainage Area Pervious Surface	=	2,933	s.f.

B.) ESTIMATED STORMWATER RETENTION VOLUME (Q=CIA)

The retention volume is estimated by using the Rational Method:

C (impervious surface)	=	1.0	
C (pervious surface)	=	0.2	
I (to bring to Town's LOS)	=	1.0	in/hr
Impervious Surface Runoff Volume	=	2371.92	c.f.
Pervious Surface Runoff Volume	=	48.88	c.f.
Total Volume to be Retained	=	2420.80	c.f.
	=	0.67	ac-in

C.) SUMMARY:

Refer to exfiltration spreadsheet for provided volume based on length of 2' x 2' trench

Required: 0.67 ac-in Provided 0.7 ac-in
+/-1800 s.f. Underground Chamber Footprint

NOTES:

1.) THIS DESIGN IS CONCEPTUAL AND SUBJECT TO CHANGE BASED ON FINAL DESIGN.

2.) ALL WATER AND WASTEWATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF PALM BEACH AND THE PALM BEACH COUNTY HEALTH DEPARTMENT.

3.) CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DEMOLITION MATERIAL IN ACCORDANCE WITH ALL APPLICABLE GOVERNING AGENCY STANDARDS.

4.) LOCATIONS OF WATER AND SANITARY SEWER SERVICES, DRAINAGE STRUCTURES AND PIPES AND OTHER STRUCTURES TO BE COORDINATED WITH LANDSCAPE DESIGN DURING PREPARATION OF FINAL CIVIL ENGINEERING PLANS.

5.) CONSTRUCTION AND DEMOLITION TO COMPLY WITH N.F.P.A. 241.

6.) FIRE DEPARTMENT LOCKING CAPS WILL BE REQUIRED ON THE FIRE DEPARTMENT CONNECTION.

7.) ALL ROOF DRAINS TO BE DIRECTED TO ONSITE DRAINAGE SYSTEM. NO DIRECT RUNOFF OFFSITE.

NOTE: ALL ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988 BASED ON A SURVEY PREPARED BY WALLACE SURVEYING, CORP. (561) 640-4551.

CODY M. FLOYD LICENSE No. 97497 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY CODY M. FLOYD, P.E. ON 10/9/2024.

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REVISIONS

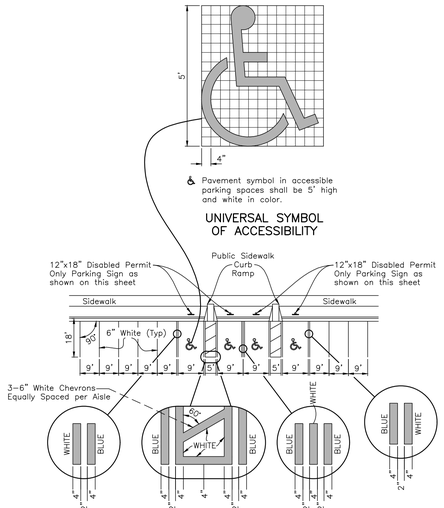
SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
E.C.	C.O.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
CONCEPTUAL SITE DEVELOPMENT PLAN

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073C03	3	4

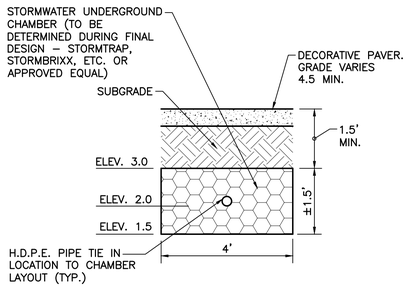
Y:\AUTOCAD_FILES\2024\24-073\CONCEPTUAL\24073C03_SDP.dwg 10/9/2024 8:26 AM Daniel Brunet



PAVEMENT MARKING FOR PUBLIC SIDEWALK CURB RAMPS

TYPICAL PARKING SPACES

NOT TO SCALE



PRELIMINARY UNDERGROUND STORMWATER CHAMBER DETAIL

NOT TO SCALE

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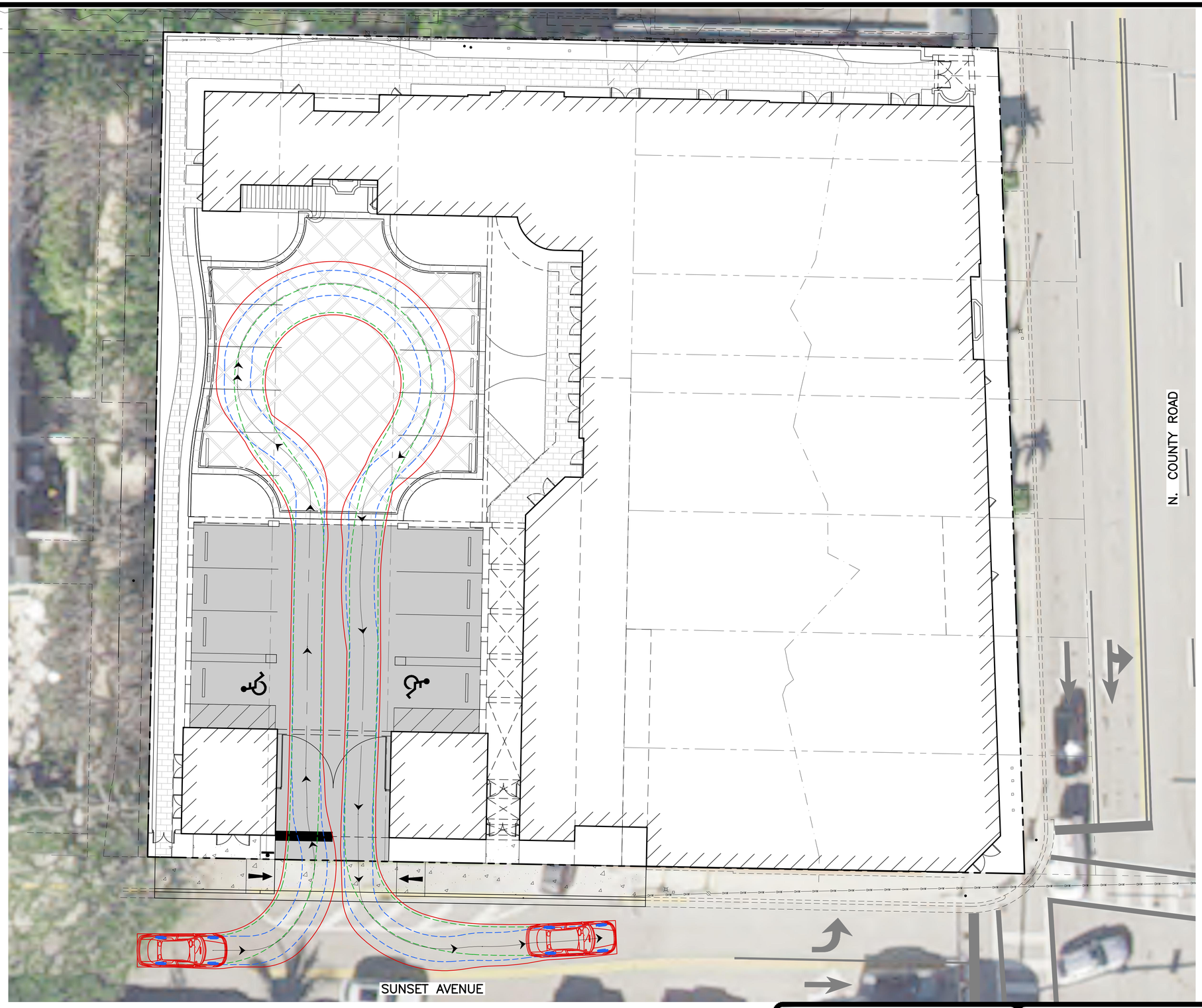
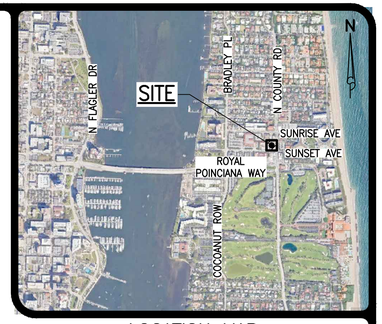
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
E.C.	C.O.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
CONCEPTUAL DETAILS

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073C04	4	4





LOCATION MAP
NOT TO SCALE

N

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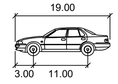
SCALE IN FEET
1"=10'



Passenger Vehicle

	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6

RED = VEHICLE BODY
BLUE = FRONT TIRE PATH
GREEN = REAR TIRE PATH

9/20/2024

REVISIONS

SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
C.F.	D.B.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
PASSENGER CAR AUTOTURN ANALYSIS

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073AT01	1	1

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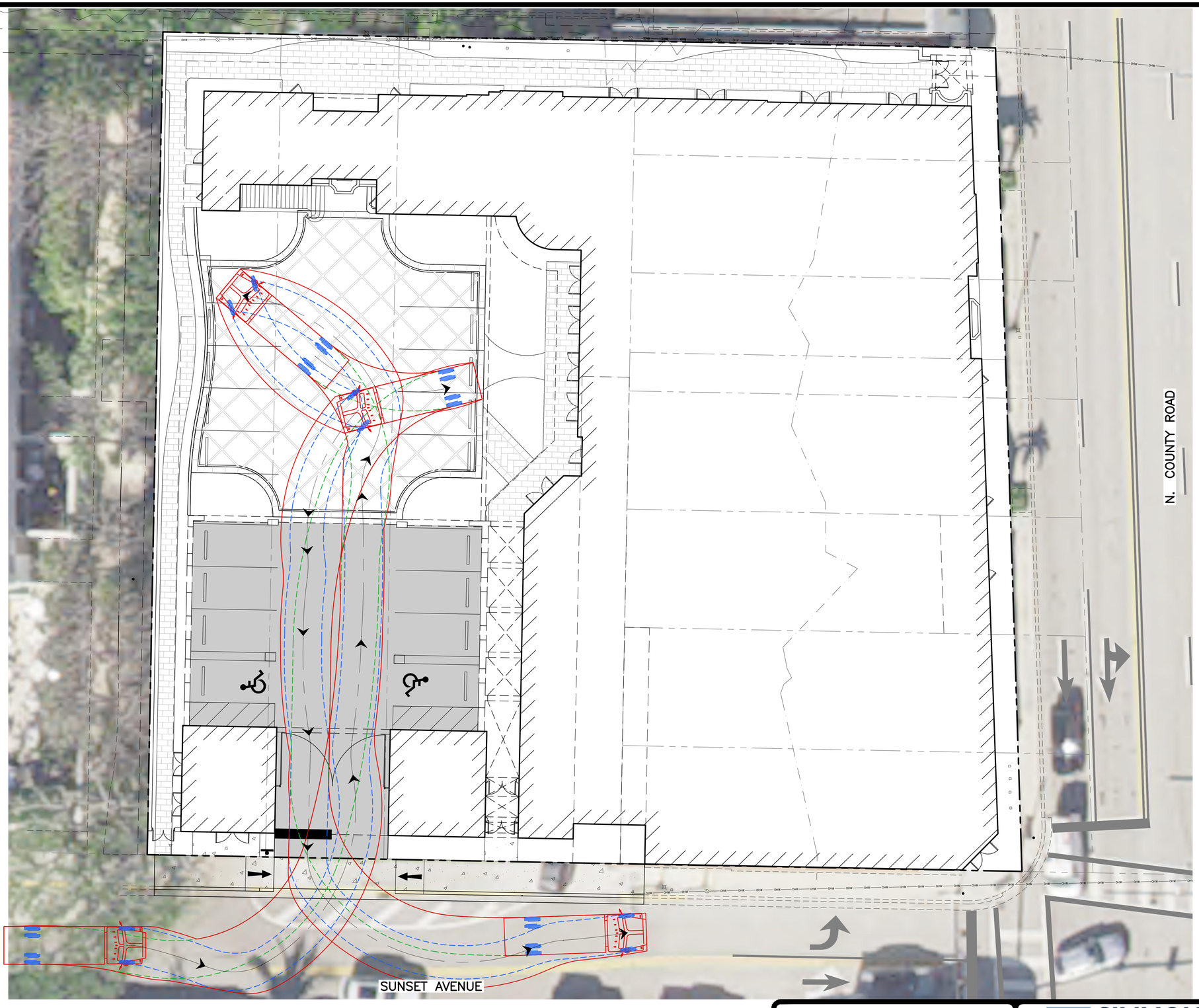
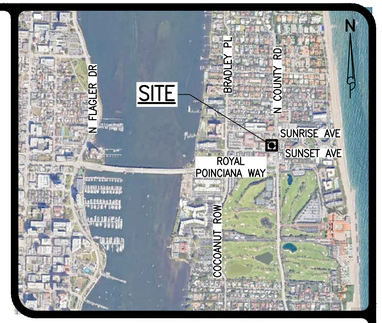
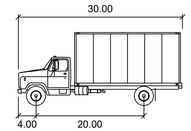




LOCATION MAP
NOT TO SCALE

N

10 5 0 10 20
SCALE IN FEET
1"=10'



SU-30

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8

RED = VEHICLE BODY
BLUE = FRONT TIRE PATH
GREEN = REAR TIRE PATH

9/20/2024

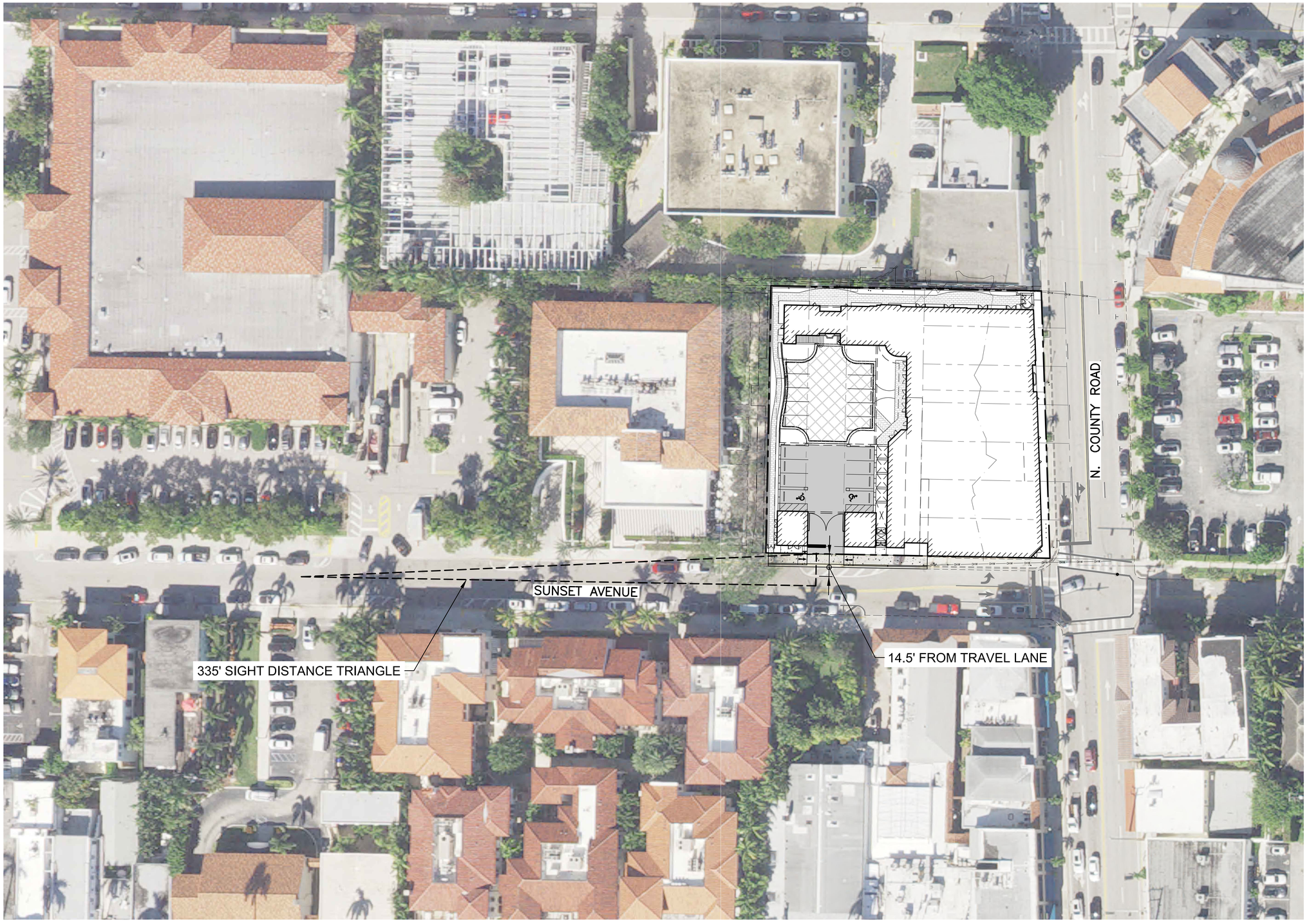
SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

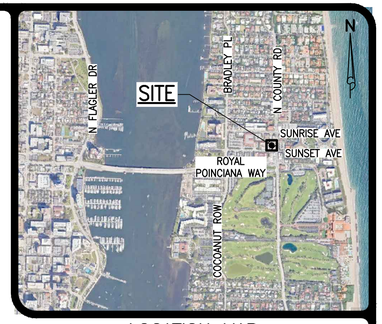
PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
SU-30 AUTOTURN ANALYSIS

REVISIONS

DESIGN	DRAWN	CHECKED	APPROVED	DATE
C.F.	D.B.			

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073AT01	1	1





LOCATION MAP
NOT TO SCALE

N

30 15 0 30 60
SCALE IN FEET
1"=30'

9/20/2024

REVISIONS

SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
C.F.	C.O./D.B.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
SUNSET AVENUE SIGHT DISTANCE EXHIBIT

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073Z02	1	1

Y:\AUTOCAD_FILES\2024\24-073\EXHIBIT\24073Z02 (Site Distance Exhibit).dwg 9/20/2024 1:33 PM Daniel Brunet

APPENDIX B

INTERSECTION ANALYSIS

PALM BEACH SYNAGOGUE

10/05/2024

CMA INTERSECTION ANALYSIS

PALM BEACH SYNAGOGUE

BRADLEY PLACE AT ROYAL POINCIANA WAY

TRIPS

	IN	OUT
AM	4	1
PM	5	4

INPUT DATA

Growth Rate = 2.33% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2028

AM Peak Hour

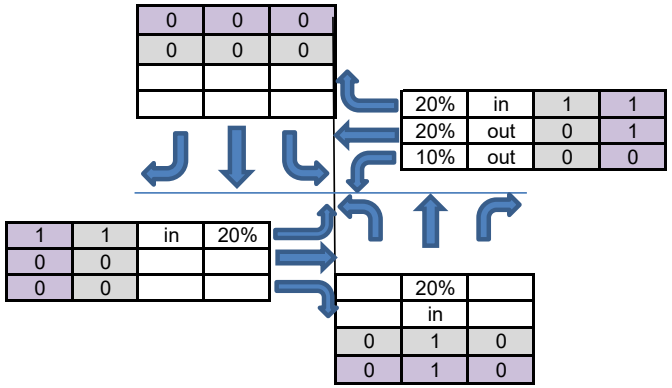
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	73	195	63	0	82	220	464	679	156	84	313	71	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	
Background Traffic Growth	7	19	6	0	8	21	45	66	15	8	30	7	232
1.0% Background Growth	3	8	3	0	3	9	19	28	6	3	13	3	361
Major Projects Traffic	35	0	0	0	0	18	22	80	44	0	65	0	
Background Traffic Used	38	8	3	0	3	27	41	108	50	3	78	3	
2028 Background Traffic	**111**	**203**	**66**	**0**	**85**	**247**	**505**	**787**	**206**	**87**	**391**	**74**	
Project Traffic	0	1	0	0	0	0	1	0	0	0	0	1	
Total	**111**	**204**	**66**	**0**	**85**	**247**	**506**	**787**	**206**	**87**	**391**	**75**	

PM Peak Hour

INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	234	188	76	0	120	563	295	372	106	97	640	44	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	264
Background Traffic Growth	23	18	7	0	12	54	28	36	10	9	62	4	457
1.0% Background Growth	10	8	3	0	5	23	12	15	4	4	26	2	
Major Projects Traffic	57	0	0	0	0	29	23	85	47	0	105	0	
Background Traffic Used	67	8	3	0	5	52	35	100	51	4	131	2	
2028 Background Traffic	**301**	**196**	**79**	**0**	**125**	**615**	**330**	**472**	**157**	**101**	**771**	**46**	
Project Traffic	0	1	0	0	0	0	1	0	0	0	1	1	
Total	**301**	**197**	**79**	**0**	**125**	**615**	**331**	**472**	**157**	**101**	**772**	**47**	



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

Bradley N. of Royal Poinciana Way
AM 82
PM 101

Cocoanut Row S. of Royal Poinciana Way
AM 106
PM 137

Royal Poinciana Way E. of Cocoanut Row
AM 194
PM 240

Royal Poinciana Way W. of Cocoanut Row
AM 341
PM 436

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study

X:\Documents\PROJECTS\2024\24-073 Palm Beach Synagogue\Traffic\Trip Gen.rev.xlsx
BK

CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
SUNSET AVENUE AND COUNTY ROAD

TRIPS

	IN	OUT
AM	4	1
PM	5	4

INPUT DATA

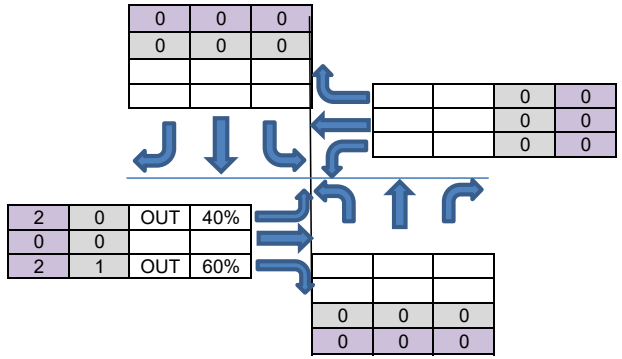
Growth Rate = 2.33% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2028

AM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	0	818	30	9	456	0	16	9	88	16	0	10	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	
Background Traffic Growth	0	79	3	1	44	0	2	1	8	2	0	1	140
1.0% Background Growth	0	33	1	0	19	0	1	0	4	1	0	0	97
Major Projects Traffic	0	18	0	0	14	0	0	0	6	0	0	0	
Background Traffic Used	0	79	3	1	44	0	2	1	8	2	0	1	
2028 Background Traffic	**0**	**897**	**33**	**10**	**500**	**0**	**18**	**10**	**96**	**18**	**0**	**11**	
Project Traffic	0	0	0	0	0	0	0	0	1	0	0	0	
Total	**0**	**897**	**33**	**10**	**500**	**0**	**18**	**10**	**97**	**18**	**0**	**11**	

PM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	0	538	16	3	742	0	54	3	124	11	0	13	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	145
Background Traffic Growth	0	52	2	0	72	0	5	0	12	1	0	1	126
1.0% Background Growth	0	22	1	0	30	0	2	0	5	0	0	1	
Major Projects Traffic	0	23	0	0	32	0	0	0	10	0	0	0	
Background Traffic Used	0	52	2	0	72	0	5	0	12	1	0	1	
2028 Background Traffic	**0**	**590**	**18**	**3**	**814**	**0**	**59**	**3**	**136**	**12**	**0**	**14**	
Project Traffic	0	0	0	0	0	0	2	0	2	0	0	0	
Total	**0**	**590**	**18**	**3**	**814**	**0**	**61**	**3**	**138**	**12**	**0**	**14**	



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

County Road N. of Sunset Ave
AM 125
PM 130

County Road S. of Sunset Ave
AM 136
PM 138

Sunset Ave W. of County Rd
AM 11
PM 17

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study

CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
COUNTY ROAD AT ROYAL POINCIANA WAY

TRIPS

	IN	OUT
AM	4	1
PM	5	4

INPUT DATA

Growth Rate = 2.33% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2028

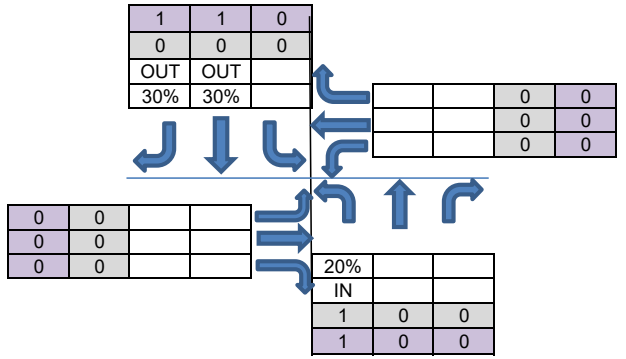
AM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	212	475	42	0	339	234	325	115	200	14	38	8	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	
Background Traffic Growth	20	46	4	0	33	23	31	11	19	1	4	1	193
1.0% Background Growth	9	19	2	0	14	10	13	5	8	1	2	0	331
Major Projects Traffic	69	2	0	0	3	19	23	19	71	0	35	9	
Background Traffic Used	78	21	2	0	17	29	36	24	79	1	37	9	
2028 Background Traffic	**290**	**496**	**44**	**0**	**356**	**263**	**361**	**139**	**279**	**15**	**75**	**17**	
Project Traffic	1	0	0	0	0	0	0	0	0	0	0	0	
Total	**291**	**496**	**44**	**0**	**356**	**263**	**361**	**139**	**279**	**15**	**75**	**17**	

PM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	217	364	32	0	502	375	200	66	228	42	87	16	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	205
Background Traffic Growth	21	35	3	0	48	36	19	6	22	4	8	2	397
1.0% Background Growth	9	15	1	0	20	15	8	3	9	2	4	1	
Major Projects Traffic	105	2	0	0	3	41	28	28	84	0	16	4	
Background Traffic Used	114	17	1	0	23	56	36	31	93	2	20	5	
2028 Background Traffic	**331**	**381**	**33**	**0**	**525**	**431**	**236**	**97**	**321**	**44**	**107**	**21**	
Project Traffic	1	0	0	0	1	1	0	0	0	0	0	0	
Total	**332**	**381**	**33**	**0**	**526**	**432**	**236**	**97**	**321**	**44**	**107**	**21**	

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

County Rd N. of Royal Poinciana Way
AM 112
PM 137

County Rd S. of Royal Poinciana Way
AM 197
PM 250

Royal Poinciana Way W. of County Rd
AM 282
PM 350

CMA INTERSECTION ANALYSIS
PALM BEACH SYNAGOGUE
SUNSET AVENUE AND BRADLEY PLACE

TRIPS

	IN	OUT
AM	4	1
PM	5	4

INPUT DATA

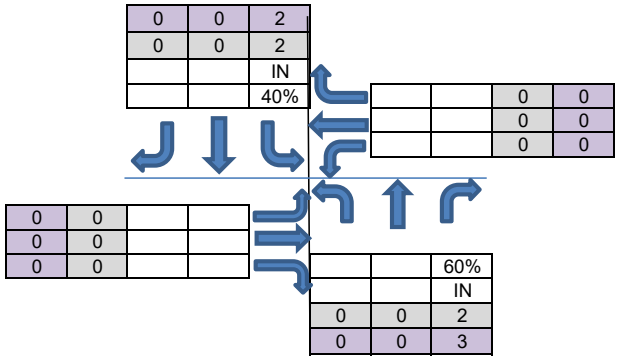
Growth Rate = 2.33% Peak Season = 1.00 Current Year = 2024 Buildout Year = 2028

AM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	20	530	190	6	288	2	3	5	10	0	0	0	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	
Background Traffic Growth	2	51	18	1	28	0	0	0	1	0	0	0	102
1.0% Background Growth	1	22	8	0	12	0	0	0	0	0	0	0	49
Major Projects Traffic	0	0	0	0	0	0	0	0	6	0	0	0	
Background Traffic Used	2	51	18	1	28	0	0	0	1	0	0	0	
2028 Background Traffic	**22**	**581**	**208**	**7**	**316**	**2**	**3**	**5**	**11**	**0**	**0**	**0**	
Project Traffic	0	0	2	2	0	0	0	0	0	0	0	0	
Total	**22**	**581**	**210**	**9**	**316**	**2**	**3**	**5**	**11**	**0**	**0**	**0**	

PM Peak Hour
INTERSECTION VOLUME DEVELOPMENT

	Northbound			Southbound			Eastbound			Westbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing Volume (2024)	36	283	213	12	648	7	2	2	28	0	0	0	
Peak Season Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	119
Background Traffic Growth	3	27	21	1	63	1	0	0	3	0	0	0	84
1.0% Background Growth	1	11	9	0	26	0	0	0	1	0	0	0	
Major Projects Traffic	0	14	3	0	17	0	0	0	0	0	0	0	
Background Traffic Used	3	27	21	1	63	1	0	0	3	0	0	0	
2028 Background Traffic	**39**	**310**	**234**	**13**	**711**	**8**	**2**	**2**	**31**	**0**	**0**	**0**	
Project Traffic	0	0	3	2	0	0	0	0	0	0	0	0	
Total	**39**	**310**	**237**	**15**	**711**	**8**	**2**	**2**	**31**	**0**	**0**	**0**	



BACKGROUND TRAFFIC CALCS FOR ROADWAY SEGMENTS

Bradley N. of Sunset Ave

AM 79
PM 91

Bradley S. of Sunset Ave

AM 100
PM 117

Sunset Ave E. of Bradley Place

AM 19
PM 22

Note:
Background growth based on the higher of 1.0% plus major project or historical growth rate of 2.33%
Major project traffic from Paramount Traffic Study

SYNCHRO PRINTOUTS

EXISTING (2024) CONDITIONS

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	10	0	0	0	20	530	190	6	288	2
Future Vol, veh/h	3	5	10	0	0	0	20	530	190	6	288	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	11	0	0	0	21	558	200	6	303	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1016	1116	304	305	0	0	758	0	0
Stage 1	316	316	-	-	-	-	-	-	-
Stage 2	700	800	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	264	208	736	1256	-	-	853	-	-
Stage 1	739	655	-	-	-	-	-	-	-
Stage 2	493	397	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	258	0	736	1256	-	-	853	-	-
Mov Cap-2 Maneuver	258	0	-	-	-	-	-	-	-
Stage 1	726	0	-	-	-	-	-	-	-
Stage 2	490	0	-	-	-	-	-	-	-

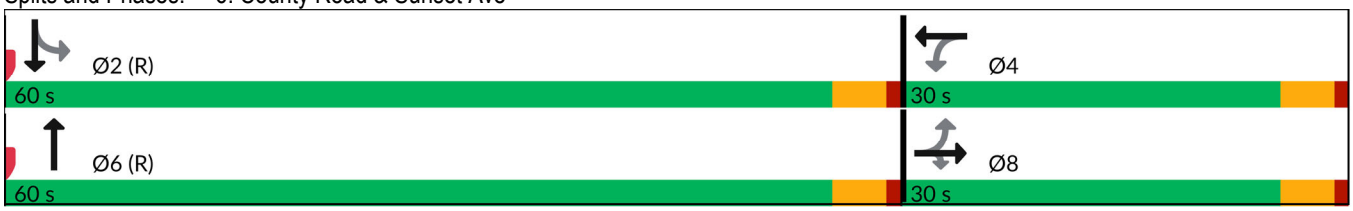
Approach	EB	NB	SB
HCM Control Delay, s/v	12.2	0.2	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	516	853	-	-
HCM Lane V/C Ratio	0.017	-	-	0.037	0.007	-	-
HCM Control Delay (s/veh)	7.9	-	-	12.2	9.3	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	9	88	16	0	818	9	456
Future Volume (vph)	16	9	88	16	0	818	9	456
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.07	0.03	0.27		0.11	0.32		0.19
Control Delay (s/veh)	32.8	31.8	9.7		19.7	4.0		3.5
Queue Delay	0.0	0.0	0.0		0.0	0.2		0.0
Total Delay (s/veh)	32.8	31.8	9.7		19.7	4.3		3.5
LOS	C	C	A		B	A		A
Approach Delay (s/veh)		14.7			19.7	4.3		3.5
Approach LOS		B			B	A		A

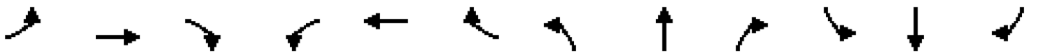
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay (s/veh): 5.1	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	17	9	93	28	893	489
v/c Ratio	0.07	0.03	0.27	0.11	0.32	0.19
Control Delay (s/veh)	32.8	31.8	9.7	19.7	4.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	32.8	31.8	9.7	19.7	4.3	3.5
Queue Length 50th (ft)	8	4	0	5	55	37
Queue Length 95th (ft)	27	18	41	28	94	52
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	390	527	515	439	2772	2617
Starvation Cap Reductn	0	0	0	0	1024	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.02	0.18	0.06	0.51	0.19

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	9	88	16	0	10	0	818	30	9	456	0
Future Volume (veh/h)	16	9	88	16	0	10	0	818	30	9	456	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	17	9	93	17	0	11	0	861	32	9	480	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	313	304	257	190	15	91	0	2577	96	60	2516	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1404	1870	1585	771	94	560	0	3587	130	25	3496	0
Grp Volume(v), veh/h	17	9	93	28	0	0	0	438	455	260	229	0
Grp Sat Flow(s),veh/h/ln	1404	1870	1585	1425	0	0	0	1777	1847	1819	1617	0
Q Serve(g_s), s	0.0	0.4	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0
Cycle Q Clear(g_c), s	0.7	0.4	4.7	1.2	0.0	0.0	0.0	0.0	0.0	3.8	3.9	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.03		0.00
Lane Grp Cap(c), veh/h	313	304	257	296	0	0	0	1311	1362	1383	1193	0
V/C Ratio(X)	0.05	0.03	0.36	0.09	0.00	0.00	0.00	0.33	0.33	0.19	0.19	0.00
Avail Cap(c_a), veh/h	483	530	449	464	0	0	0	1311	1362	1383	1193	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.76	0.76	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.9	31.7	33.5	32.1	0.0	0.0	0.0	0.0	0.0	3.6	3.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.1	0.0	0.0	0.0	0.5	0.5	0.3	0.4	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(95%),veh/ln	0.6	0.3	3.3	0.9	0.0	0.0	0.0	0.3	0.3	2.2	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.8	34.4	32.2	0.0	0.0	0.0	0.5	0.5	3.9	4.0	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h		119			28			893			489	
Approach Delay, s/veh		33.8			32.2			0.5			3.9	
Approach LOS		C			C			A			A	

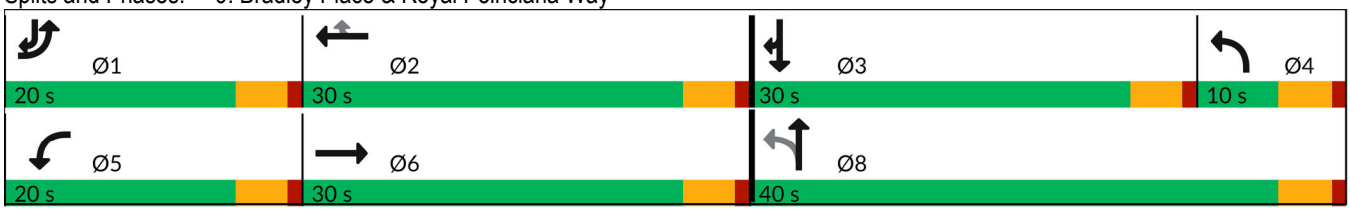
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.9		19.1		70.9		19.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		55.5		25.5		55.5		25.5				
Max Q Clear Time (g_c+I1), s		5.9		3.2		2.0		6.7				
Green Ext Time (p_c), s		3.3		0.1		7.0		0.3				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	4.8
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	464	679	84	313	71	73	195	82	220
Future Volume (vph)	464	679	84	313	71	73	195	82	220
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.69	0.66	0.25	0.29	0.13	0.17	0.49	0.23	0.29
Control Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
LOS	C	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		28.0		19.5			22.9	9.7	
Approach LOS		C		B			C	A	

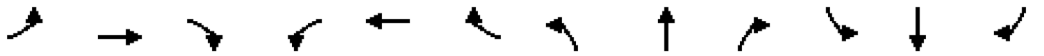
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 23.3	Intersection LOS: C
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	488	879	88	329	75	77	271	86	232
v/c Ratio	0.69	0.66	0.25	0.29	0.13	0.17	0.49	0.23	0.29
Control Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.8	24.1	29.6	20.9	1.6	21.0	23.5	29.2	2.5
Queue Length 50th (ft)	117	197	37	63	0	27	97	36	0
Queue Length 95th (ft)	168	267	77	96	9	57	166	75	27
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1337	363	1196	618	448	854	629	940
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.66	0.24	0.28	0.12	0.17	0.32	0.14	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	464	679	156	84	313	71	73	195	63	0	82	220
Future Volume (vph)	464	679	156	84	313	71	73	195	63	0	82	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3440		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3440		1770	3539	1583	1306	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	488	715	164	88	329	75	77	205	66	0	86	232
RTOR Reduction (vph)	0	19	0	0	0	51	0	15	0	0	0	141
Lane Group Flow (vph)	488	860	0	88	329	24	77	256	0	0	86	91
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1285		261	1135	508	424	548			361	623
v/s Ratio Prot	c0.14	c0.25		0.05	0.09		0.01	c0.14			0.05	0.06
v/s Ratio Perm						0.02	0.05					
v/c Ratio	0.71	0.67		0.34	0.29	0.05	0.18	0.47			0.24	0.15
Uniform Delay, d1	29.0	20.4		29.8	19.8	18.2	20.0	21.9			26.5	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	6.1	2.8		0.8	0.1	0.0	0.2	0.6			0.3	0.1
Delay (s)	35.2	23.2		30.6	19.9	18.3	20.2	22.6			26.9	15.3
Level of Service	D	C		C	B	B	C	C			C	B
Approach Delay (s/veh)		27.4			21.6			22.0			18.4	
Approach LOS		C			C			C			B	

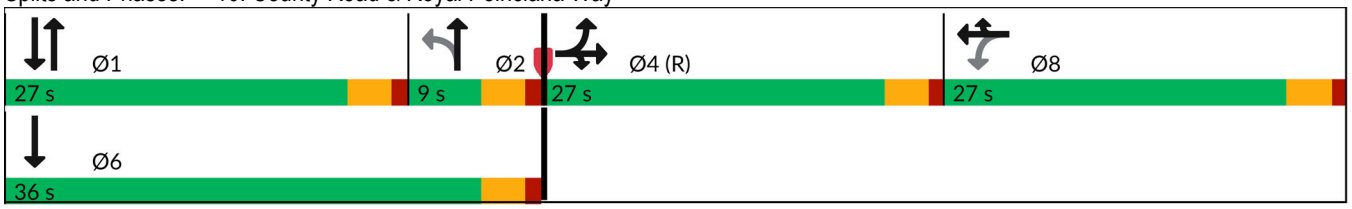
Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

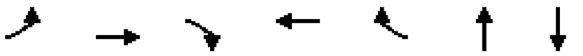
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	325	115	200	14	38	8	212	475	339		
Future Volume (vph)	325	115	200	14	38	8	212	475	339		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		8.4	8.4		48.5	48.5		
Actuated g/C Ratio	0.26	0.26	0.26		0.09	0.09		0.54	0.54		
v/c Ratio	0.53	0.53	0.38		0.38	0.03		0.64	0.32		
Control Delay (s/veh)	34.3	34.0	6.2		45.1	0.3		18.8	6.5		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	34.3	34.0	6.2		45.1	0.3		18.8	6.6		
LOS	C	C	A		D	A		B	A		
Approach Delay (s/veh)		25.4			39.4			18.8	6.6		
Approach LOS		C			D			B	A		

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay (s/veh): 18.0	Intersection LOS: B
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

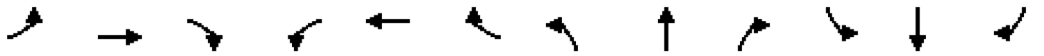
Splits and Phases: 10: County Road & Royal Poinciana Way





Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	229	234	211	55	8	767	603
v/c Ratio	0.53	0.53	0.38	0.38	0.03	0.64	0.32
Control Delay (s/veh)	34.3	34.0	6.2	45.1	0.3	18.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	34.3	34.0	6.2	45.1	0.3	18.8	6.6
Queue Length 50th (ft)	117	121	0	30	0	157	32
Queue Length 95th (ft)	194	198	53	65	0	244	60
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	441	561	399	485	1195	1890
Starvation Cap Reductn	0	0	0	0	0	0	529
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.53	0.38	0.14	0.02	0.64	0.44

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	115	200	14	38	8	212	475	42	0	339	234
Future Volume (vph)	325	115	200	14	38	8	212	475	42	0	339	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.99			1.00	
Satd. Flow (prot)	1681	1728	1583		1838	1583		3458			3323	
Flt Permitted	0.95	0.98	1.00		0.84	1.00		0.63			1.00	
Satd. Flow (perm)	1681	1728	1583		1562	1583		2210			3323	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	342	121	211	15	40	8	223	500	44	0	357	246
RTOR Reduction (vph)	0	0	159	0	0	7	0	4	0	0	99	0
Lane Group Flow (vph)	229	234	52	0	55	1	0	763	0	0	504	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		7.3	7.3		48.5			48.5	
Effective Green, g (s)	22.2	22.2	22.2		7.3	7.3		48.5			48.5	
Actuated g/C Ratio	0.25	0.25	0.25		0.08	0.08		0.54			0.54	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		126	128		1190			1790	
v/s Ratio Prot	c0.14	0.14	0.03			0.00					0.15	
v/s Ratio Perm					c0.04			c0.35				
v/c Ratio	0.55	0.55	0.13		0.44	0.01		0.64			0.28	
Uniform Delay, d1	29.6	29.5	26.4		39.4	38.0		14.6			11.3	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	5.2	5.0	0.7		2.4	0.0		1.2			0.1	
Delay (s)	34.8	34.6	27.1		41.8	38.0		15.8			8.7	
Level of Service	C	C	C		D	D		B			A	
Approach Delay (s/veh)		32.3			41.3			15.8			8.7	
Approach LOS		C			D			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	28	0	0	0	36	283	213	12	648	7
Future Vol, veh/h	2	2	28	0	0	0	36	283	213	12	648	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	29	0	0	0	38	298	224	13	682	7

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1198	1310	686	689	0	0	522	0	0
Stage 1	712	712	-	-	-	-	-	-	-
Stage 2	486	598	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	205	159	447	905	-	-	1044	-	-
Stage 1	486	436	-	-	-	-	-	-	-
Stage 2	618	491	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	194	0	447	905	-	-	1044	-	-
Mov Cap-2 Maneuver	194	0	-	-	-	-	-	-	-
Stage 1	466	0	-	-	-	-	-	-	-
Stage 2	611	0	-	-	-	-	-	-	-

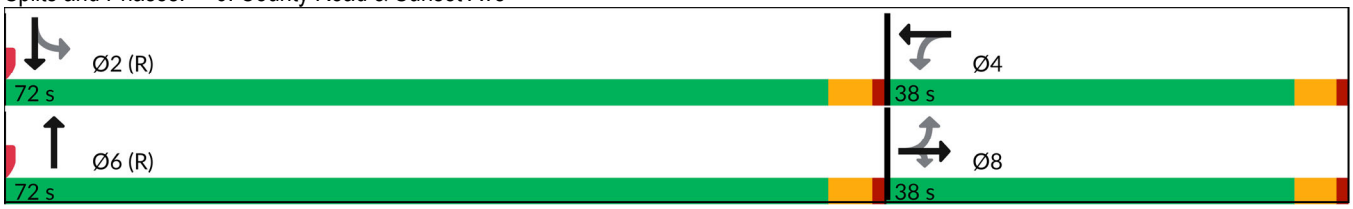
Approach	EB	NB	SB
HCM Control Delay, s/v	14.5	0.6	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	905	-	-	411	1044	-	-
HCM Lane V/C Ratio	0.042	-	-	0.082	0.012	-	-
HCM Control Delay (s/veh)	9.2	-	-	14.5	8.5	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	3	124	11	0	538	3	742
Future Volume (vph)	54	3	124	11	0	538	3	742
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.30	0.01	0.40		0.12	0.21		0.30
Control Delay (s/veh)	47.8	41.3	11.3		26.4	3.7		3.7
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	47.8	41.3	11.3		26.4	4.1		3.8
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		22.7			26.4	4.1		3.8
Approach LOS		C			C	A		A

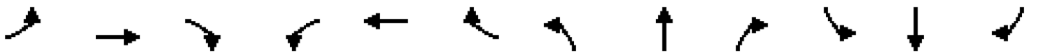
Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 6.5	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	57	3	131	26	583	784
v/c Ratio	0.30	0.01	0.40	0.12	0.21	0.30
Control Delay (s/veh)	47.8	41.3	11.3	26.4	3.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	47.8	41.3	11.3	26.4	4.1	3.8
Queue Length 50th (ft)	37	2	0	7	37	67
Queue Length 95th (ft)	78	11	55	33	95	85
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	573	484	2757	2639
Starvation Cap Reductn	0	0	0	0	1549	0
Spillback Cap Reductn	0	0	6	0	0	180
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.01	0.23	0.05	0.48	0.32

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	3	124	11	0	13	0	538	16	3	742	0
Future Volume (veh/h)	54	3	124	11	0	13	0	538	16	3	742	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	57	3	131	12	0	14	0	566	17	3	781	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	261	255	216	123	17	107	0	2755	83	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1400	1870	1585	552	121	785	0	3616	106	2	3567	0
Grp Volume(v), veh/h	57	3	131	26	0	0	0	285	298	420	364	0
Grp Sat Flow(s),veh/h/ln	1400	1870	1585	1459	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.1	0.2	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
Cycle Q Clear(g_c), s	3.6	0.2	8.6	1.5	0.0	0.0	0.0	0.0	0.0	6.9	7.0	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	261	255	216	246	0	0	0	1389	1448	1493	1264	0
V/C Ratio(X)	0.22	0.01	0.61	0.11	0.00	0.00	0.00	0.21	0.21	0.28	0.29	0.00
Avail Cap(c_a), veh/h	497	570	483	485	0	0	0	1389	1448	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.75	0.75	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.5	41.1	44.7	41.7	0.0	0.0	0.0	0.0	0.0	3.4	3.4	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.7	0.2	0.0	0.0	0.0	0.3	0.2	0.5	0.6	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(95%),veh/ln	2.6	0.1	6.3	1.1	0.0	0.0	0.0	0.2	0.2	4.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.9	41.1	47.5	41.9	0.0	0.0	0.0	0.3	0.2	3.8	3.9	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h		191			26			583			784	
Approach Delay, s/veh		46.0			41.9			0.2			3.9	
Approach LOS		D			D			A			A	

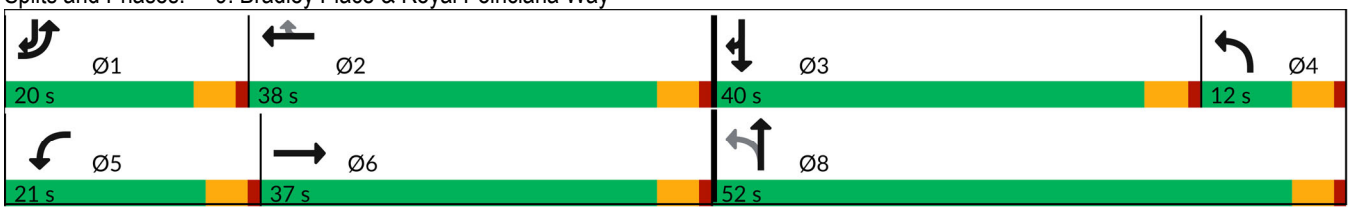
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.5		19.5		90.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		67.5		33.5		67.5		33.5				
Max Q Clear Time (g_c+I1), s		9.0		3.5		2.0		10.6				
Green Ext Time (p_c), s		5.9		0.1		4.0		0.6				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			8.3									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	295	372	97	640	44	234	188	120	563
Future Volume (vph)	295	372	97	640	44	234	188	120	563
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.8	35.1	15.4	29.7	29.7	36.1	36.1	25.9	41.7
Actuated g/C Ratio	0.17	0.37	0.16	0.31	0.31	0.38	0.38	0.27	0.44
v/c Ratio	0.55	0.39	0.36	0.61	0.08	0.50	0.40	0.25	0.78
Control Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
LOS	D	C	D	C	A	C	C	C	B
Approach Delay (s/veh)		31.7		31.1			24.4	20.8	
Approach LOS		C		C			C	C	

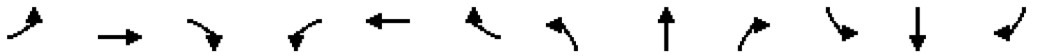
Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 95.3	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 27.5	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	311	504	102	674	46	246	278	126	593
v/c Ratio	0.55	0.39	0.36	0.61	0.08	0.50	0.40	0.25	0.78
Control Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	24.7	43.2	31.3	0.3	27.3	21.9	28.4	19.2
Queue Length 50th (ft)	93	118	58	182	0	109	114	61	175
Queue Length 95th (ft)	152	188	118	271	0	175	184	109	287
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	568	1282	311	1265	632	533	915	706	893
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	0.55	0.39	0.33	0.53	0.07	0.46	0.30	0.18	0.66

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	372	106	97	640	44	234	188	76	0	120	563
Future Volume (vph)	295	372	106	97	640	44	234	188	76	0	120	563
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3421		1770	3539	1583	1770	1782			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.66	1.00			1.00	1.00
Satd. Flow (perm)	3433	3421		1770	3539	1583	1226	1782			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	392	112	102	674	46	246	198	80	0	126	593
RTOR Reduction (vph)	0	22	0	0	0	31	0	14	0	0	0	69
Lane Group Flow (vph)	311	482	0	102	674	15	246	264	0	0	126	524
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.1		11.6	30.9	30.9	36.1	36.1			25.9	41.7
Effective Green, g (s)	15.8	35.1		11.6	30.9	30.9	36.1	36.1			25.9	41.7
Actuated g/C Ratio	0.16	0.36		0.12	0.32	0.32	0.37	0.37			0.27	0.43
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	563	1246		213	1135	507	491	668			501	685
v/s Ratio Prot	0.09	c0.14		0.06	c0.19		c0.03	0.15			0.07	c0.33
v/s Ratio Perm						0.01	0.16					
v/c Ratio	0.55	0.39		0.48	0.59	0.03	0.50	0.39			0.25	0.77
Uniform Delay, d1	37.0	22.6		39.5	27.4	22.4	24.0	22.1			27.6	23.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	3.9	0.9		1.7	0.8	0.0	0.8	0.4			0.3	5.1
Delay (s)	40.9	23.6		41.2	28.3	22.4	24.8	22.5			27.9	28.3
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		30.2			29.6			23.6			28.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	96.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

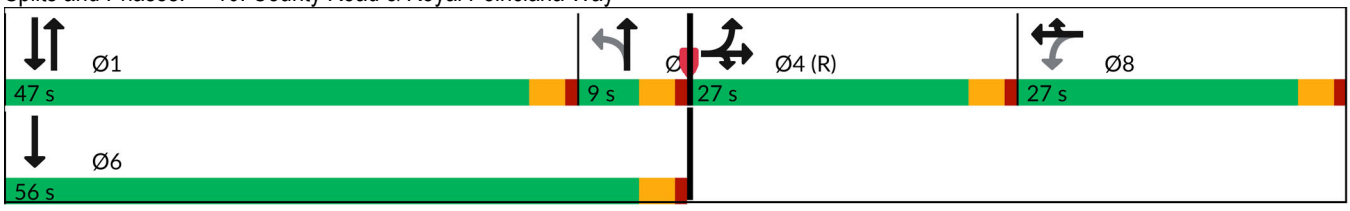
c Critical Lane Group

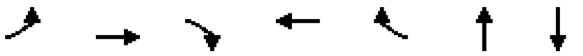
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	200	66	228	42	87	16	217	364	502		
Future Volume (vph)	200	66	228	42	87	16	217	364	502		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	28.1	28.1	28.1		14.6	14.6		55.3	55.3		
Actuated g/C Ratio	0.26	0.26	0.26		0.13	0.13		0.50	0.50		
v/c Ratio	0.32	0.32	0.41		0.65	0.06		1.10dl	0.52		
Control Delay (s/veh)	38.2	38.1	7.1		59.2	0.4		25.4	22.4		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.4		
Total Delay (s/veh)	38.2	38.1	7.1		59.2	0.4		25.4	23.8		
LOS	D	D	A		E	A		C	C		
Approach Delay (s/veh)		23.8			52.7			25.4	23.8		
Approach LOS		C			D			C	C		

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 26.2	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 10: County Road & Royal Poinciana Way

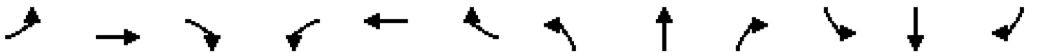




Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	139	141	240	136	17	645	923
v/c Ratio	0.32	0.32	0.41	0.65	0.06	1.10dl	0.52
Control Delay (s/veh)	38.2	38.1	7.1	59.2	0.4	25.4	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Total Delay (s/veh)	38.2	38.1	7.1	59.2	0.4	25.4	23.8
Queue Length 50th (ft)	89	90	0	92	0	156	230
Queue Length 95th (ft)	153	155	65	149	0	251	302
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	440	582	330	401	916	1803
Starvation Cap Reductn	0	0	0	0	0	0	640
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.41	0.41	0.04	0.70	0.79

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	66	228	42	87	16	217	364	32	0	502	375
Future Volume (vph)	200	66	228	42	87	16	217	364	32	0	502	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.98	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1726	1583		1833	1583		3450			3312	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.52			1.00	
Satd. Flow (perm)	1681	1726	1583		1581	1583		1830			3312	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	211	69	240	44	92	17	228	383	34	0	528	395
RTOR Reduction (vph)	0	0	179	0	0	15	0	3	0	0	116	0
Lane Group Flow (vph)	139	141	61	0	136	2	0	642	0	0	807	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	28.0	28.0	28.0		14.6	14.6		55.4			55.4	
Effective Green, g (s)	28.0	28.0	28.0		14.6	14.6		55.4			55.4	
Actuated g/C Ratio	0.25	0.25	0.25		0.13	0.13		0.50			0.50	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	427	439	402		209	210		921			1668	
v/s Ratio Prot	c0.08	0.08	0.04			0.00					0.24	
v/s Ratio Perm					c0.09			c0.35				
v/c Ratio	0.33	0.32	0.15		0.65	0.01		1.10dl			0.48	
Uniform Delay, d1	33.3	33.3	31.8		45.3	41.4		20.9			17.9	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.63	
Incremental Delay, d2	2.0	1.9	0.8		7.1	0.0		2.3			0.2	
Delay (s)	35.3	35.2	32.6		52.3	41.4		23.2			29.4	
Level of Service	D	D	C		D	D		C			C	
Approach Delay (s/veh)		34.0			51.1			23.2			29.4	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

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

c Critical Lane Group

SYNCHRO PRINTOUTS

BACKGROUND (2028) CONDITIONS

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	11	0	0	0	22	581	208	7	316	2
Future Vol, veh/h	3	5	11	0	0	0	22	581	208	7	316	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	12	0	0	0	23	612	219	7	333	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1116	1225	334	335	0	0	831	0	0
Stage 1	348	348	-	-	-	-	-	-	-
Stage 2	768	877	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	179	708	1224	-	-	801	-	-
Stage 1	715	634	-	-	-	-	-	-	-
Stage 2	458	366	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	224	0	708	1224	-	-	801	-	-
Mov Cap-2 Maneuver	224	0	-	-	-	-	-	-	-
Stage 1	701	0	-	-	-	-	-	-	-
Stage 2	454	0	-	-	-	-	-	-	-

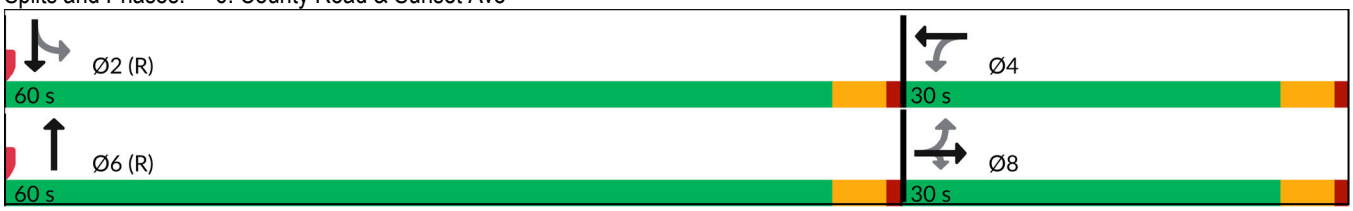
Approach	EB	NB	SB
HCM Control Delay, s/v	12.8	0.2	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	484	801	-	-
HCM Lane V/C Ratio	0.019	-	-	0.041	0.009	-	-
HCM Control Delay (s/veh)	8	-	-	12.8	9.5	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	10	96	18	0	897	10	500
Future Volume (vph)	18	10	96	18	0	897	10	500
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.08	0.04	0.29		0.12	0.35		0.21
Control Delay (s/veh)	32.9	31.9	9.5		20.3	4.6		3.6
Queue Delay	0.0	0.0	0.0		0.0	0.3		0.0
Total Delay (s/veh)	32.9	31.9	9.5		20.3	5.0		3.6
LOS	C	C	A		C	A		A
Approach Delay (s/veh)		14.8			20.3	5.0		3.6
Approach LOS		B			C	A		A

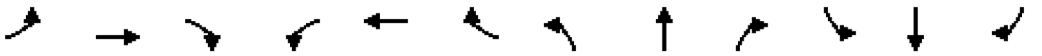
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay (s/veh): 5.6	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	19	11	101	31	979	537
v/c Ratio	0.08	0.04	0.29	0.12	0.35	0.21
Control Delay (s/veh)	32.9	31.9	9.5	20.3	4.6	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	32.9	31.9	9.5	20.3	5.0	3.6
Queue Length 50th (ft)	9	5	0	6	71	42
Queue Length 95th (ft)	29	20	43	31	111	58
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	389	527	520	436	2772	2600
Starvation Cap Reductn	0	0	0	0	1091	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.19	0.07	0.58	0.21

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	96	18	0	11	0	897	33	10	500	0
Future Volume (veh/h)	18	10	96	18	0	11	0	897	33	10	500	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	19	11	101	19	0	12	0	944	35	11	526	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	315	306	260	192	15	90	0	2573	95	64	2495	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1402	1870	1585	775	92	548	0	3588	130	30	3474	0
Grp Volume(v), veh/h	19	11	101	31	0	0	0	480	499	284	253	0
Grp Sat Flow(s),veh/h/ln	1402	1870	1585	1415	0	0	0	1777	1847	1802	1617	0
Q Serve(g_s), s	0.0	0.4	5.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s	0.8	0.4	5.1	1.4	0.0	0.0	0.0	0.0	0.0	4.3	4.4	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.04		0.00
Lane Grp Cap(c), veh/h	315	306	260	296	0	0	0	1308	1360	1368	1190	0
V/C Ratio(X)	0.06	0.04	0.39	0.10	0.00	0.00	0.00	0.37	0.37	0.21	0.21	0.00
Avail Cap(c_a), veh/h	483	530	449	462	0	0	0	1308	1360	1368	1190	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.8	31.7	33.6	32.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	0.0	0.0	0.5	0.4	0.3	0.4	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(95%),veh/ln	0.6	0.4	3.6	1.0	0.0	0.0	0.0	0.3	0.3	2.5	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.7	34.6	32.2	0.0	0.0	0.0	0.5	0.4	4.0	4.1	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h		131			31			979			537	
Approach Delay, s/veh		33.9			32.2			0.5			4.1	
Approach LOS		C			C			A			A	

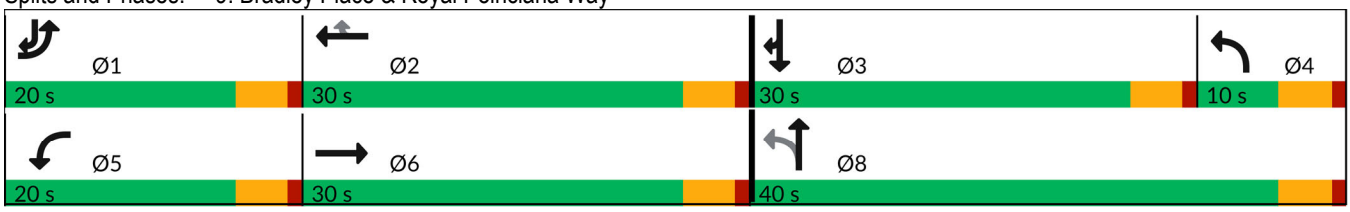
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.8		19.2		70.8		19.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		55.5		25.5		55.5		25.5				
Max Q Clear Time (g_c+I1), s		6.4		3.4		2.0		7.1				
Green Ext Time (p_c), s		3.7		0.1		8.1		0.3				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.8									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	505	787	87	391	74	111	203	85	247
Future Volume (vph)	505	787	87	391	74	111	203	85	247
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
LOS	D	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		31.5		20.3			23.5	9.5	
Approach LOS		C		C			C	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 25.5	Intersection LOS: C
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

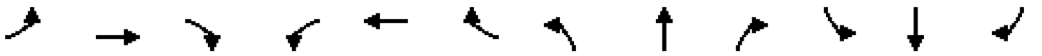
Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	532	1045	92	412	78	117	283	89	260
v/c Ratio	0.75	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	28.5	29.8	21.7	1.8	22.2	24.0	29.3	2.7
Queue Length 50th (ft)	129	251	39	82	0	42	103	38	2
Queue Length 95th (ft)	#200	#377	80	120	11	81	174	78	31
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1336	363	1196	618	447	854	629	949
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	0.75	0.78	0.25	0.34	0.13	0.26	0.33	0.14	0.27

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Future Volume (vph)	505	787	206	87	391	74	111	203	66	0	85	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3429		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3429		1770	3539	1583	1303	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	532	828	217	92	412	78	117	214	69	0	89	260
RTOR Reduction (vph)	0	23	0	0	0	53	0	15	0	0	0	152
Lane Group Flow (vph)	532	1022	0	92	412	25	117	268	0	0	89	108
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1280		261	1135	508	423	548			361	623
v/s Ratio Prot	c0.15	c0.30		0.05	0.12		0.01	c0.15			0.05	0.07
v/s Ratio Perm						0.02	0.07					
v/c Ratio	0.77	0.80		0.35	0.36	0.05	0.28	0.49			0.25	0.17
Uniform Delay, d1	29.5	21.8		29.9	20.3	18.3	20.6	22.1			26.6	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	8.3	5.3		0.8	0.2	0.0	0.4	0.7			0.4	0.1
Delay (s)	37.8	27.1		30.7	20.5	18.3	21.0	22.8			26.9	15.5
Level of Service	D	C		C	C	B	C	C			C	B
Approach Delay (s/veh)		30.7			21.8			22.3			18.4	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

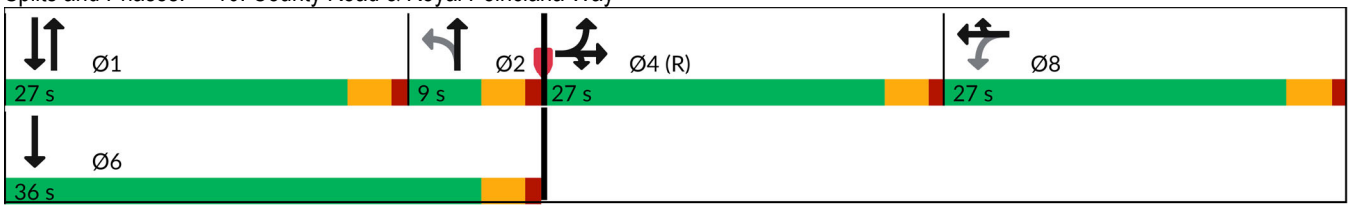
c Critical Lane Group

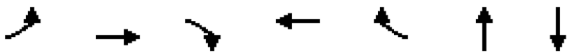
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	361	139	279	15	75	17	290	496	356		
Future Volume (vph)	361	139	279	15	75	17	290	496	356		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		10.3	10.3		46.8	46.8		
Actuated g/C Ratio	0.26	0.26	0.26		0.11	0.11		0.52	0.52		
v/c Ratio	0.60	0.61	0.47		0.50	0.06		0.89dl	0.36		
Control Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.3		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		26.8	7.5		
LOS	D	D	A		D	A		C	A		
Approach Delay (s/veh)		25.5			38.5			26.8	7.5		
Approach LOS		C			D			C	A		

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 21.8	Intersection LOS: C
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 10: County Road & Royal Poinciana Way

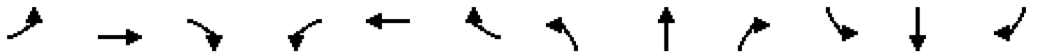




Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	258	268	294	95	18	873	652
v/c Ratio	0.60	0.61	0.47	0.50	0.06	0.89dl	0.36
Control Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	26.8	7.5
Queue Length 50th (ft)	135	141	0	52	0	213	35
Queue Length 95th (ft)	221	227	61	95	0	#370	65
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	442	623	427	485	1087	1831
Starvation Cap Reductn	0	0	0	0	0	0	449
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.61	0.47	0.22	0.04	0.80	0.47

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Future Volume (vph)	361	139	279	15	75	17	290	496	44	0	356	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1730	1583		1847	1583		3451			3314	
Flt Permitted	0.95	0.98	1.00		0.90	1.00		0.59			1.00	
Satd. Flow (perm)	1681	1730	1583		1670	1583		2084			3314	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	380	146	294	16	79	18	305	522	46	0	375	277
RTOR Reduction (vph)	0	0	221	0	0	16	0	3	0	0	110	0
Lane Group Flow (vph)	258	268	73	0	95	2	0	870	0	0	542	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Effective Green, g (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Actuated g/C Ratio	0.25	0.25	0.25		0.10	0.10		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		167	158		1083			1723	
v/s Ratio Prot	0.15	c0.15	0.05			0.00					0.16	
v/s Ratio Perm					c0.06			c0.42				
v/c Ratio	0.62	0.63	0.19		0.57	0.01		0.89dl			0.31	
Uniform Delay, d1	30.2	30.2	26.8		38.6	36.5		17.8			12.4	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	6.9	6.9	1.1		4.4	0.0		4.4			0.1	
Delay (s)	37.1	37.1	27.8		43.0	36.5		22.2			9.5	
Level of Service	D	D	C		D	D		C			A	
Approach Delay (s/veh)		33.8			42.0			22.2			9.5	
Approach LOS		C			D			C			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

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

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	31	0	0	0	39	310	234	13	711	8
Future Vol, veh/h	2	2	31	0	0	0	39	310	234	13	711	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	33	0	0	0	41	326	246	14	748	8

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1311	1434	752	756	0	0	572	0	0
Stage 1	780	780	-	-	-	-	-	-	-
Stage 2	531	654	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	175	134	410	855	-	-	1001	-	-
Stage 1	452	406	-	-	-	-	-	-	-
Stage 2	590	463	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	164	0	410	855	-	-	1001	-	-
Mov Cap-2 Maneuver	164	0	-	-	-	-	-	-	-
Stage 1	430	0	-	-	-	-	-	-	-
Stage 2	582	0	-	-	-	-	-	-	-

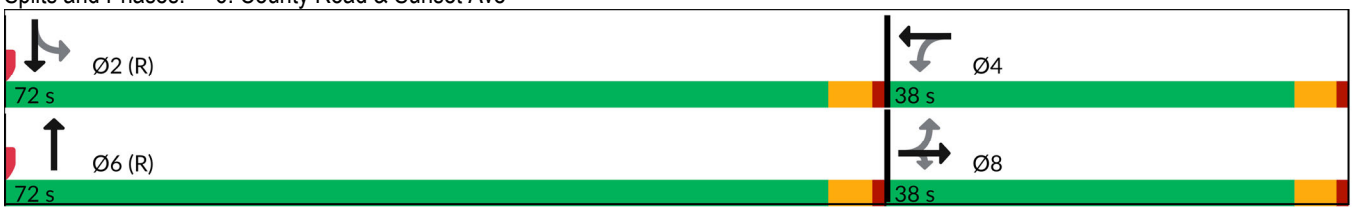
Approach	EB	NB	SB
HCM Control Delay, s/v	15.6	0.6	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	855	-	-	376	1001	-	-
HCM Lane V/C Ratio	0.048	-	-	0.098	0.014	-	-
HCM Control Delay (s/veh)	9.4	-	-	15.6	8.6	-	-
HCM Lane LOS	A	-	-	C	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	59	3	136	12	0	590	3	814
Future Volume (vph)	59	3	136	12	0	590	3	814
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.33	0.01	0.42		0.13	0.23		0.33
Control Delay (s/veh)	48.5	41.3	11.3		27.3	4.0		3.9
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	48.5	41.3	11.3		27.3	4.4		3.9
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		22.8			27.3	4.4		3.9
Approach LOS		C			C	A		A

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay (s/veh): 6.8	Intersection LOS: A
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

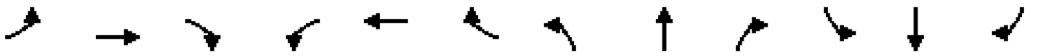
Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	62	3	143	28	640	860
v/c Ratio	0.33	0.01	0.42	0.13	0.23	0.33
Control Delay (s/veh)	48.5	41.3	11.3	27.3	4.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	48.5	41.3	11.3	27.3	4.4	3.9
Queue Length 50th (ft)	40	2	0	8	65	76
Queue Length 95th (ft)	83	11	57	35	m89	96
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	581	483	2757	2639
Starvation Cap Reductn	0	0	0	0	1525	0
Spillback Cap Reductn	0	0	15	1	0	383
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.01	0.25	0.06	0.52	0.38

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	3	136	12	0	14	0	590	18	3	814	0
Future Volume (veh/h)	59	3	136	12	0	14	0	590	18	3	814	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	62	3	143	13	0	15	0	621	19	3	857	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	262	255	216	123	16	106	0	2753	84	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1398	1870	1585	553	121	777	0	3614	108	2	3568	0
Grp Volume(v), veh/h	62	3	143	28	0	0	0	313	327	461	399	0
Grp Sat Flow(s),veh/h/ln	1398	1870	1585	1451	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.4	0.2	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s	4.0	0.2	9.4	1.6	0.0	0.0	0.0	0.0	0.0	7.8	7.9	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	262	255	216	246	0	0	0	1389	1447	1493	1264	0
V/C Ratio(X)	0.24	0.01	0.66	0.11	0.00	0.00	0.00	0.23	0.23	0.31	0.32	0.00
Avail Cap(c_a), veh/h	497	570	483	482	0	0	0	1389	1447	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.6	41.1	45.1	41.7	0.0	0.0	0.0	0.0	0.0	3.5	3.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.4	0.2	0.0	0.0	0.0	0.2	0.2	0.5	0.7	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(95%),veh/ln	2.8	0.1	7.0	1.2	0.0	0.0	0.0	0.2	0.2	4.5	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.1	41.1	48.6	41.9	0.0	0.0	0.0	0.2	0.2	4.0	4.1	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h		208			28			640			860	
Approach Delay, s/veh		46.8			41.9			0.2			4.1	
Approach LOS		D			D			A			A	

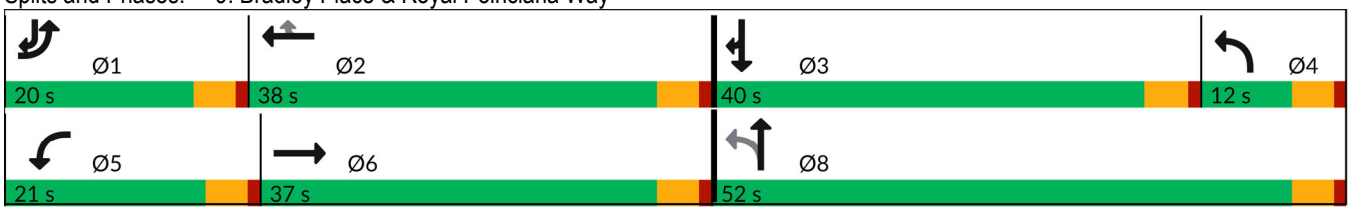
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.5		19.5		90.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		67.5		33.5		67.5		33.5				
Max Q Clear Time (g_c+I1), s		9.9		3.6		2.0		11.4				
Green Ext Time (p_c), s		6.7		0.1		4.5		0.6				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			8.4									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	330	472	101	771	46	301	196	125	615
Future Volume (vph)	330	472	101	771	46	301	196	125	615
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.8	35.3	15.5	30.0	30.0	40.4	40.4	30.1	45.8
Actuated g/C Ratio	0.16	0.35	0.16	0.30	0.30	0.40	0.40	0.30	0.46
v/c Ratio	0.64	0.54	0.39	0.76	0.09	0.61	0.39	0.24	0.84
Control Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
LOS	D	C	D	D	A	C	C	C	C
Approach Delay (s/veh)		35.1		36.7			26.0	25.1	
Approach LOS		D		D			C	C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 99.8	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 31.6	Intersection LOS: C
Intersection Capacity Utilization 87.3%	ICU Level of Service E
Analysis Period (min) 15	

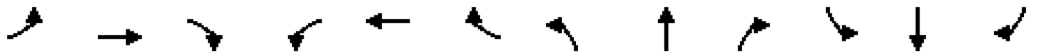
Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	347	662	106	812	48	317	289	132	647
v/c Ratio	0.64	0.54	0.39	0.76	0.09	0.61	0.39	0.24	0.84
Control Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	28.6	45.8	37.6	0.3	30.3	21.3	27.6	24.6
Queue Length 50th (ft)	116	188	67	262	0	148	120	64	228
Queue Length 95th (ft)	169	255	122	336	0	228	193	113	#378
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	541	1232	297	1207	608	556	874	673	849
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	0.64	0.54	0.36	0.67	0.08	0.57	0.33	0.20	0.76

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	472	157	101	771	46	301	196	79	0	125	615
Future Volume (vph)	330	472	157	101	771	46	301	196	79	0	125	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3407		1770	3539	1583	1770	1782			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)	3433	3407		1770	3539	1583	1213	1782			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	347	497	165	106	812	48	317	206	83	0	132	647
RTOR Reduction (vph)	0	27	0	0	0	33	0	14	0	0	0	44
Lane Group Flow (vph)	347	635	0	106	812	15	317	275	0	0	132	603
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Effective Green, g (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Actuated g/C Ratio	0.16	0.35		0.12	0.31	0.31	0.40	0.40			0.30	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	538	1193		203	1091	488	518	714			556	720
v/s Ratio Prot	0.10	c0.19		0.06	c0.23		c0.04	0.15			0.07	c0.38
v/s Ratio Perm						0.01	0.21					
v/c Ratio	0.64	0.53		0.52	0.74	0.03	0.61	0.39			0.24	0.84
Uniform Delay, d1	39.9	26.2		42.0	31.3	24.3	25.1	21.4			26.7	24.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	5.9	1.7		2.4	2.8	0.0	2.1	0.3			0.2	8.4
Delay (s)	45.7	27.9		44.4	34.1	24.4	27.3	21.7			26.9	32.6
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		34.0			34.7			24.6			31.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		

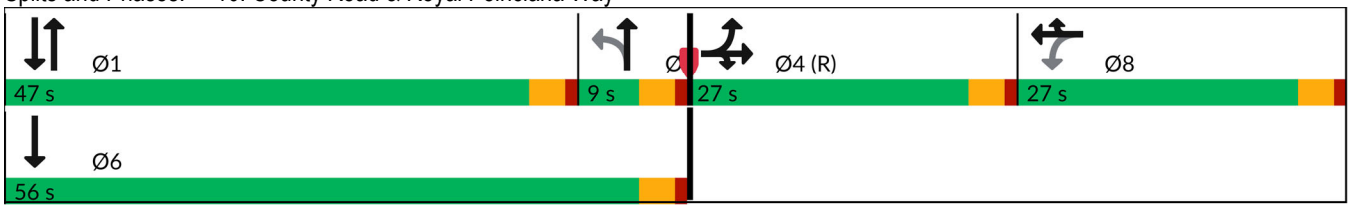
c Critical Lane Group

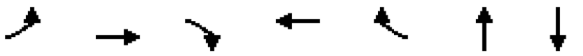
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	236	97	321	44	107	21	331	381	525		
Future Volume (vph)	236	97	321	44	107	21	331	381	525		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	24.3	24.3	24.3		16.1	16.1		57.7	57.7		
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52	0.52		
v/c Ratio	0.47	0.46	0.55		0.69	0.07		1.78dl	0.54		
Control Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		31.9	24.2		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.2		
Total Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		31.9	25.4		
LOS	D	D	A		E	A		C	C		
Approach Delay (s/veh)		25.5			51.9			31.9	25.4		
Approach LOS		C			D			C	C		

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C
Intersection Capacity Utilization 75.3%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 10: County Road & Royal Poinciana Way

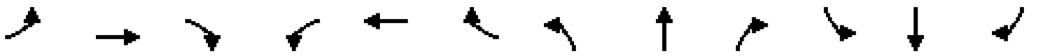




Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	174	176	338	159	22	784	1007
v/c Ratio	0.47	0.46	0.55	0.69	0.07	1.78dl	0.54
Control Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	31.9	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Total Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	31.9	25.4
Queue Length 50th (ft)	114	115	0	108	0	227	266
Queue Length 95th (ft)	189	190	77	169	0	#394	349
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	370	382	612	332	401	932	1851
Starvation Cap Reductn	0	0	0	0	0	0	580
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.46	0.55	0.48	0.05	0.84	0.79

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	97	321	44	107	21	331	381	33	0	525	431
Future Volume (vph)	236	97	321	44	107	21	331	381	33	0	525	431
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.93	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1733	1583		1836	1583		3439			3300	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.51			1.00	
Satd. Flow (perm)	1681	1733	1583		1589	1583		1796			3300	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	248	102	338	46	113	22	348	401	35	0	553	454
RTOR Reduction (vph)	0	0	264	0	0	19	0	3	0	0	122	0
Lane Group Flow (vph)	174	176	74	0	159	3	0	781	0	0	885	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Effective Green, g (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	369	381	348		232	231		942			1731	
v/s Ratio Prot	c0.10	0.10	0.05			0.00					0.27	
v/s Ratio Perm					c0.10			c0.43				
v/c Ratio	0.47	0.46	0.21		0.69	0.01		1.78dl			0.51	
Uniform Delay, d1	37.3	37.2	35.1		44.5	40.2		22.0			17.0	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.78	
Incremental Delay, d2	4.3	4.0	1.4		8.1	0.0		6.1			0.2	
Delay (s)	41.6	41.2	36.5		52.7	40.2		28.1			30.5	
Level of Service	D	D	D		D	D		C			C	
Approach Delay (s/veh)		39.0			51.1			28.1			30.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

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

SYNCHRO PRINTOUTS

TOTAL TRAFFIC (2028) CONDITIONS

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	11	0	0	0	22	581	210	9	316	2
Future Vol, veh/h	3	5	11	0	0	0	22	581	210	9	316	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	12	0	0	0	23	612	221	9	333	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1121	1231	334	335	0	0	833	0	0
Stage 1	352	352	-	-	-	-	-	-	-
Stage 2	769	879	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	228	177	708	1224	-	-	800	-	-
Stage 1	712	632	-	-	-	-	-	-	-
Stage 2	457	365	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	221	0	708	1224	-	-	800	-	-
Mov Cap-2 Maneuver	221	0	-	-	-	-	-	-	-
Stage 1	698	0	-	-	-	-	-	-	-
Stage 2	452	0	-	-	-	-	-	-	-

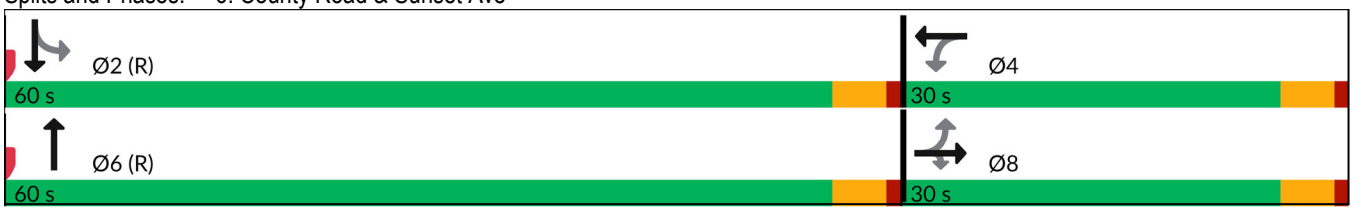
Approach	EB	NB	SB
HCM Control Delay, s/v	12.8	0.2	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	481	800	-	-
HCM Lane V/C Ratio	0.019	-	-	0.042	0.012	-	-
HCM Control Delay (s/veh)	8	-	-	12.8	9.6	-	-
HCM Lane LOS	A	-	-	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	10	97	18	0	897	10	500
Future Volume (vph)	18	10	97	18	0	897	10	500
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0	60.0	60.0	60.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	70.8		70.8
Actuated g/C Ratio	0.17	0.17	0.17		0.17	0.79		0.79
v/c Ratio	0.08	0.04	0.29		0.12	0.35		0.21
Control Delay (s/veh)	32.9	31.9	9.6		20.3	4.6		3.6
Queue Delay	0.0	0.0	0.0		0.0	0.3		0.0
Total Delay (s/veh)	32.9	31.9	9.6		20.3	5.0		3.6
LOS	C	C	A		C	A		A
Approach Delay (s/veh)		14.8			20.3	5.0		3.6
Approach LOS		B			C	A		A

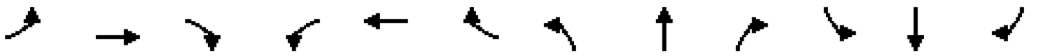
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay (s/veh): 5.6	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	19	11	102	31	979	537
v/c Ratio	0.08	0.04	0.29	0.12	0.35	0.21
Control Delay (s/veh)	32.9	31.9	9.6	20.3	4.6	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay (s/veh)	32.9	31.9	9.6	20.3	5.0	3.6
Queue Length 50th (ft)	9	5	0	6	71	42
Queue Length 95th (ft)	29	20	43	31	111	58
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	389	527	521	436	2772	2600
Starvation Cap Reductn	0	0	0	0	1092	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.20	0.07	0.58	0.21

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	97	18	0	11	0	897	33	10	500	0
Future Volume (veh/h)	18	10	97	18	0	11	0	897	33	10	500	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	19	11	102	19	0	12	0	944	35	11	526	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	316	306	260	191	15	90	0	2572	95	64	2495	0
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.74	0.74	0.00
Sat Flow, veh/h	1402	1870	1585	775	92	547	0	3588	130	30	3474	0
Grp Volume(v), veh/h	19	11	102	31	0	0	0	480	499	284	253	0
Grp Sat Flow(s),veh/h/ln	1402	1870	1585	1414	0	0	0	1777	1847	1802	1617	0
Q Serve(g_s), s	0.0	0.4	5.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0
Cycle Q Clear(g_c), s	0.8	0.4	5.2	1.4	0.0	0.0	0.0	0.0	0.0	4.3	4.4	0.0
Prop In Lane	1.00		1.00	0.61		0.39	0.00		0.07	0.04		0.00
Lane Grp Cap(c), veh/h	316	306	260	296	0	0	0	1308	1360	1368	1190	0
V/C Ratio(X)	0.06	0.04	0.39	0.10	0.00	0.00	0.00	0.37	0.37	0.21	0.21	0.00
Avail Cap(c_a), veh/h	483	530	449	461	0	0	0	1308	1360	1368	1190	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.8	31.6	33.6	32.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.2	0.0	0.0	0.0	0.5	0.4	0.3	0.4	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(95%),veh/ln	0.6	0.4	3.7	1.0	0.0	0.0	0.0	0.3	0.3	2.5	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.9	31.7	34.6	32.2	0.0	0.0	0.0	0.5	0.4	4.0	4.1	0.0
LnGrp LOS	C	C	C	C				A	A	A	A	
Approach Vol, veh/h		132			31			979			537	
Approach Delay, s/veh		34.0			32.2			0.5			4.1	
Approach LOS		C			C			A			A	

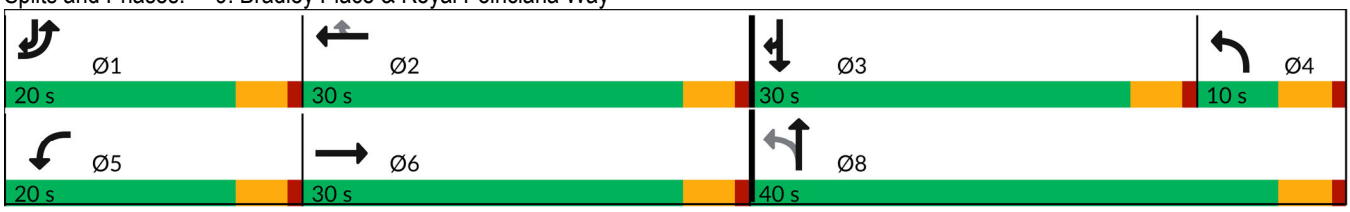
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.8		19.2		70.8		19.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		55.5		25.5		55.5		25.5				
Max Q Clear Time (g_c+I1), s		6.4		3.4		2.0		7.2				
Green Ext Time (p_c), s		3.7		0.1		8.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.8									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	506	787	87	391	75	111	204	85	247
Future Volume (vph)	506	787	87	391	75	111	204	85	247
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	30.0	20.0	30.0	30.0	10.0	40.0	30.0	
Total Split (%)	22.2%	33.3%	22.2%	33.3%	33.3%	11.1%	44.4%	33.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.6	29.1	15.1	24.0	24.0	24.1	22.8	15.1	31.8
Actuated g/C Ratio	0.21	0.38	0.20	0.32	0.32	0.32	0.30	0.20	0.42
v/c Ratio	0.76	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.6	28.5	29.8	21.7	1.9	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	28.5	29.8	21.7	1.9	22.2	24.0	29.3	2.7
LOS	D	C	C	C	A	C	C	C	A
Approach Delay (s/veh)		31.5		20.3			23.5	9.5	
Approach LOS		C		C			C	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 25.5	Intersection LOS: C
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

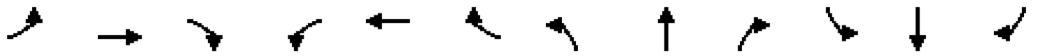
Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	533	1045	92	412	79	117	284	89	260
v/c Ratio	0.76	0.78	0.26	0.37	0.13	0.26	0.51	0.24	0.32
Control Delay (s/veh)	37.6	28.5	29.8	21.7	1.9	22.2	24.0	29.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.6	28.5	29.8	21.7	1.9	22.2	24.0	29.3	2.7
Queue Length 50th (ft)	129	251	39	82	0	42	103	38	2
Queue Length 95th (ft)	#200	#377	80	120	11	81	175	78	31
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	705	1336	363	1196	618	447	855	629	949
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	0.76	0.78	0.25	0.34	0.13	0.26	0.33	0.14	0.27

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	506	787	206	87	391	75	111	204	66	0	85	247
Future Volume (vph)	506	787	206	87	391	75	111	204	66	0	85	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3429		1770	3539	1583	1770	1795			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.70	1.00			1.00	1.00
Satd. Flow (perm)	3433	3429		1770	3539	1583	1303	1795			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	533	828	217	92	412	79	117	215	69	0	89	260
RTOR Reduction (vph)	0	23	0	0	0	54	0	15	0	0	0	152
Lane Group Flow (vph)	533	1022	0	92	412	25	117	269	0	0	89	108
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Effective Green, g (s)	15.6	29.1		11.5	25.0	25.0	23.8	23.8			15.1	30.7
Actuated g/C Ratio	0.20	0.37		0.15	0.32	0.32	0.31	0.31			0.19	0.39
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	687	1280		261	1135	508	423	548			361	623
v/s Ratio Prot	c0.16	c0.30		0.05	0.12		0.01	c0.15			0.05	0.07
v/s Ratio Perm						0.02	0.07					
v/c Ratio	0.78	0.80		0.35	0.36	0.05	0.28	0.49			0.25	0.17
Uniform Delay, d1	29.5	21.8		29.9	20.3	18.3	20.6	22.1			26.6	15.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	8.4	5.3		0.8	0.2	0.0	0.4	0.7			0.4	0.1
Delay (s)	37.9	27.1		30.7	20.5	18.3	21.0	22.8			26.9	15.5
Level of Service	D	C		C	C	B	C	C			C	B
Approach Delay (s/veh)		30.7			21.8			22.3			18.4	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

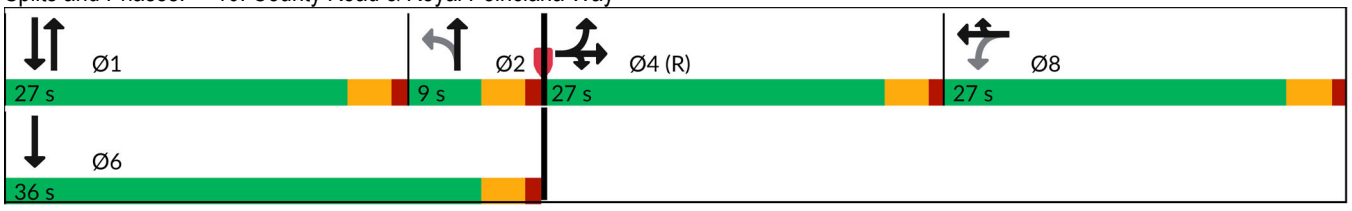
c Critical Lane Group

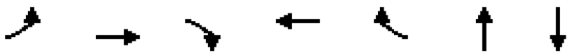
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	361	139	279	15	75	17	291	496	356		
Future Volume (vph)	361	139	279	15	75	17	291	496	356		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			27.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%			30%	40%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	23.0	23.0	23.0		10.3	10.3		46.8	46.8		
Actuated g/C Ratio	0.26	0.26	0.26		0.11	0.11		0.52	0.52		
v/c Ratio	0.60	0.61	0.47		0.50	0.06		0.89dl	0.36		
Control Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		27.0	7.3		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.2		
Total Delay (s/veh)	36.3	36.3	6.2		45.8	0.5		27.0	7.5		
LOS	D	D	A		D	A		C	A		
Approach Delay (s/veh)		25.5			38.5			27.0	7.5		
Approach LOS		C			D			C	A		

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 23 (26%), Referenced to phase 4:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 21.8	Intersection LOS: C
Intersection Capacity Utilization 72.2%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 10: County Road & Royal Poinciana Way

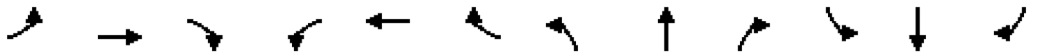




Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	258	268	294	95	18	874	652
v/c Ratio	0.60	0.61	0.47	0.50	0.06	0.89dl	0.36
Control Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	27.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	36.3	36.3	6.2	45.8	0.5	27.0	7.5
Queue Length 50th (ft)	135	141	0	52	0	214	35
Queue Length 95th (ft)	221	227	61	95	0	#372	65
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	429	442	623	427	485	1085	1831
Starvation Cap Reductn	0	0	0	0	0	0	449
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.61	0.47	0.22	0.04	0.81	0.47

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	361	139	279	15	75	17	291	496	44	0	356	263
Future Volume (vph)	361	139	279	15	75	17	291	496	44	0	356	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.94	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1730	1583		1847	1583		3451			3314	
Flt Permitted	0.95	0.98	1.00		0.90	1.00		0.59			1.00	
Satd. Flow (perm)	1681	1730	1583		1670	1583		2083			3314	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	380	146	294	16	79	18	306	522	46	0	375	277
RTOR Reduction (vph)	0	0	221	0	0	16	0	3	0	0	110	0
Lane Group Flow (vph)	258	268	73	0	95	2	0	871	0	0	542	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Effective Green, g (s)	22.2	22.2	22.2		9.0	9.0		46.8			46.8	
Actuated g/C Ratio	0.25	0.25	0.25		0.10	0.10		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	414	426	390		167	158		1083			1723	
v/s Ratio Prot	0.15	c0.15	0.05			0.00					0.16	
v/s Ratio Perm					c0.06			c0.42				
v/c Ratio	0.62	0.63	0.19		0.57	0.01		0.89dl			0.31	
Uniform Delay, d1	30.2	30.2	26.8		38.6	36.5		17.8			12.4	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			0.76	
Incremental Delay, d2	6.9	6.9	1.1		4.4	0.0		4.4			0.1	
Delay (s)	37.1	37.1	27.8		43.0	36.5		22.2			9.5	
Level of Service	D	D	C		D	D		C			A	
Approach Delay (s/veh)		33.8			42.0			22.2			9.5	
Approach LOS		C			D			C			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

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

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	31	0	0	0	39	310	237	15	711	8
Future Vol, veh/h	2	2	31	0	0	0	39	310	237	15	711	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	33	0	0	0	41	326	249	16	748	8

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1317	1441	752	756	0	0	575	0	0
Stage 1	784	784	-	-	-	-	-	-	-
Stage 2	533	657	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	174	133	410	855	-	-	998	-	-
Stage 1	450	404	-	-	-	-	-	-	-
Stage 2	588	462	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	163	0	410	855	-	-	998	-	-
Mov Cap-2 Maneuver	163	0	-	-	-	-	-	-	-
Stage 1	428	0	-	-	-	-	-	-	-
Stage 2	579	0	-	-	-	-	-	-	-

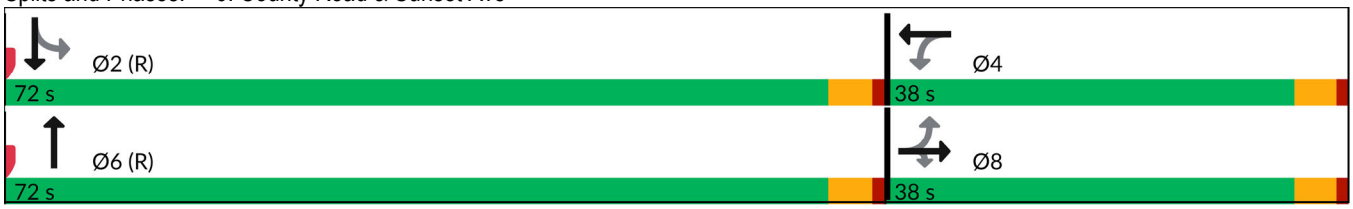
Approach	EB	NB	SB
HCM Control Delay, s/v	15.6	0.6	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	855	-	-	376	998	-	-
HCM Lane V/C Ratio	0.048	-	-	0.098	0.016	-	-
HCM Control Delay (s/veh)	9.4	-	-	15.6	8.7	-	-
HCM Lane LOS	A	-	-	C	A	-	-
HCM 95th %tile Q (veh)	0.2	-	-	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	3	138	12	0	590	3	814
Future Volume (vph)	61	3	138	12	0	590	3	814
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm	NA
Protected Phases		8			4	6		2
Permitted Phases	8		8	4			2	
Detector Phase	8	8	8	4	4	6	2	2
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	38.0	72.0	72.0	72.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0		15.0	86.0		86.0
Actuated g/C Ratio	0.14	0.14	0.14		0.14	0.78		0.78
v/c Ratio	0.34	0.01	0.43		0.13	0.23		0.33
Control Delay (s/veh)	48.8	41.3	11.2		27.3	4.0		3.9
Queue Delay	0.0	0.0	0.0		0.0	0.4		0.0
Total Delay (s/veh)	48.8	41.3	11.3		27.3	4.4		3.9
LOS	D	D	B		C	A		A
Approach Delay (s/veh)		23.0			27.3	4.4		3.9
Approach LOS		C			C	A		A

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 96 (87%), Referenced to phase 2:SBTL and 6:NBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay (s/veh): 6.8	Intersection LOS: A
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

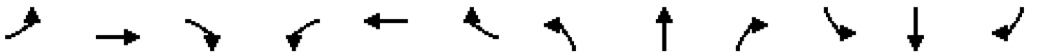
Splits and Phases: 6: County Road & Sunset Ave



Lane Group	EBL	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	64	3	145	28	640	860
v/c Ratio	0.34	0.01	0.43	0.13	0.23	0.33
Control Delay (s/veh)	48.8	41.3	11.2	27.3	4.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0
Total Delay (s/veh)	48.8	41.3	11.3	27.3	4.4	3.9
Queue Length 50th (ft)	42	2	0	8	65	76
Queue Length 95th (ft)	85	11	57	35	m89	96
Internal Link Dist (ft)		966		596	268	304
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	419	567	582	483	2757	2639
Starvation Cap Reductn	0	0	0	0	1525	0
Spillback Cap Reductn	0	0	16	1	0	385
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.01	0.26	0.06	0.52	0.38

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	3	138	12	0	14	0	590	18	3	814	0
Future Volume (veh/h)	61	3	138	12	0	14	0	590	18	3	814	0
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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	64	3	145	13	0	15	0	621	19	3	857	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	0
Cap, veh/h	262	255	216	123	16	106	0	2752	84	35	2723	0
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.00	1.00	1.00	0.78	0.78	0.00
Sat Flow, veh/h	1398	1870	1585	552	121	777	0	3614	108	2	3568	0
Grp Volume(v), veh/h	64	3	145	28	0	0	0	313	327	461	399	0
Grp Sat Flow(s),veh/h/ln	1398	1870	1585	1450	0	0	0	1777	1851	1868	1617	0
Q Serve(g_s), s	2.5	0.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s	4.1	0.2	9.6	1.6	0.0	0.0	0.0	0.0	0.0	7.8	7.9	0.0
Prop In Lane	1.00		1.00	0.46		0.54	0.00		0.06	0.01		0.00
Lane Grp Cap(c), veh/h	262	255	216	245	0	0	0	1389	1447	1493	1264	0
V/C Ratio(X)	0.24	0.01	0.67	0.11	0.00	0.00	0.00	0.23	0.23	0.31	0.32	0.00
Avail Cap(c_a), veh/h	497	570	483	482	0	0	0	1389	1447	1493	1264	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.58	0.58	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.7	41.1	45.2	41.7	0.0	0.0	0.0	0.0	0.0	3.5	3.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.6	0.2	0.0	0.0	0.0	0.2	0.2	0.5	0.7	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(95%),veh/ln	2.9	0.1	7.1	1.2	0.0	0.0	0.0	0.2	0.2	4.5	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.2	41.1	48.8	41.9	0.0	0.0	0.0	0.2	0.2	4.0	4.1	0.0
LnGrp LOS	D	D	D	D				A	A	A	A	
Approach Vol, veh/h		212			28			640			860	
Approach Delay, s/veh		47.0			41.9			0.2			4.1	
Approach LOS		D			D			A			A	

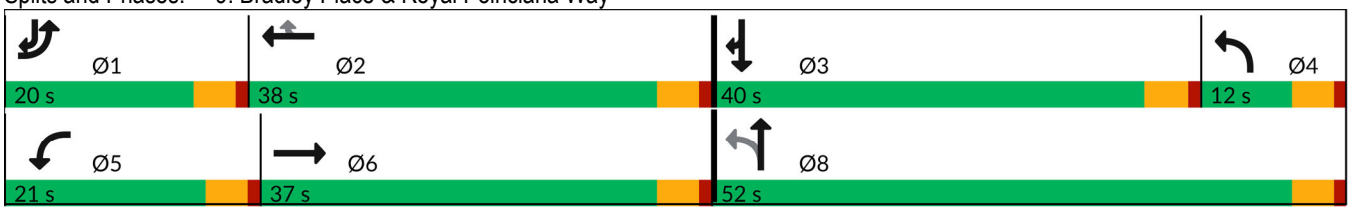
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.5		19.5		90.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		67.5		33.5		67.5		33.5				
Max Q Clear Time (g_c+I1), s		9.9		3.6		2.0		11.6				
Green Ext Time (p_c), s		6.7		0.1		4.5		0.6				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			8.5									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	331	472	101	772	47	301	197	125	615
Future Volume (vph)	331	472	101	772	47	301	197	125	615
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	NA	pt+ov
Protected Phases	1	6	5	2		4	8	3	3 1
Permitted Phases					2	8			
Detector Phase	1	6	5	2	2	4	8	3	3 1
Switch Phase									
Minimum Initial (s)	15.0	20.0	15.0	20.0	20.0	5.0	15.0	15.0	
Minimum Split (s)	19.5	24.5	19.5	24.5	24.5	9.5	19.5	19.5	
Total Split (s)	20.0	37.0	21.0	38.0	38.0	12.0	52.0	40.0	
Total Split (%)	18.2%	33.6%	19.1%	34.5%	34.5%	10.9%	47.3%	36.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
Recall Mode	Max	Max	None	None	None	None	None	None	
Act Effct Green (s)	15.8	35.3	15.5	30.0	30.0	40.4	40.4	30.1	45.8
Actuated g/C Ratio	0.16	0.35	0.16	0.30	0.30	0.40	0.40	0.30	0.46
v/c Ratio	0.64	0.54	0.39	0.77	0.09	0.61	0.40	0.24	0.84
Control Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
LOS	D	C	D	D	A	C	C	C	C
Approach Delay (s/veh)		35.2		36.7			26.0	25.1	
Approach LOS		D		D			C	C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 99.8	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 31.6	Intersection LOS: C
Intersection Capacity Utilization 87.3%	ICU Level of Service E
Analysis Period (min) 15	

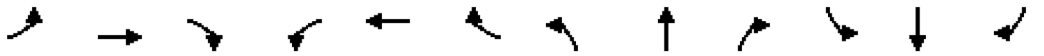
Splits and Phases: 9: Bradley Place & Royal Poinciana Way



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	348	662	106	813	49	317	290	132	647
v/c Ratio	0.64	0.54	0.39	0.77	0.09	0.61	0.40	0.24	0.84
Control Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.6	28.6	45.8	37.7	0.3	30.3	21.4	27.6	24.6
Queue Length 50th (ft)	117	188	67	262	0	148	121	64	228
Queue Length 95th (ft)	170	255	122	337	0	228	194	113	#378
Internal Link Dist (ft)		488		982			490	260	
Turn Bay Length (ft)	200		150		150				150
Base Capacity (vph)	541	1232	297	1207	608	556	874	673	849
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	0.64	0.54	0.36	0.67	0.08	0.57	0.33	0.20	0.76

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	331	472	157	101	772	47	301	197	79	0	125	615
Future Volume (vph)	331	472	157	101	772	47	301	197	79	0	125	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	3433	3407		1770	3539	1583	1770	1783			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)	3433	3407		1770	3539	1583	1213	1783			1863	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	348	497	165	106	813	49	317	207	83	0	132	647
RTOR Reduction (vph)	0	27	0	0	0	34	0	14	0	0	0	44
Lane Group Flow (vph)	348	635	0	106	813	15	317	276	0	0	132	603
Turn Type	Prot	NA		Prot	NA	Perm	pm+pt	NA			NA	pt+ov
Protected Phases	1	6		5	2		4	8			3	3 1
Permitted Phases						2	8					
Actuated Green, G (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Effective Green, g (s)	15.8	35.3		11.6	31.1	31.1	40.4	40.4			30.1	45.9
Actuated g/C Ratio	0.16	0.35		0.12	0.31	0.31	0.40	0.40			0.30	0.46
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	538	1193		203	1091	488	518	714			556	720
v/s Ratio Prot	0.10	c0.19		0.06	c0.23		c0.04	0.15			0.07	c0.38
v/s Ratio Perm						0.01	0.21					
v/c Ratio	0.65	0.53		0.52	0.75	0.03	0.61	0.39			0.24	0.84
Uniform Delay, d1	39.9	26.2		42.0	31.3	24.3	25.1	21.4			26.7	24.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	5.9	1.7		2.4	2.8	0.0	2.1	0.3			0.2	8.4
Delay (s)	45.8	27.9		44.4	34.1	24.4	27.3	21.8			26.9	32.6
Level of Service	D	C		D	C	C	C	C			C	C
Approach Delay (s/veh)		34.0			34.7			24.6			31.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		

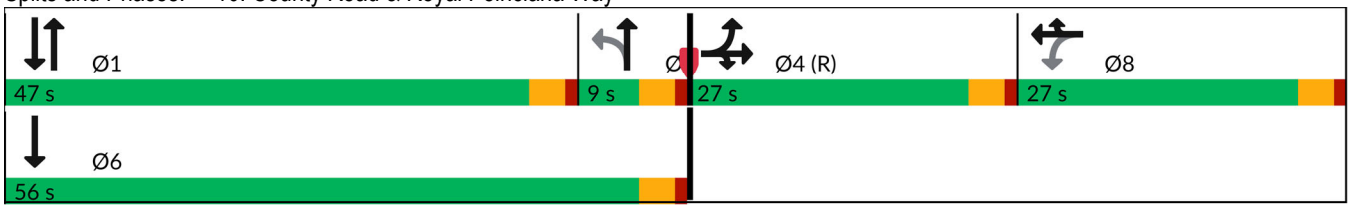
c Critical Lane Group

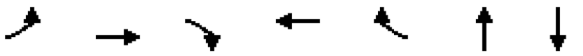
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT	Ø1	Ø6
Lane Configurations											
Traffic Volume (vph)	236	97	321	44	107	21	332	381	526		
Future Volume (vph)	236	97	321	44	107	21	332	381	526		
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA	NA		
Protected Phases	4	4	4		8	8		1 2	1 6	1	6
Permitted Phases				8			2				
Detector Phase	4	4	4	8	8	8	2	1 2	1 6		
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	10.0			10.0	20.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5			22.5	24.0
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	9.0			47.0	56.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	8.2%			43%	51%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0					
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0					
Lead/Lag							Lag			Lead	
Lead-Lag Optimize?							Yes			Yes	
Recall Mode	C-Max	C-Max	C-Max	None	None	None	None			None	None
Act Effct Green (s)	24.2	24.2	24.2		16.1	16.1		57.7	57.7		
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52	0.52		
v/c Ratio	0.47	0.46	0.55		0.69	0.07		1.80dl	0.55		
Control Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		32.0	24.1		
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	1.3		
Total Delay (s/veh)	42.9	42.5	7.8		59.0	0.5		32.0	25.4		
LOS	D	D	A		E	A		C	C		
Approach Delay (s/veh)		25.6			51.9			32.0	25.4		
Approach LOS		C			D			C	C		

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 87 (79%), Referenced to phase 4:EBTL, Start of Green		
Natural Cycle: 90		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.83		
Intersection Signal Delay (s/veh): 29.2	Intersection LOS: C	
Intersection Capacity Utilization 75.4%	ICU Level of Service D	
Analysis Period (min) 15		

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

Splits and Phases: 10: County Road & Royal Poinciana Way

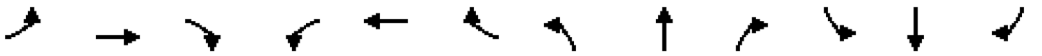




Lane Group	EBL	EBT	EBR	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	174	176	338	159	22	785	1009
v/c Ratio	0.47	0.46	0.55	0.69	0.07	1.80dl	0.55
Control Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	32.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Delay (s/veh)	42.9	42.5	7.8	59.0	0.5	32.0	25.4
Queue Length 50th (ft)	114	115	0	108	0	227	266
Queue Length 95th (ft)	189	190	77	169	0	#396	349
Internal Link Dist (ft)		982		410		521	268
Turn Bay Length (ft)	400						
Base Capacity (vph)	370	381	612	332	401	932	1851
Starvation Cap Reductn	0	0	0	0	0	0	579
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.46	0.55	0.48	0.05	0.84	0.79

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	236	97	321	44	107	21	332	381	33	0	526	432
Future Volume (vph)	236	97	321	44	107	21	332	381	33	0	526	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.95	
Frt	1.00	1.00	0.85		1.00	0.85		0.99			0.93	
Flt Protected	0.95	0.98	1.00		0.99	1.00		0.98			1.00	
Satd. Flow (prot)	1681	1733	1583		1836	1583		3439			3300	
Flt Permitted	0.95	0.98	1.00		0.85	1.00		0.51			1.00	
Satd. Flow (perm)	1681	1733	1583		1589	1583		1797			3300	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	248	102	338	46	113	22	349	401	35	0	554	455
RTOR Reduction (vph)	0	0	264	0	0	19	0	3	0	0	122	0
Lane Group Flow (vph)	174	176	74	0	159	3	0	782	0	0	887	0
Turn Type	Split	NA	Prot	Perm	NA	Prot	custom	NA			NA	
Protected Phases	4	4	4		8	8		1 2			1 6	
Permitted Phases				8			2					
Actuated Green, G (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Effective Green, g (s)	24.2	24.2	24.2		16.1	16.1		57.7			57.7	
Actuated g/C Ratio	0.22	0.22	0.22		0.15	0.15		0.52			0.52	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0						
Lane Grp Cap (vph)	369	381	348		232	231		942			1731	
v/s Ratio Prot	c0.10	0.10	0.05			0.00					0.27	
v/s Ratio Perm					c0.10			c0.44				
v/c Ratio	0.47	0.46	0.21		0.69	0.01		1.80dl			0.51	
Uniform Delay, d1	37.3	37.2	35.1		44.5	40.2		22.0			17.0	
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.78	
Incremental Delay, d2	4.3	4.0	1.4		8.1	0.0		6.3			0.2	
Delay (s)	41.6	41.2	36.5		52.7	40.2		28.3			30.5	
Level of Service	D	D	D		D	D		C			C	
Approach Delay (s/veh)		39.0			51.1			28.3			30.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

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

c Critical Lane Group

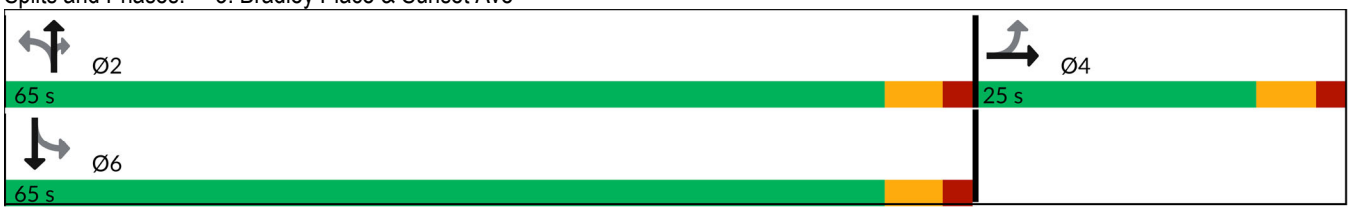
SYNCHRO PRINTOUTS

BRADLEY PLACE AT SUNSET AVENUE – SIGNALIZED ALTERNATIVE

Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	22	581	208	7	316
Future Volume (vph)	5	22	581	208	7	316
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.07	0.92	0.92	0.92	0.92	0.92
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.9	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.9	1.6
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	28.3		1.9			1.6
Approach LOS	C		A			A

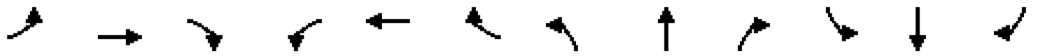
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 85.3	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay (s/veh): 2.2	Intersection LOS: A
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Bradley Place & Sunset Ave



Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	23	612	219	7	335
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.9	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.9	1.6
Queue Length 50th (ft)	4	0	0	0	0	0
Queue Length 95th (ft)	27	7	128	13	3	60
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	389	955	1709	1469	725	1707
Starvation Cap Reductn	0	0	205	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.41	0.15	0.01	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	11	0	0	0	22	581	208	7	316	2
Future Volume (veh/h)	3	5	11	0	0	0	22	581	208	7	316	2
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	5	12				23	612	219	7	333	2
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	6	10	23				905	1519	1287	575	1508	9
Arrive On Green	0.02	0.02	0.02				0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	252	419	1006				1045	1870	1585	660	1857	11
Grp Volume(v), veh/h	20	0	0				23	612	219	7	0	335
Grp Sat Flow(s),veh/h/ln	1677	0	0				1045	1870	1585	660	0	1868
Q Serve(g_s), s	0.9	0.0	0.0				0.4	6.6	2.2	0.2	0.0	3.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0				3.4	6.6	2.2	6.9	0.0	3.0
Prop In Lane	0.15		0.60				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	38	0	0				905	1519	1287	575	0	1517
V/C Ratio(X)	0.52	0.00	0.00				0.03	0.40	0.17	0.01	0.00	0.22
Avail Cap(c_a), veh/h	438	0	0				905	1519	1287	575	0	1517
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0				1.9	1.9	1.5	2.9	0.0	1.6
Incr Delay (d2), s/veh	10.6	0.0	0.0				0.1	0.8	0.3	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0				0.1	2.1	0.6	0.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	0.0				2.0	2.7	1.8	2.9	0.0	1.9
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		20						854			342	
Approach Delay, s/veh		45.7						2.4			1.9	
Approach LOS		D						A			A	

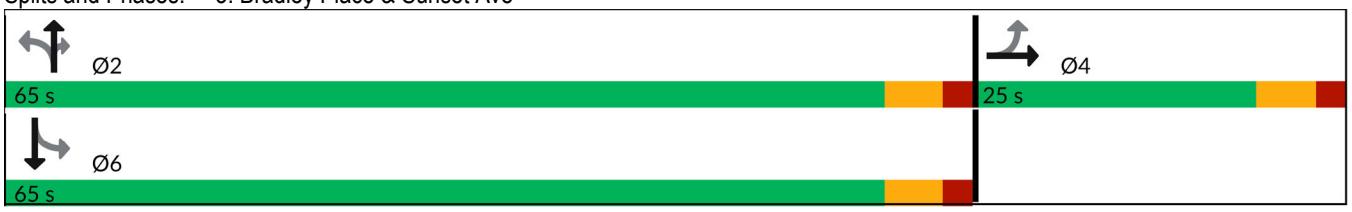
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		7.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		8.6		2.9		8.9						
Green Ext Time (p_c), s		5.9		0.0		2.3						

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			3.0									
HCM 6th LOS			A									

Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	39	310	234	13	711
Future Volume (vph)	2	39	310	234	13	711
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.4	76.7	76.7	76.7	76.7	76.7
Actuated g/C Ratio	0.07	0.88	0.88	0.88	0.88	0.88
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	20.5		1.9			3.5
Approach LOS	C		A			A

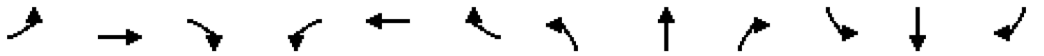
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.5	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay (s/veh): 3.3	Intersection LOS: A
Intersection Capacity Utilization 52.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Bradley Place & Sunset Ave



Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	41	326	246	14	756
v/c Ratio	0.25	0.07	0.20	0.17	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
Queue Length 50th (ft)	2	4	32	0	1	104
Queue Length 95th (ft)	32	11	61	13	5	188
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	382	571	1633	1418	920	1630
Starvation Cap Reductn	0	0	877	715	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.43	0.35	0.02	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	31	0	0	0	39	310	234	13	711	8
Future Volume (veh/h)	2	2	31	0	0	0	39	310	234	13	711	8
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	33				41	326	246	14	748	8
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	3	3	52				569	1498	1270	736	1480	16
Arrive On Green	0.04	0.04	0.04				0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	87	87	1434				708	1870	1585	840	1847	20
Grp Volume(v), veh/h	37	0	0				41	326	246	14	0	756
Grp Sat Flow(s),veh/h/ln	1608	0	0				708	1870	1585	840	0	1867
Q Serve(g_s), s	1.7	0.0	0.0				1.5	3.1	2.7	0.3	0.0	10.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0				11.5	3.1	2.7	3.4	0.0	10.0
Prop In Lane	0.05		0.89				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	58	0	0				569	1498	1270	736	0	1495
V/C Ratio(X)	0.64	0.00	0.00				0.07	0.22	0.19	0.02	0.00	0.51
Avail Cap(c_a), veh/h	415	0	0				569	1498	1270	736	0	1495
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	0.0				4.4	1.8	1.7	2.2	0.0	2.5
Incr Delay (d2), s/veh	11.1	0.0	0.0				0.2	0.3	0.3	0.0	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.0				0.4	1.1	0.8	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.1	0.0	0.0				4.6	2.1	2.1	2.2	0.0	3.7
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		37						613			770	
Approach Delay, s/veh		46.1						2.3			3.6	
Approach LOS		D						A			A	

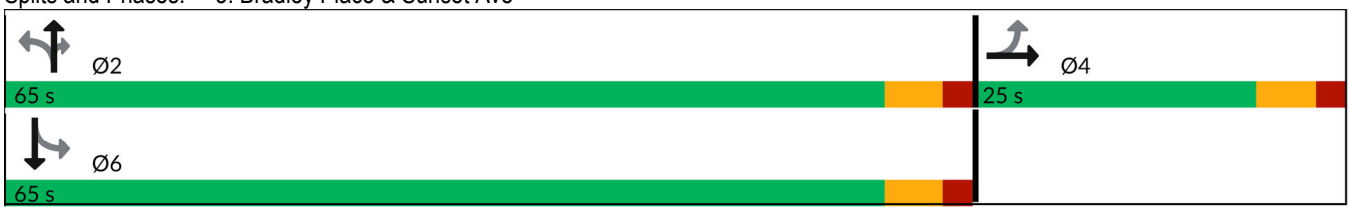
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		8.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		13.5		3.7		12.0						
Green Ext Time (p_c), s		3.5		0.1		6.8						

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.2									
HCM 6th LOS			A									

Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	22	581	210	9	316
Future Volume (vph)	5	22	581	210	9	316
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.2	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.07	0.92	0.92	0.92	0.92	0.92
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.8	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.8	1.6
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	28.3		1.9			1.6
Approach LOS	C		A			A

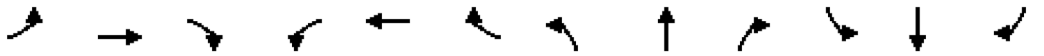
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 85.3	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay (s/veh): 2.2	Intersection LOS: A
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Bradley Place & Sunset Ave



Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	23	612	221	9	335
v/c Ratio	0.15	0.02	0.36	0.15	0.01	0.20
Control Delay (s/veh)	28.3	1.7	2.2	0.6	1.8	1.6
Queue Delay	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	28.3	1.7	2.3	0.6	1.8	1.6
Queue Length 50th (ft)	4	0	0	0	0	0
Queue Length 95th (ft)	27	7	128	13	4	60
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	389	955	1709	1470	725	1707
Starvation Cap Reductn	0	0	205	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.02	0.41	0.15	0.01	0.20

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	11	0	0	0	22	581	210	9	316	2
Future Volume (veh/h)	3	5	11	0	0	0	22	581	210	9	316	2
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	5	12				23	612	221	9	333	2
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	6	10	23				905	1519	1287	574	1508	9
Arrive On Green	0.02	0.02	0.02				0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	252	419	1006				1045	1870	1585	659	1857	11
Grp Volume(v), veh/h	20	0	0				23	612	221	9	0	335
Grp Sat Flow(s),veh/h/ln	1677	0	0				1045	1870	1585	659	0	1868
Q Serve(g_s), s	0.9	0.0	0.0				0.4	6.6	2.2	0.3	0.0	3.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0				3.4	6.6	2.2	6.9	0.0	3.0
Prop In Lane	0.15		0.60				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	38	0	0				905	1519	1287	574	0	1517
V/C Ratio(X)	0.52	0.00	0.00				0.03	0.40	0.17	0.02	0.00	0.22
Avail Cap(c_a), veh/h	438	0	0				905	1519	1287	574	0	1517
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0				1.9	1.9	1.5	2.9	0.0	1.6
Incr Delay (d2), s/veh	10.6	0.0	0.0				0.1	0.8	0.3	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0				0.1	2.1	0.6	0.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	0.0				2.0	2.7	1.8	2.9	0.0	1.9
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		20						856			344	
Approach Delay, s/veh		45.7						2.4			1.9	
Approach LOS		D						A			A	

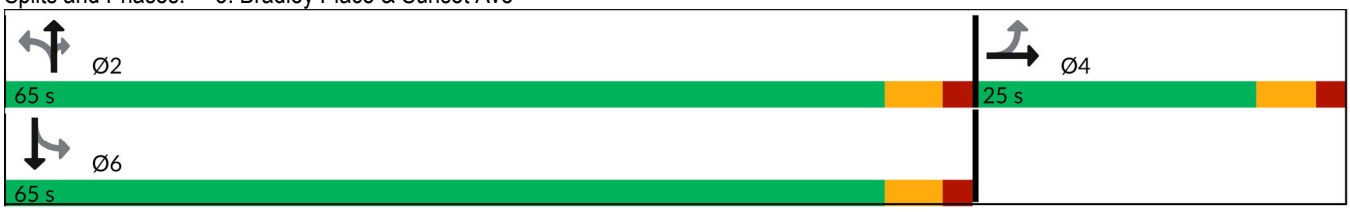
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		7.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		8.6		2.9		8.9						
Green Ext Time (p_c), s		5.9		0.0		2.3						

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			3.0									
HCM 6th LOS			A									

Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	39	310	237	15	711
Future Volume (vph)	2	39	310	237	15	711
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		2		2	6	
Detector Phase	4	2	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	25.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	72.2%	72.2%	72.2%	72.2%	72.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	Max	Max	Max	Max	Max
Act Effct Green (s)	6.4	76.7	76.7	76.7	76.7	76.7
Actuated g/C Ratio	0.07	0.88	0.88	0.88	0.88	0.88
v/c Ratio	0.25	0.07	0.20	0.18	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
LOS	C	A	A	A	A	A
Approach Delay (s/veh)	20.5		1.9			3.5
Approach LOS	C		A			A

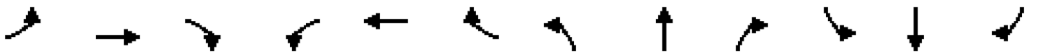
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.5	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay (s/veh): 3.3	Intersection LOS: A
Intersection Capacity Utilization 52.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Bradley Place & Sunset Ave



Lane Group	EBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	41	326	249	16	756
v/c Ratio	0.25	0.07	0.20	0.18	0.02	0.46
Control Delay (s/veh)	20.5	2.3	2.1	0.6	2.1	3.5
Queue Delay	0.0	0.0	0.5	0.3	0.0	0.0
Total Delay (s/veh)	20.5	2.3	2.6	0.9	2.1	3.5
Queue Length 50th (ft)	2	4	32	0	1	104
Queue Length 95th (ft)	32	11	61	13	5	188
Internal Link Dist (ft)	263		260			325
Turn Bay Length (ft)		100		100	100	
Base Capacity (vph)	382	571	1633	1419	920	1630
Starvation Cap Reductn	0	0	877	713	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.43	0.35	0.02	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	31	0	0	0	39	310	237	15	711	8
Future Volume (veh/h)	2	2	31	0	0	0	39	310	237	15	711	8
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	33				41	326	249	16	748	8
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	3	3	52				569	1498	1270	734	1480	16
Arrive On Green	0.04	0.04	0.04				0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	87	87	1434				708	1870	1585	838	1847	20
Grp Volume(v), veh/h	37	0	0				41	326	249	16	0	756
Grp Sat Flow(s),veh/h/ln	1608	0	0				708	1870	1585	838	0	1867
Q Serve(g_s), s	1.7	0.0	0.0				1.5	3.1	2.7	0.3	0.0	10.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0				11.5	3.1	2.7	3.4	0.0	10.0
Prop In Lane	0.05		0.89				1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	58	0	0				569	1498	1270	734	0	1495
V/C Ratio(X)	0.64	0.00	0.00				0.07	0.22	0.20	0.02	0.00	0.51
Avail Cap(c_a), veh/h	415	0	0				569	1498	1270	734	0	1495
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	0.0				4.4	1.8	1.7	2.2	0.0	2.5
Incr Delay (d2), s/veh	11.1	0.0	0.0				0.2	0.3	0.3	0.1	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.0				0.4	1.1	0.9	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.1	0.0	0.0				4.6	2.1	2.1	2.2	0.0	3.7
LnGrp LOS	D						A	A	A	A		A
Approach Vol, veh/h		37						616			772	
Approach Delay, s/veh		46.1						2.3			3.6	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		65.0		8.7		65.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		59.0		19.0		59.0						
Max Q Clear Time (g_c+I1), s		13.5		3.7		12.0						
Green Ext Time (p_c), s		3.5		0.1		6.9						

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.1									
HCM 6th LOS			A									

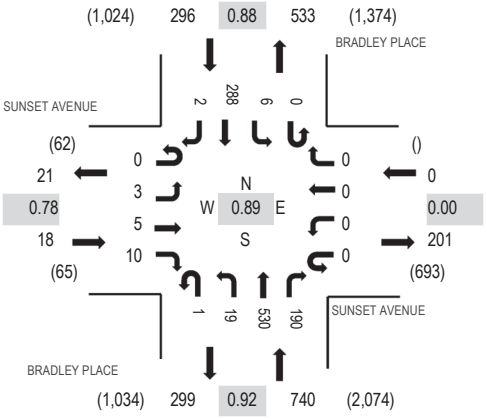
APPENDIX C

TRAFFIC COUNTS

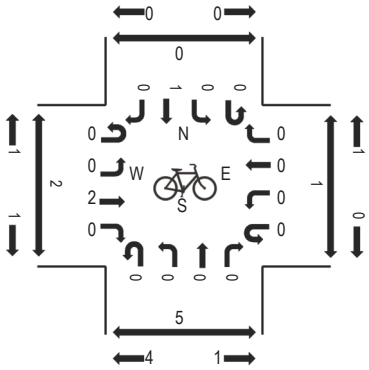
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 13 BRADLEY PLACE & SUNSET AVENUE AM
Date: Wednesday, March 13, 2024
Peak Hour: 08:30 AM - 09:30 AM
Peak 15-Minutes: 09:00 AM - 09:15 AM

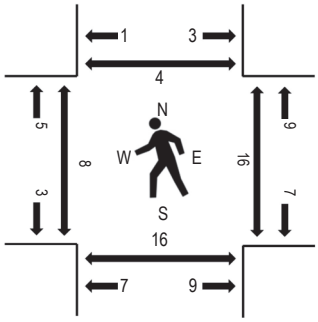
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

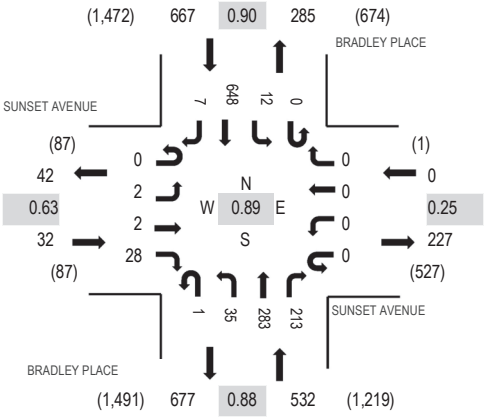
Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				BRADLEY PLACE Northbound				BRADLEY PLACE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	0	0	0	0	0	0	0	0	2	65	46	0	0	41	0	154	715	0	4	2	1
7:45 AM	0	0	0	1	0	0	0	0	0	2	68	20	0	1	41	1	134	834	2	3	4	1
8:00 AM	0	0	0	0	0	0	0	0	0	5	126	58	0	0	55	0	244	963	2	3	8	1
8:15 AM	0	0	1	5	0	0	0	0	0	3	84	36	0	3	51	0	183	1,015	2	5	6	2
8:30 AM	0	0	0	0	0	0	0	0	0	5	149	48	0	2	68	1	273	1,054	1	3	2	0
8:45 AM	0	2	2	1	0	0	0	0	0	6	142	49	0	1	60	0	263	1,035	2	4	9	3
9:00 AM	0	0	1	5	0	0	0	0	1	6	141	54	0	3	84	1	296	1,007	3	5	2	1
9:15 AM	0	1	2	4	0	0	0	0	0	2	98	39	0	0	76	0	222	964	2	4	3	0
9:30 AM	0	1	0	8	0	0	0	0	0	8	99	54	0	4	80	0	254	947	11	5	5	3
9:45 AM	0	0	1	5	0	0	0	0	0	3	96	48	0	5	77	0	235	972	4	10	12	4
10:00 AM	0	1	0	5	0	0	0	0	0	3	87	68	0	5	84	0	253	905	1	7	11	1
10:15 AM	0	1	0	3	0	0	0	0	1	3	64	46	0	2	85	0	205		3	7	4	1
10:30 AM	0	0	0	6	0	0	0	0	0	7	108	53	0	7	97	1	279		3	7	14	0
10:45 AM	0	0	4	5	0	0	0	0	0	3	41	27	0	3	85	0	168		1	6	8	3
Count Total	0	6	11	48	0	0	0	0	2	58	1,368	646	0	36	984	4	3,163		37	73	90	21
Peak Hour	0	3	5	10	0	0	0	0	1	19	530	190	0	6	288	2	1,054		8	16	16	4

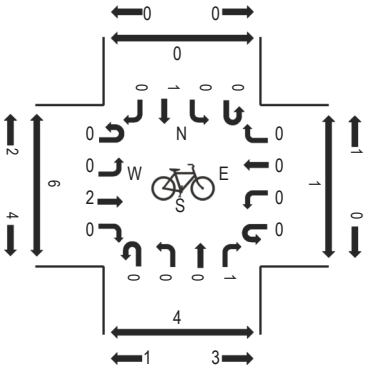
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 13 BRADLEY PLACE & SUNSET AVENUE PM
Date: Wednesday, March 13, 2024
Peak Hour: 03:30 PM - 04:30 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

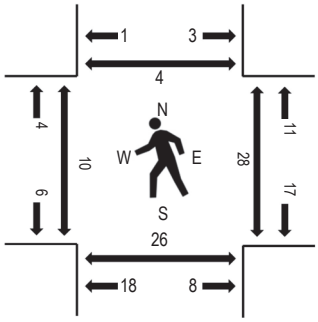
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

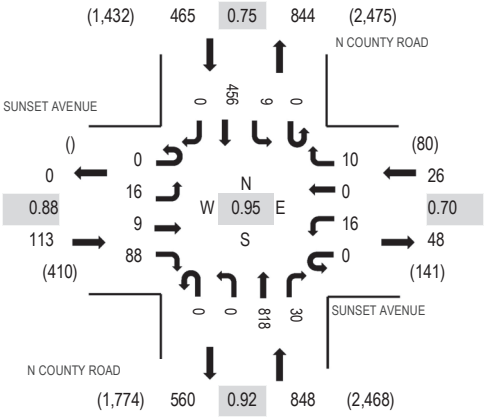
Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				BRADLEY PLACE Northbound				BRADLEY PLACE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
3:00 PM	0	1	3	8	0	0	0	0	0	8	74	55	0	4	161	2	316	1,125	2	5	8	3
3:15 PM	0	0	1	7	0	0	0	0	0	3	64	53	0	1	118	2	249	1,154	3	3	4	2
3:30 PM	0	0	0	4	0	0	0	0	0	6	75	46	0	3	172	1	307	1,231	4	4	4	4
3:45 PM	0	0	1	6	0	0	0	0	0	8	73	40	0	3	121	1	253	1,182	4	7	5	0
4:00 PM	0	1	1	10	0	0	0	0	1	12	82	57	0	4	174	3	345	1,170	0	11	10	0
4:15 PM	0	1	0	8	0	0	0	0	0	9	53	70	0	2	181	2	326	1,106	2	6	7	0
4:30 PM	0	1	1	7	0	0	0	0	0	5	62	39	0	2	140	1	258	983	1	5	8	0
4:45 PM	0	1	1	3	0	0	0	0	0	9	67	35	0	4	119	2	241		0	5	5	0
5:00 PM	0	3	0	12	0	0	0	0	0	2	64	49	0	6	142	3	281		0	8	6	0
5:15 PM	0	0	0	6	0	1	0	0	0	7	52	39	0	7	90	1	203		0	11	5	2
Count Total	0	8	8	71	0	1	0	0	1	69	666	483	0	36	1,418	18	2,779		16	65	62	11
Peak Hour	0	2	2	28	0	0	0	0	1	35	283	213	0	12	648	7	1,231		10	28	26	4

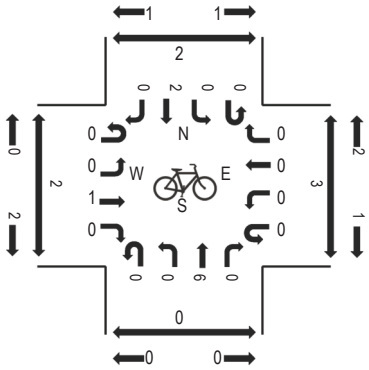
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 11 N COUNTY ROAD & SUNSET AVENUE AM
Date: Wednesday, March 13, 2024
Peak Hour: 08:30 AM - 09:30 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

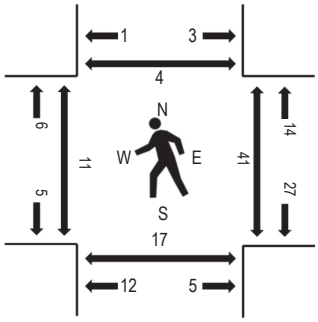
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

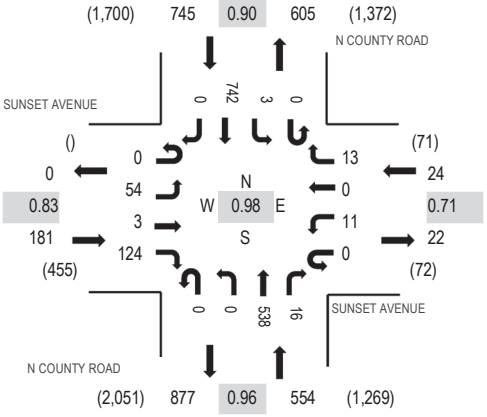
Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	2	0	11	0	2	0	1	0	0	124	5	0	0	43	0	188	1,048	1	3	2	0
7:45 AM	0	1	1	14	0	4	0	0	0	0	133	6	0	0	70	0	229	1,213	7	4	5	0
8:00 AM	0	0	0	20	0	5	0	3	0	0	225	4	0	0	79	0	336	1,367	0	10	10	2
8:15 AM	0	4	0	21	0	1	0	1	0	0	186	0	0	5	77	0	295	1,388	5	10	4	1
8:30 AM	0	3	2	16	0	8	0	4	0	0	220	9	0	2	89	0	353	1,452	3	11	5	1
8:45 AM	0	5	4	18	0	3	0	1	0	0	232	8	0	3	109	0	383	1,418	3	9	3	2
9:00 AM	0	5	2	24	0	2	0	2	0	0	193	6	0	1	122	0	357	1,363	3	11	4	0
9:15 AM	0	3	1	30	0	3	0	3	0	0	173	7	0	3	136	0	359	1,291	2	10	5	1
9:30 AM	0	8	1	27	0	1	0	2	0	0	169	8	0	0	103	0	319	1,214	8	16	6	3
9:45 AM	0	8	2	31	0	1	0	5	0	0	169	10	0	3	99	0	328	1,245	4	16	5	2
10:00 AM	0	4	2	27	0	1	0	3	0	0	156	9	0	2	81	0	285	1,243	4	10	3	2
10:15 AM	0	5	1	26	0	2	0	3	0	0	129	9	0	1	106	0	282		7	13	2	1
10:30 AM	0	10	2	30	0	3	0	6	0	0	154	9	0	3	133	0	350		10	12	6	6
10:45 AM	0	5	3	31	0	5	0	5	0	0	110	5	0	2	160	0	326		8	10	7	1
Count Total	0	63	21	326	0	41	0	39	0	0	2,373	95	0	25	1,407	0	4,390		65	145	67	22
Peak Hour	0	16	9	88	0	16	0	10	0	0	818	30	0	9	456	0	1,452		11	41	17	4

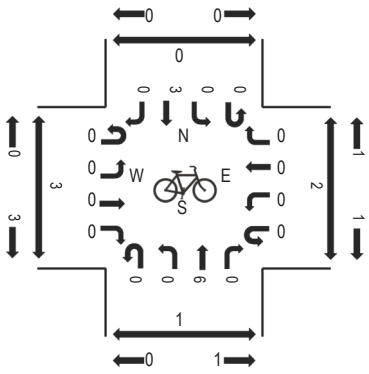
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 11 N COUNTY ROAD & SUNSET AVENUE PM
Date: Wednesday, March 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

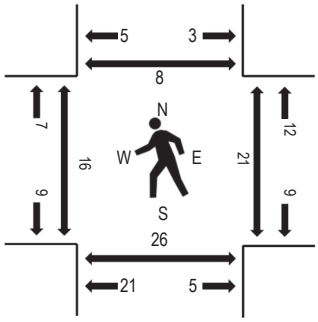
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

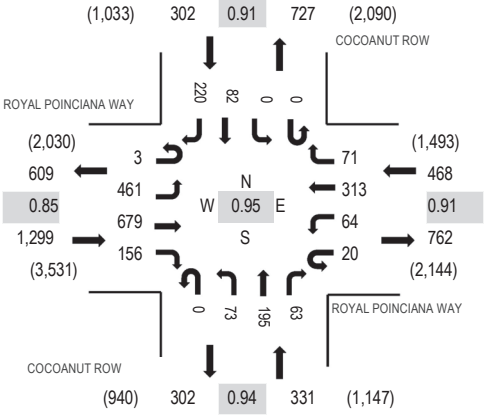
Traffic Counts - Motorized Vehicles

Interval Start Time	SUNSET AVENUE Eastbound				SUNSET AVENUE Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
3:00 PM	0	17	1	26	0	3	0	4	0	0	144	1	0	1	185	0	382	1,504	2	6	7	0
3:15 PM	0	10	2	35	0	4	0	2	0	0	129	3	0	2	188	0	375	1,498	6	3	8	4
3:30 PM	0	18	0	41	0	3	0	6	0	0	130	5	0	0	176	0	379	1,443	0	4	1	2
3:45 PM	0	9	0	22	0	1	0	1	0	0	135	7	0	0	193	0	368	1,412	8	8	10	2
4:00 PM	0	14	2	23	0	3	0	2	0	0	115	3	0	2	212	0	376	1,342	4	1	10	1
4:15 PM	0	18	4	35	0	7	0	6	0	0	106	6	0	1	137	0	320	1,304	5	1	7	0
4:30 PM	0	11	1	29	0	10	0	2	0	0	88	5	0	2	200	0	348	1,295	3	6	4	0
4:45 PM	0	6	2	40	0	3	0	2	0	0	108	5	0	2	130	0	298		6	13	8	4
5:00 PM	0	6	3	34	0	4	0	3	0	0	135	3	0	0	150	0	338		7	3	3	6
5:15 PM	0	6	3	37	0	2	0	3	0	0	136	5	0	1	118	0	311		5	6	5	0
Count Total	0	115	18	322	0	40	0	31	0	0	1,226	43	0	11	1,689	0	3,495		46	51	63	19
Peak Hour	0	54	3	124	0	11	0	13	0	0	538	16	0	3	742	0	1,504		16	21	26	8

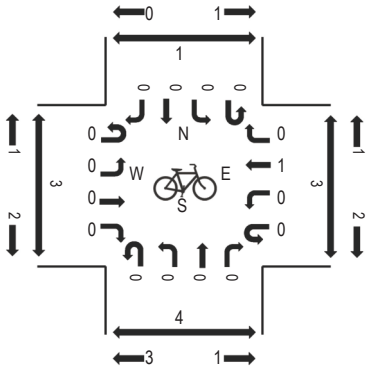
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 15 COCOANUT ROW & ROYAL POINCIANA WAY AM
Date: Wednesday, March 13, 2024
Peak Hour: 08:30 AM - 09:30 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

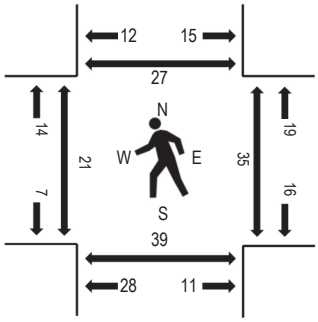
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

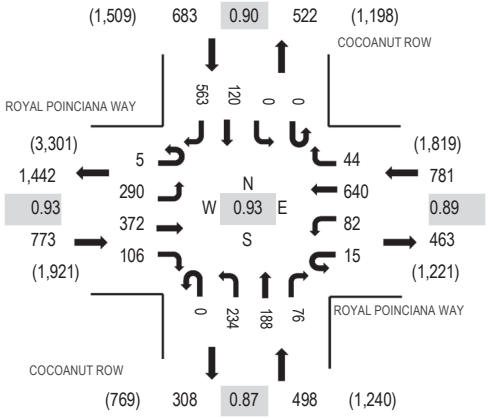
Traffic Counts - Motorized Vehicles

Interval Start Time	ROYAL POINCIANA WAY Eastbound				ROYAL POINCIANA WAY Westbound				COCOANUT ROW Northbound				COCOANUT ROW Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	81	124	25	18	4	50	5	0	19	22	19	0	0	11	32	410	1,842	1	2	3	3
7:45 AM	0	59	110	16	14	14	56	13	0	14	37	12	0	0	7	35	387	2,040	3	4	6	3
8:00 AM	0	132	207	48	15	6	57	10	0	17	42	14	0	0	13	49	610	2,286	7	15	7	4
8:15 AM	0	68	106	26	12	13	56	14	0	16	50	16	0	0	14	44	435	2,296	4	6	6	7
8:30 AM	1	129	200	35	4	16	66	16	0	11	48	13	0	0	19	50	608	2,400	5	14	11	5
8:45 AM	0	125	190	44	9	11	66	24	0	20	68	18	0	0	19	39	633	2,368	5	11	9	5
9:00 AM	0	118	167	40	3	19	84	15	0	27	35	20	0	0	29	63	620	2,302	8	7	10	10
9:15 AM	2	89	122	37	4	18	97	16	0	15	44	12	0	0	15	68	539	2,188	3	3	9	7
9:30 AM	2	94	130	39	3	20	94	22	0	28	43	25	0	0	19	57	576	2,096	8	5	10	10
9:45 AM	2	93	143	47	2	14	76	16	0	22	46	20	0	0	23	63	567	2,080	4	14	13	3
10:00 AM	3	90	94	27	4	11	86	16	0	23	46	16	0	0	30	60	506	1,819	1	10	8	4
10:15 AM	3	62	81	19	2	16	71	13	0	26	40	26	0	0	25	63	447		8	10	10	8
10:30 AM	1	107	115	30	3	11	93	16	0	25	43	16	0	0	28	72	560		9	9	14	6
10:45 AM	1	17	7	23	5	23	38	13	0	18	53	22	0	1	36	49	306		11	18	21	5
Count Total	15	1,264	1,796	456	98	196	990	209	0	281	617	249	0	1	288	744	7,204		77	128	137	80
Peak Hour	3	461	679	156	20	64	313	71	0	73	195	63	0	0	82	220	2,400		21	35	39	27

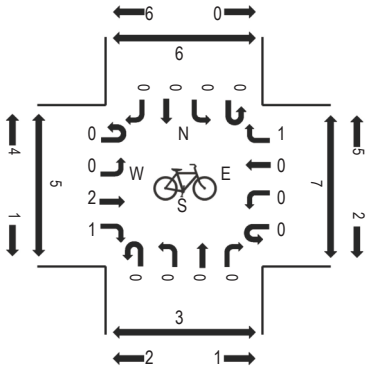
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 15 COCOANUT ROW & ROYAL POINCIANA WAY PM
Date: Wednesday, March 13, 2024
Peak Hour: 03:30 PM - 04:30 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

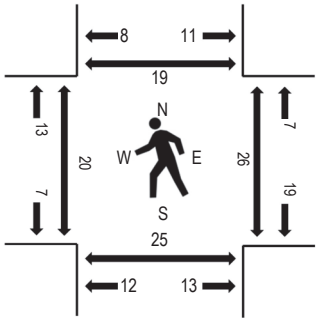
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

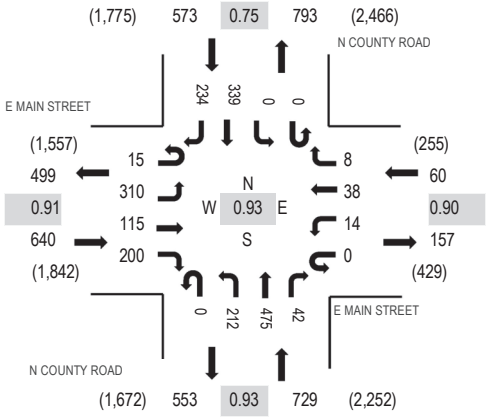
Traffic Counts - Motorized Vehicles

Interval Start Time	ROYAL POINCIANA WAY Eastbound				ROYAL POINCIANA WAY Westbound				COCOANUT ROW Northbound				COCOANUT ROW Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
3:00 PM	5	81	94	22	2	24	140	16	0	74	48	34	0	0	36	129	705	2,652	12	11	12	9
3:15 PM	3	59	108	23	6	13	118	14	0	48	37	35	0	0	28	101	593	2,674	10	15	12	5
3:30 PM	1	80	105	27	2	25	183	9	0	60	54	17	0	0	36	140	739	2,735	5	10	8	9
3:45 PM	1	55	101	27	8	19	128	11	0	59	55	19	0	0	21	111	615	2,650	1	3	9	3
4:00 PM	2	82	79	34	3	26	173	13	0	61	42	23	0	0	28	161	727	2,626	9	5	7	4
4:15 PM	1	73	87	18	2	12	156	11	0	54	37	17	0	0	35	151	654	2,556	5	8	1	3
4:30 PM	3	56	75	29	7	11	178	12	0	76	34	20	0	0	40	113	654	2,456	2	9	1	2
4:45 PM	3	67	110	22	9	13	120	10	0	54	37	19	0	0	27	100	591		7	6	11	3
5:00 PM	4	62	107	31	8	21	139	16	0	77	29	16	0	1	33	113	657		7	17	8	3
5:15 PM	3	53	94	34	1	24	119	17	0	64	28	12	0	0	30	75	554		7	1	5	2
Count Total	26	668	960	267	48	188	1,454	129	0	627	401	212	0	1	314	1,194	6,489		65	85	74	43
Peak Hour	5	290	372	106	15	82	640	44	0	234	188	76	0	0	120	563	2,735		20	26	25	19

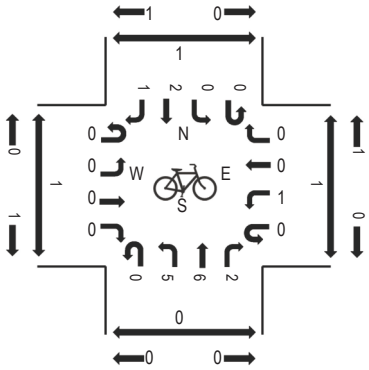
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 N COUNTY ROAD & E MAIN STREET AM
Date: Wednesday, March 13, 2024
Peak Hour: 08:45 AM - 09:45 AM
Peak 15-Minutes: 09:00 AM - 09:15 AM

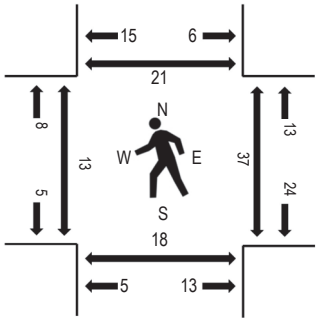
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

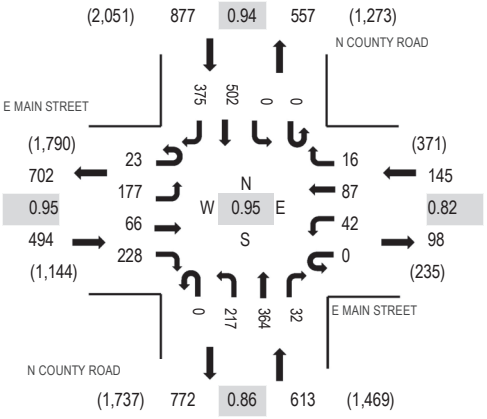
Traffic Counts - Motorized Vehicles

Interval Start Time	E MAIN STREET Eastbound				E MAIN STREET Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:30 AM	0	56	16	67	0	0	23	1	0	33	73	19	0	0	26	27	341	1,563	1	1	3	1
7:45 AM	3	58	11	27	0	2	22	1	0	38	81	15	0	0	54	32	344	1,689	1	4	5	0
8:00 AM	3	113	16	54	0	1	19	1	0	25	116	16	0	0	61	47	472	1,847	6	5	4	0
8:15 AM	3	47	16	32	0	3	15	2	0	42	133	16	0	0	54	43	406	1,915	3	8	7	1
8:30 AM	2	116	20	40	0	1	17	0	0	30	119	10	0	0	54	58	467	1,997	1	9	7	0
8:45 AM	3	99	24	53	0	3	7	3	0	43	138	9	0	0	85	35	502	2,002	3	6	5	6
9:00 AM	4	83	32	59	0	4	7	3	0	69	119	10	0	0	89	61	540	1,961	6	10	6	3
9:15 AM	3	50	22	40	0	2	9	0	0	48	124	14	0	0	95	81	488	1,813	0	6	1	3
9:30 AM	5	78	37	48	0	5	15	2	0	52	94	9	0	0	70	57	472	1,716	4	15	6	9
9:45 AM	4	70	21	47	0	2	11	2	0	50	107	7	0	0	84	56	461	1,688	3	12	3	8
10:00 AM	5	50	18	37	0	2	19	1	0	38	113	10	0	0	59	40	392	1,631	4	7	2	5
10:15 AM	3	38	12	38	0	7	11	2	0	43	96	6	0	0	75	60	391		1	9	0	10
10:30 AM	5	53	17	40	0	3	9	1	0	36	107	4	0	0	111	58	444		5	13	8	7
10:45 AM	2	9	12	21	0	1	12	4	0	27	103	10	0	0	116	87	404		4	11	4	13
Count Total	45	920	274	603	0	36	196	23	0	574	1,523	155	0	0	1,033	742	6,124		42	116	61	66
Peak Hour	15	310	115	200	0	14	38	8	0	212	475	42	0	0	339	234	2,002		13	37	18	21

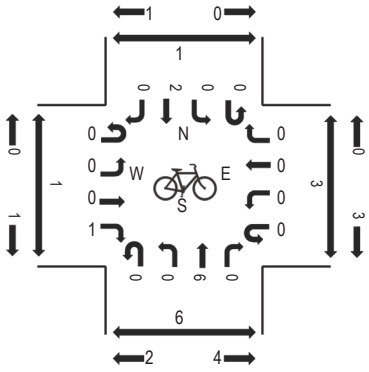
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 N COUNTY ROAD & E MAIN STREET PM
Date: Wednesday, March 13, 2024
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:00 PM - 03:15 PM

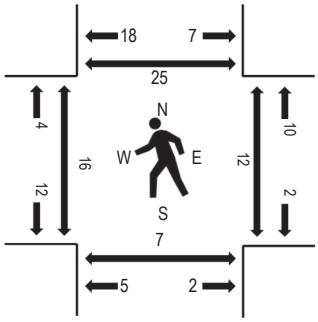
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E MAIN STREET Eastbound				E MAIN STREET Westbound				N COUNTY ROAD Northbound				N COUNTY ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
3:00 PM	7	39	19	63	0	13	27	1	0	63	109	7	0	0	135	78	561	2,129	7	3	1	10
3:15 PM	4	43	13	70	0	12	23	4	0	41	90	10	0	0	132	95	537	2,091	3	3	3	3
3:30 PM	8	54	18	48	0	13	23	6	0	53	68	7	0	0	116	101	515	2,002	3	5	2	3
3:45 PM	4	41	16	47	0	4	14	5	0	60	97	8	0	0	119	101	516	1,979	3	1	1	9
4:00 PM	2	37	16	48	0	9	32	1	0	42	81	14	0	0	121	120	523	1,922	2	1	7	3
4:15 PM	7	31	15	46	0	6	19	5	0	65	79	5	0	0	83	87	448	1,909	0	3	4	5
4:30 PM	5	32	15	37	0	7	32	1	0	44	61	8	0	0	122	128	492	1,935	4	7	4	6
4:45 PM	6	37	23	64	0	9	23	2	0	43	73	8	0	0	87	84	459		3	5	8	5
5:00 PM	6	37	15	63	0	9	32	6	0	58	94	5	0	0	102	83	510		6	2	4	5
5:15 PM	3	32	10	63	0	6	20	7	0	73	100	3	0	0	83	74	474		11	3	2	1
Count Total	52	383	160	549	0	88	245	38	0	542	852	75	0	0	1,100	951	5,035		42	33	36	50
Peak Hour	23	177	66	228	0	42	87	16	0	217	364	32	0	0	502	375	2,129		16	12	7	25

APPENDIX D

SIGNAL TIMING

Sunset & County

Phase

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clearance	0	10	0	16	0	10	0	16	0	0	0	0	0	0	0	0
Min Green	5	10	5	15	5	10	5	15	0	0	0	0	0	0	0	0
Passage	5	5	5	5	5	5	5	5	0	0	0	0	0	0	0	0
Max1	35	60	35	25	35	60	35	25	0	0	0	0	0	0	0	0
Max2	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0
Yellow	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0

TB Coor, Day Plan

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	11	15	19											
Minute																
Action	100	1	2	3	100											

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	90	90	110													
Offset Time	72	70	96													
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	3	3	3	1	1	1
Ph Opt Alt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph Time Alt	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0

Coordination, Splits

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		60		30		60		30								
Mode	NON	NON	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph						ON										

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		56		34		56		34								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time		72		38		72		38								
Mode	NON	MAX	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON														

Royal Poinciana & Cocoanut Row

Phase

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	0	10	10	10	0	10	0	10	0	0	0	0	0	0	0	0
Ped Clearance	0	16	16	16	0	16	0	16	0	0	0	0	0	0	0	0
Min Green	15	20	15	5	15	20	0	15	0	0	0	0	0	0	0	0
Passage	5	5	5	5	5	5	5	5	0	0	0	0	0	0	0	0
Max1	35	30	30	0	20	30	0	40	0	0	0	0	0	0	0	0
Max2	15	20	60	0	15	20	0	60	0	0	0	0	0	0	0	0
Yellow	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0

TB Coor, Day Plan

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	11	15	19											
Minute																
Action	100	1	2	3	100											

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	90	90	110													
Offset Time	0	0	0													
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	3	3	3	1	1	1
Ph Opt Alt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph Time Alt	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0

Coordination, Splits

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	30	30	10	20	30		40								
Mode	MAX	NON	NON	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph	ON					ON										

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	19	31	30	10	19	31		40								
Mode	NON	MAX	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON			ON											

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	20	38	40	12	21	37		52								
Mode	NON	MAX	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph		ON			ON											

Royal Poinciana & County

Phase

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk	7	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clearance	16	0	16	16	0	0	0	16	0	0	0	0	0	0	0	0
Min Green	20	5	15	10	0	0	0	0	0	0	0	0	0	0	0	0
Passage	3	3	3	3	5	5	5	5	0	0	0	0	0	0	0	0
Max1	40	20	25	20	35	60	35	25	0	0	0	0	0	0	0	0
Max2	0	0	0	0	40	40	40	40	0	0	0	0	0	0	0	0
Yellow	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0

TB Coor, Day Plan

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	11	15	19											
Minute																
Action	100	1	2	3	100											

Coordination, Pattern 1-16 [2.1]/Coordination, Alt Tables+[2.6]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time	90	90	110													
Offset Time	23	72	87													
Split Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Seq Number	1	1	1	1	1	1	1	1	1	1	3	3	3	1	1	1
Ph Opt Alt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph Time Alt	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0

Coordination, Splits

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	27	9	27	27												
Mode	NON	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph			ON													

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	27	9	27	27												
Mode	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph	ON															

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	47	9	27	27												
Mode	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord-Ph	ON															

APPENDIX E

COMMITTED TRIPS

VOLUME DEVELOPMENT SHEET

PARAMOUNT PALM BEACH

BRADLEY PLACE & SUNSET AVENUE

EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	20	530	190	6	288	2	3	5	10	0	0	0	
Peak Season Volume	20	530	190	6	288	2	3	5	10	0	0	0	
Historic Growth (2.33%) Traffic Volume Growth	1	38	14	0	21	0	0	0	1	0	0	0	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		9.0%	2.0%										Inbound
Inbound Traffic Volumes		13	3										146
Outbound Traffic Assignment					9.0%								Outbound
Outbound Traffic Volumes					11								118
WPB Subtotal	*0*	*13*	*3*	*0*	*11*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	21	581	207	6	320	2	3	5	11	0	0	0	
Project Traffic													
Inbound Traffic Assignment			10.0%	5.0%									Inbound
Inbound Traffic Volumes			3	1									28
Outbound Traffic Assignment													Outbound
Outbound Traffic Volumes													14
Project Traffic	0	0	3	1	0	0	0	0	0	0	0	0	
TOTAL TRAFFIC	21	581	210	7	320	2	3	5	11	0	0	0	

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	30	314	182	10	588	7	3	6	27	0	0	0	
Peak Season Volume	30	314	182	10	588	7	3	6	27	0	0	0	
Historic Growth (2.33%) Traffic Volume Growth	2	22	13	1	42	1	0	0	2	0	0	0	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		9.0%	2.0%										Inbound
Inbound Traffic Volumes													0
Outbound Traffic Assignment					9.0%								Outbound
Outbound Traffic Volumes													0
WPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	32	336	195	11	630	8	3	6	29	0	0	0	
Inbound Traffic Assignment			10.0%	5.0%									Inbound
Inbound Traffic Volumes			5	2									47
Outbound Traffic Assignment													Outbound
Outbound Traffic Volumes													23
Project Traffic	0	0	5	2	0	0	0	0	0	0	0	0	
TOTAL TRAFFIC	32	336	200	13	630	8	3	6	29	0	0	0	

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	36	283	213	12	648	7	2	2	28	0	0	0	
Peak Season Volume	36	283	213	12	648	7	2	2	28	0	0	0	
Historic Growth (2.33%) Traffic Volume Growth	3	20	15	1	46	1	0	0	2	0	0	0	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		9.0%	2.0%										Inbound
Inbound Traffic Volumes		14	3										155
Outbound Traffic Assignment					9.0%								Outbound
Outbound Traffic Volumes					17								191
WPB Subtotal	*0*	*14*	*3*	*0*	*17*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	39	317	231	13	711	8	2	2	30	0	0	0	
Project Traffic													
Inbound Traffic Assignment			10.0%	5.0%									Inbound
Inbound Traffic Volumes			8	4									77
Outbound Traffic Assignment													Outbound
Outbound Traffic Volumes													38
Project Traffic	0	0	8	4	0	0	0	0	0	0	0	0	
TOTAL TRAFFIC	39	317	239	17	711	8	2	2	30	0	0	0	

VOLUME DEVELOPMENT SHEET

PARAMOUNT PALM BEACH

SUNSET AVE & COUNTY ROAD

EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	0	818	30	9	456	0	16	9	88	16	0	10	
Peak Season Volume	0	818	30	9	456	0	16	9	88	16	0	10	
Historic Growth (2.33%) Traffic Volume Growth	0	59	2	1	33	0	1	1	6	1	0	1	
TOPB Committed Development													
Royal Poinciana Playhouse		1			1								
Breakers													
Palm House Hotel													
165 Bradley Place		1			1								
TOPB Subtotal	*0*	*2*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		11.0%							5.0%				Inbound
Inbound Traffic Volumes		16							6				146
Outbound Traffic Assignment					10.0%								Outbound
Outbound Traffic Volumes					12								118
WPB Subtotal	*0*	*16*	*0*	*0*	*12*	*0*	*0*	*0*	*6*	*0*	*0*	*0*	
Background Traffic Volumes	0	893	32	10	501	0	17	10	100	17	0	11	
Project Traffic													
Inbound Traffic Assignment			55.0%	30.0%				15.0%					Inbound
Inbound Traffic Volumes			15	8				4					28
Outbound Traffic Assignment					45.0%								Outbound
Outbound Traffic Volumes					6								14
Project Traffic	0	0	15	8	6	0	0	4	0	0	0	0	
TOTAL TRAFFIC	0	893	47	18	507	0	17	14	100	17	0	11	

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	0	688	35	8	702	0	27	8	97	15	0	21	
Peak Season Volume	0	688	35	8	702	0	27	8	97	15	0	21	
Historic Growth (2.33%) Traffic Volume Growth	0	49	3	1	50	0	2	1	7	1	0	2	
TOPB Committed Development													
Royal Poinciana Playhouse		1			1								
Breakers													
Palm House Hotel													
165 Bradley Place		1			1								
TOPB Subtotal	*0*	*2*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		11.0%							5.0%				Inbound
Inbound Traffic Volumes													0
Outbound Traffic Assignment					10.0%								Outbound
Outbound Traffic Volumes													0
WPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	0	739	38	9	754	0	29	9	104	16	0	23	
Inbound Traffic Assignment			55.0%	30.0%				15.0%					Inbound
Inbound Traffic Volumes			26	14				7					47
Outbound Traffic Assignment					45.0%								Outbound
Outbound Traffic Volumes					10								23
Project Traffic	0	0	26	14	10	0	0	7	0	0	0	0	
TOTAL TRAFFIC	0	739	64	23	764	0	29	16	104	16	0	23	

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	0	538	16	3	742	0	54	3	124	11	0	13	
Peak Season Volume	0	538	16	3	742	0	54	3	124	11	0	13	
Historic Growth (2.33%) Traffic Volume Growth	0	39	1	0	53	0	4	0	9	1	0	1	
TOPB Committed Development													
Royal Poinciana Playhouse		5			12								
Breakers													
Palm House Hotel													
165 Bradley Place		1			1								
TOPB Subtotal	*0*	*6*	*0*	*0*	*13*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment		11.0%							5.0%				Inbound
Inbound Traffic Volumes		17							10				155
Outbound Traffic Assignment					10.0%								Outbound
Outbound Traffic Volumes					19								191
WPB Subtotal	*0*	*17*	*0*	*0*	*19*	*0*	*0*	*0*	*10*	*0*	*0*	*0*	
Background Traffic Volumes	0	600	17	3	827	0	58	3	143	12	0	14	
Project Traffic													
Inbound Traffic Assignment			55.0%	30.0%				15.0%					Inbound
Inbound Traffic Volumes			42	23				12					77
Outbound Traffic Assignment					45.0%								Outbound
Outbound Traffic Volumes					17								38
Project Traffic	0	0	42	23	17	0	0	12	0	0	0	0	
TOTAL TRAFFIC	0	600	59	26	844	0	58	15	143	12	0	14	

VOLUME DEVELOPMENT SHEET

PARAMOUNT PALM BEACH

BRADLEY PLACE & ROYAL POINCIANA WAY

EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	73	195	63	0	82	220	464	679	156	84	313	71	
Peak Season Volume	73	195	63	0	82	220	464	679	156	84	313	71	
Historic Growth (2.33%) Traffic Volume Growth	5	14	5	0	6	16	33	49	11	6	22	5	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%	55.0%	30.0%				Inbound
Inbound Traffic Volumes							22	80	44				146
Outbound Traffic Assignment	30.0%					15.0%					55.0%		Outbound
Outbound Traffic Volumes	35					18					65		118
WPB Subtotal	35	*0*	*0*	*0*	*0*	*18*	*22*	*80*	*44*	*0*	65	*0*	
Background Traffic Volumes	113	209	68	0	88	254	519	808	211	90	400	76	
Project Traffic													
Inbound Traffic Assignment		5.0%					5.0%	25.0%					Inbound
Inbound Traffic Volumes		1					1	7					28
Outbound Traffic Assignment					5.0%	5.0%					25.0%		Outbound
Outbound Traffic Volumes					1	1					4		14
Project Traffic	0	1	0	0	1	1	1	7	0	0	4	0	
TOTAL TRAFFIC	113	210	68	0	89	255	520	815	211	90	404	76	

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	216	156	87	0	140	481	315	418	131	96	541	73	
Peak Season Volume	216	156	87	0	140	481	315	418	131	96	541	73	
Historic Growth (2.33%) Traffic Volume Growth	15	11	6	0	10	34	23	30	9	7	39	5	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%	55.0%	30.0%				Inbound
Inbound Traffic Volumes													0
Outbound Traffic Assignment	30.0%					15.0%					55.0%		Outbound
Outbound Traffic Volumes													0
WPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	231	167	93	0	150	515	338	448	140	103	580	78	
Inbound Traffic Assignment		5.0%					5.0%	25.0%					Inbound
Inbound Traffic Volumes		2					2	12					47
Outbound Traffic Assignment					5.0%	5.0%					25.0%		Outbound
Outbound Traffic Volumes					1	1					6		23
Project Traffic	0	2	0	0	1	1	2	12	0	0	6	0	
TOTAL TRAFFIC	231	169	93	0	151	516	340	460	140	103	586	78	

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	234	188	76	0	120	563	295	372	106	97	640	44	
Peak Season Volume	234	188	76	0	120	563	295	372	106	97	640	44	
Historic Growth (2.33%) Traffic Volume Growth	17	13	5	0	9	40	21	27	8	7	46	3	
TOPB Committed Development													
Royal Poinciana Playhouse													
Breakers													
Palm House Hotel													
165 Bradley Place													
TOPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%	55.0%	30.0%				Inbound
Inbound Traffic Volumes							23	85	47				155
Outbound Traffic Assignment	30.0%					15.0%					55.0%		Outbound
Outbound Traffic Volumes	57					29					105		191
WPB Subtotal	57	*0*	*0*	*0*	*0*	*29*	*23*	85	*47*	*0*	*105*	*0*	
Background Traffic Volumes	308	201	81	0	129	632	339	484	161	104	791	47	
Project Traffic													
Inbound Traffic Assignment		5.0%					5.0%	25.0%					Inbound
Inbound Traffic Volumes		4					4	19					77
Outbound Traffic Assignment					5.0%	5.0%					25.0%		Outbound
Outbound Traffic Volumes					2	2					10		38
Project Traffic	0	4	0	0	2	2	4	19	0	0	10	0	
TOTAL TRAFFIC	308	205	81	0	131	634	343	503	161	104	801	47	

VOLUME DEVELOPMENT SHEET

PARAMOUNT PALM BEACH

ROYAL POINCIANA WAY & COUNTY ROAD

EXISTING GEOMETRY

Growth Rate = 2.33%
Peak Season = 1
Buildout Year = 2027
Years = 3

AM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	212	475	42	0	339	234	325	115	200	14	38	8	
Peak Season Volume	212	475	42	0	339	234	325	115	200	14	38	8	
Historic Growth (2.33%) Traffic Volume Growth	15	34	3	0	24	17	23	8	14	1	3	1	
TOPB Committed Development													
Royal Poinciana Playhouse	1					1	1		1				
Breakers	20	1		5	2			19	11		35	9	
Palm House Hotel													
165 Bradley Place	1	1			1				1				
TOPB Subtotal	*22*	*2*	*0*	*5*	*3*	*1*	*1*	*19*	*13*	*0*	*35*	*9*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%		40.0%				Inbound
Inbound Traffic Volumes							22		58				146
Outbound Traffic Assignment	40.0%					15.0%							Outbound
Outbound Traffic Volumes	47					18							118
WPB Subtotal	*47*	*0*	*0*	*0*	*0*	*18*	*22*	*0*	*58*	*0*	*0*	*0*	
Background Traffic Volumes	296	509	45	0	363	269	370	123	272	15	41	9	
Project Traffic													
Inbound Traffic Assignment		30.0%					25.0%						Inbound
Inbound Traffic Volumes		8					7						28
Outbound Traffic Assignment					30.0%	25.0%							Outbound
Outbound Traffic Volumes					4	4							14
Project Traffic	0	8	0	0	4	4	7	0	0	0	0	0	
TOTAL TRAFFIC	296	517	45	0	367	273	377	123	272	15	41	9	

Mid-Day Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	259	571	25	0	568	256	159	45	319	25	57	2	
Peak Season Volume	259	571	25	0	568	256	159	45	319	25	57	2	
Historic Growth (2.33%) Traffic Volume Growth	19	41	2	0	41	18	11	3	23	2	4	0	
TOPB Committed Development													
Royal Poinciana Playhouse	1					1	1		1				
Breakers	8	1		4	1			14	8		15	4	
Palm House Hotel													
165 Bradley Place	1	1			1				1				
TOPB Subtotal	*10*	*2*	*0*	*4*	*2*	*1*	*1*	*14*	*10*	*0*	*15*	*4*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%		40.0%				Inbound
Inbound Traffic Volumes													0
Outbound Traffic Assignment	40.0%					15.0%							Outbound
Outbound Traffic Volumes													0
WPB Subtotal	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Background Traffic Volumes	288	614	27	4	611	275	171	62	352	27	76	6	
Inbound Traffic Assignment		30.0%					25.0%						Inbound
Inbound Traffic Volumes		14					12						47
Outbound Traffic Assignment					30.0%	25.0%							Outbound
Outbound Traffic Volumes					7	6							23
Project Traffic	0	14	0	0	7	6	12	0	0	0	0	0	
TOTAL TRAFFIC	288	628	27	4	618	281	183	62	352	27	76	6	

PM Peak Hour

	Northbound			Southbound			Eastbound			Westbound			
	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	LT	Thru	RT	
'Existing Volume on 3/13/2024	217	364	32	0	502	375	200	66	228	42	87	16	
Peak Season Volume	217	364	32	0	502	375	200	66	228	42	87	16	
Historic Growth (2.33%) Traffic Volume Growth	16	26	2	0	36	27	14	5	16	3	6	1	
TOPB Committed Development													
Royal Poinciana Playhouse	12					12	5		5				
Breakers	16	1		7	2			28	16		16	4	
Palm House Hotel													
165 Bradley Place	1	1			1				1				
TOPB Subtotal	*29*	*2*	*0*	*7*	*3*	*12*	*5*	*28*	*22*	*0*	*16*	*4*	
WPB Committed Traffic													
Inbound Traffic Assignment							15.0%		40.0%				Inbound
Inbound Traffic Volumes							23		62				155
Outbound Traffic Assignment	40.0%					15.0%							Outbound
Outbound Traffic Volumes	76					29							191
WPB Subtotal	*76*	*0*	*0*	*0*	*0*	*29*	*23*	*0*	*62*	*0*	*0*	*0*	
Background Traffic Volumes	338	392	34	7	541	443	242	99	328	45	109	21	
Project Traffic													
Inbound Traffic Assignment		30.0%					25.0%						Inbound
Inbound Traffic Volumes		23					19						77
Outbound Traffic Assignment					30.0%	25.0%							Outbound
Outbound Traffic Volumes					11	10							38
Project Traffic	0	23	0	0	11	10	19	0	0	0	0	0	
TOTAL TRAFFIC	338	415	34	7	552	453	261	99	328	45	109	21	

SIMMONS & WHITE
UNCOMPROMISED CLIENT SERVICE

2581 Metrocentre Blvd. W., #3
West Palm Beach, FL 33407
Ph: (561) 478-7848 Fax: (561) 478-3738
Website: simmonsandwhite.com

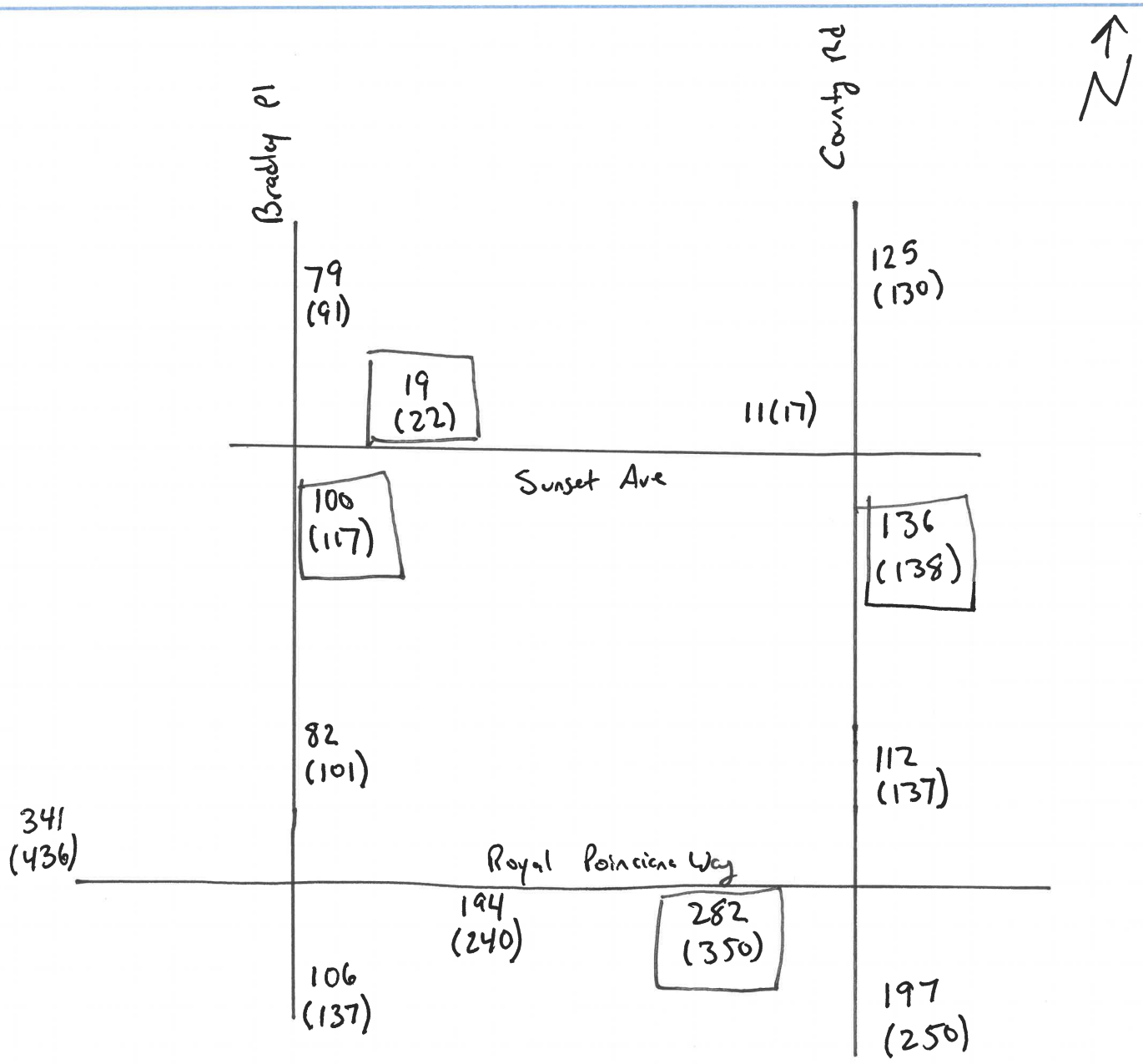
JOB NAME: _____

JOB NO: _____

BY: _____

DATE: _____

SHEET NO: _____ OF: _____



Background Trips per Intersection Analysis. For segments with two volumes, the highest volume (boxed) was used.

APPENDIX F

TPS APPROVAL LETTER

Department of Engineering and Public Works
P.O. Box 21229
West Palm Beach, FL 33416-1229
(561) 684-4000
FAX: (561) 684-4050
www.pbcgov.com

September 17, 2024

Bryan Kelley, P.E.
Simmons & White, Inc.,
2581 Metrocentre Blvd West, Ste 3
West Palm Beach, FL 33407

RE: Palm Beach Synagogue
Project #: 240819 (previously 230718)
Traffic Performance Standards (TPS) Review

Dear Mr. Kelley:

The Palm Beach County Traffic Division has reviewed the above referenced project Traffic Impact Statement, updated September 16, 2024, pursuant to the Traffic Performance Standards in Article 12 of the Palm Beach County (PBC) Unified Land Development Code (ULDC). The project is summarized as follows:

Municipality:	Palm Beach
Location:	NWC of Sunset Avenue and N County Road
PCN:	50-43-43-22-31-000-1730/-1751
Access:	Access driveway connection onto Sunset Avenue (As used in the study and is NOT necessarily an approval by the County through this TPS letter)
Existing Uses:	Gen. Office = 2,575 SF Church/Synagogue = 11,007 SF Fine Dining Restaurant = 5,979 SF (previously existed, but currently not in operation)
Proposed Uses:	Redevelop the site with: Church/Synagogue = 31,573 SF (with ancillary 4,220 SF Youth and Student Learning space, and ancillary 4,388 SF Administrative Office)
New Daily Trips:	-133
New Peak Hour Trips:	3 (3/0) AM; -17 (-12/-5) PM
Build-out:	December 31, 2028

Based on the review, the Traffic Division has determined that the proposed development generates less than 21 peak hour trips and, therefore, a detailed traffic study is not required. The project is expected to have insignificant traffic impact.

Please note the receipt of a TPS approval letter does not constitute the review and issuance of a Palm Beach County Right-of-Way (R/W) Construction Permit nor does it eliminate any requirements that may be deemed as site related. For work within Palm Beach County R/W, a detailed review of the project will be provided upon submittal for a R/W permit application. The project is required to comply with all Palm Beach County standards and may include R/W dedication.

No building permits are to be issued by the Town after the build-out date specified above. The County traffic concurrency approval is subject to the Project Aggregation Rules set forth in the Traffic Performance Standards Ordinance.

The approval letter shall be valid no longer than one year from date of issuance, unless an application for a Site Specific Development Order has been approved, an application for a Site Specific Development Order has been submitted, or the approval letter has been superseded by another approval letter for the same property.

If you have any questions regarding this determination, please contact me at 561-684-4030 or email QBari@pbc.gov

Sincerely,

Quazi Bari, P.E., PTOE
Manager, Growth Management
Traffic Division

QB:jb
ec: addressee
James Murphy, Assistant Director, Town of Palm Beach
Alberto Lopez, Technical Assistant III, Traffic Division

File: General - TPS - Mun - Traffic Study Review
F:\TRAFFIC\HA\MUNICIPALITIES\APPROVALS\2024\240819 - PALM BEACH SYNAGOGUE.DOCX;

APPENDIX G

ROADWAY CONCURRENCY ANALYSIS

TABLE 15
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
AM PEAK HOUR

2028 BUILD OUT
DIRECTLY ACCESSED LINKS
TOTAL AM PEAK HOUR PROJECT TRIPS (ENTERING) = 4
TOTAL AM PEAK HOUR PROJECT TRIPS (EXITING) = 1

ROADWAY	FROM	TO	PROJECT DISTRIBUTION	IN/OUT	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
SUNSET AVENUE	BRADLEY PLACE	SITE	100%	IN	4	1 (ONE-WAY)	II	750	0.53%	NO
SUNSET AVENUE	SITE	COUNTY ROAD	100%	OUT	1			750	0.13%	NO
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	40%	OUT	0	4L	II	1223	0.03%	NO
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY*	60%	OUT	1	4L	II	1223	0.05%	NO
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	20% IN + 30% OUT		1	4D	II	1630	0.07%	NO
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	40%	IN	2	2	II	750	0.21%	NO
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	60%	IN	2	2	II	750	0.32%	NO

Notes:
* Reduced by 25% due to no left turn lanes
2020 FDOT Q/LOS Tables utilized for LOS D thresholds

TABLE 16
TEST 1 - PROJECT SIGNIFICANCE CALCULATION
PM PEAK HOUR

2028 BUILD OUT
DIRECTLY ACCESSED LINKS
TOTAL PM PEAK HOUR PROJECT TRIPS (ENTERING) = 5
TOTAL PM PEAK HOUR PROJECT TRIPS (EXITING) = 4

ROADWAY	FROM	TO	PROJECT DISTRIBUTION	IN/OUT	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	EXISTING LANES	CLASS	LOS D STANDARD	TOTAL PROJECT IMPACT	PROJECT SIGNIFICANT
SUNSET AVENUE	BRADLEY PLACE	SITE	100%	IN	5	1 (ONE-WAY)	II	750	0.67%	NO
SUNSET AVENUE	SITE	COUNTY ROAD	100%	OUT	4			750	0.53%	NO
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	40%	OUT	2	4L	II	1223	0.13%	NO
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY*	60%	OUT	2	4L	II	1223	0.20%	NO
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	20% IN + 30% OUT		2	4D	II	1630	0.13%	NO
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	40%	IN	2	2	II	750	0.27%	NO
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	60%	IN	3	2	II	750	0.40%	NO

Notes:
* Reduced by 25% due to no left turn lanes
2020 FDOT Q/LOS Tables utilized for LOS D thresholds

TABLE 17
TOWN ROADWAY SEGMENT ANALYSIS
AM PEAK HOUR

2028 BUILD OUT

TOTAL AM PEAK HOUR PROJECT TRIPS (ENT4
TOTAL AM PEAK HOUR PROJECT TRIPS (EXI1

BASED ON NET TRIPS ASSUMING NO RESTAURANT USE

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C PEAK HOUR CAPACITY	LOS C V/C RATIO	LOS D PEAK HOUR CAPACITY	LOS D V/C RATIO	LOS E PEAK HOUR CAPACITY	LOS E V/C RATIO	EXISTING PEAK HOUR LOS	2028 BCKGRD TRAFFIC	2028 TOTAL BCKGRD TRAFFIC	2028 BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	2027 TOTAL TRAFFIC	2027 TOTAL LOS
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	201	II	333	0.60	675	0.30	720	0.28	C	22	223	C	100%	IN	4	227	C
SUNSET AVENUE	SITE	COUNTY ROAD	1L COL - One Way	113	II	333	0.34	675	0.17	720	0.16	C	17	130	C	100%	OUT	1	131	C
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	130	1724	D	40%	OUT	0	1724	D
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	138	1732	D	60%	OUT	1	1733	D
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1307	II	1310	1.00	2920	0.45	3040	0.43	C	350	1657	D	20% IN + 30% OUT		1	1658	D
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	91	1340	F	40%	IN	2	1342	F
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	117	1366	F	60%	IN	2	1368	F

Notes:

2020 FDOT Q/LOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compelted by Kimley Horn
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 18
TOWN ROADWAY SEGMENT ANALYSIS
PM PEAK HOUR

2028 BUILD OUT

TOTAL PM PEAK HOUR PROJECT TRIPS (ENT 5
TOTAL PM PEAK HOUR PROJECT TRIPS (EXIT 4

BASED ON NET TRIPS ASSUMING NO RESTAURANT USE

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C PEAK HOUR CAPACITY	LOS C V/C RATIO	LOS D PEAK HOUR CAPACITY	LOS D V/C RATIO	LOS E PEAK HOUR CAPACITY	LOS E V/C RATIO	EXISTING PEAK HOUR LOS	2028 BCKGRD TRAFFIC	2028 TOTAL BCKGRD TRAFFIC	2028 BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	2027 TOTAL TRAFFIC	2027 TOTAL LOS
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	227	II	333	0.68	675	0.34	720	0.32	C	19	246	C	100%	IN	5	251	C
SUNSET AVENUE	SITE	COUNTY ROAD	1L COL - One Way	181	II	333	0.54	675	0.27	720	0.25	C	11	192	C	100%	OUT	4	196	C
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	4L ART - Undivided	1486	II	983	1.51	2190	0.68	2280	0.65	D	125	1611	D	40%	OUT	2	1613	D
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY*	4L ART - Undivided	1486	II	983	1.51	2190	0.68	2280	0.65	D	136	1622	D	60%	OUT	2	1624	D
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1325	II	1310	1.01	2920	0.45	3040	0.44	D	282	1607	D	20% IN + 30% OUT		2	1609	D
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1260	II	594	2.12	1197	1.05	1269	0.99	E	79	1339	F	40%	IN	2	1341	F
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1260	II	594	2.12	1197	1.05	1269	0.99	E	100	1360	F	60%	IN	3	1363	F

Notes:

2020 FDOT Q/LOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compelted by Kimley Horn
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 19
TOWN ROADWAY SEGMENT ANALYSIS
AM PEAK HOUR

2028 BUILD OUT

TOTAL AM PEAK HOUR PROJECT TRIPS (ENT3
TOTAL AM PEAK HOUR PROJECT TRIPS (EXI'0

BASED ON NET TRIPS ASSUMING VESTED RESTAURANT

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C PEAK HOUR CAPACITY	LOS C V/C RATIO	LOS D PEAK HOUR CAPACITY	LOS D V/C RATIO	LOS E PEAK HOUR CAPACITY	LOS E V/C RATIO	EXISTING PEAK HOUR LOS	BCKGRD TRAFFIC	2028 TOTAL BCKGRD TRAFFIC	2028 BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	AM PEAK HOUR DIRECTIONAL PROJECT TRIPS	2027 TOTAL TRAFFIC	2027 TOTAL LOS
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	201	II	333	0.60	675	0.30	720	0.28	C	22	223	C	100%	IN	3	226	C
SUNSET AVENUE	SITE	COUNTY ROAD	1L COL - One Way	113	II	333	0.34	675	0.17	720	0.16	C	17	130	C	100%	OUT	0	130	C
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	130	1724	D	40%	OUT	0	1724	D
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY	4L ART - Undivided	1594	II	983	1.62	2190	0.73	2280	0.70	D	138	1732	D	60%	OUT	0	1732	D
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1307	II	1310	1.00	2920	0.45	3040	0.43	C	350	1657	D	20% IN + 30% OUT		1	1658	D
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	91	1340	F	40%	IN	1	1341	F
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1249	II	594	2.10	1197	1.04	1269	0.98	E	117	1366	F	60%	IN	2	1368	F

Notes:

2020 FDOT Q/LOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compelted by Kimley Horn
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 20
TOWN ROADWAY SEGMENT ANALYSIS
PM PEAK HOUR

2028 BUILD OUT

TOTAL PM PEAK HOUR PROJECT TRIPS (ENT-12
TOTAL PM PEAK HOUR PROJECT TRIPS (EXI'-5

BASED ON NET TRIPS ASSUMING VESTED RESTAURANT

ROADWAY	FROM	TO	FACILITY TYPE	2024 PEAK HOUR VOLUME	ROAD CLASS	LOS C PEAK HOUR CAPACITY	LOS C V/C RATIO	LOS D PEAK HOUR CAPACITY	LOS D V/C RATIO	LOS E PEAK HOUR CAPACITY	LOS E V/C RATIO	EXISTING PEAK HOUR LOS	2028 BCKGRD TRAFFIC	2028 TOTAL BCKGRD TRAFFIC	2028 BCKGRD LOS	PROJECT DISTRIBUTION	IN/OUT	PM PEAK HOUR DIRECTIONAL PROJECT TRIPS	2027 TOTAL TRAFFIC	2027 TOTAL LOS
SUNSET AVENUE	BRADLEY PLACE	SITE	1L COL - One Way	227	II	333	0.68	675	0.34	720	0.32	C	19	246	C	100%	IN	-12	234	C
SUNSET AVENUE	SITE	COUNTY ROAD	1L COL - One Way	181	II	333	0.54	675	0.27	720	0.25	C	11	192	C	100%	OUT	-5	187	C
COUNTY ROAD	SUNRISE AVENUE	SUNSET AVENUE*	4L ART - Undivided	1486	II	983	1.51	2190	0.68	2280	0.65	D	125	1611	D	40%	OUT	-2	1609	D
COUNTY ROAD	SUNSET AVENUE	ROYAL POINCIANA WAY*	4L ART - Undivided	1486	II	983	1.51	2190	0.68	2280	0.65	D	136	1622	D	60%	OUT	-3	1619	D
ROYAL POINCIANA WAY	BRADLEY PLACE	COUNTY ROAD	4L ART - Divided	1325	II	1310	1.01	2920	0.45	3040	0.44	D	282	1607	D	20% IN + 30% OUT		-4	1603	D
BRADLEY PLACE	SUNRISE AVENUE	SUNSET AVENUE	2L COL - Undivided	1260	II	594	2.12	1197	1.05	1269	0.99	E	79	1339	F	40%	IN	-5	1334	F
BRADLEY PLACE	SUNSET AVENUE	ROYAL POINCIANA WAY	2L COL - Undivided	1260	II	594	2.12	1197	1.05	1269	0.99	E	100	1360	F	60%	IN	-7	1353	F

Notes:

2020 FDOT Q/LOS Tables utilized for LOS D thresholds
Existing traffic volumes from 2024 Annual Traffic Count Update Report compelted by Kimley Horn
Background traffic derived from intersection development sheets
Sunset Avenue existing volumes derived from intersection counts

TABLE 7 Generalized **Peak Hour Directional** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
2	2,230	3,100	3,740	4,080
3	3,280	4,570	5,620	6,130
4	4,310	6,030	7,490	8,170
5	5,390	7,430	9,370	10,220
6	6,380	8,990	11,510	12,760

Urbanized

Lanes	B	C	D	E
2	2,270	3,100	3,890	4,230
3	3,410	4,650	5,780	6,340
4	4,550	6,200	7,680	8,460
5	5,690	7,760	9,520	10,570

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	580	890	1,200	1,610
2	Divided	1,800	2,600	3,280	3,730
3	Divided	2,700	3,900	4,920	5,600

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1]Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

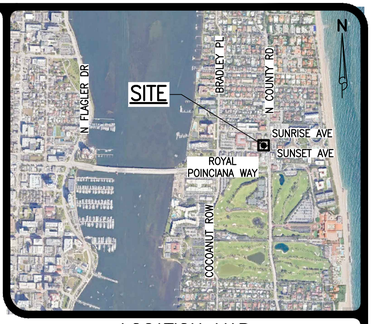
* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

APPENDIX H

SUNDAY SCHOOL OPERATIONAL PLAN & EVENT VALET CIRCULATION PLAN



LOCATION MAP
NOT TO SCALE

INGRESS QUEUE = 9 VEHICLES (201 FEET)

STAFF MEMBERS TO PARK IN COVERED PARKING

CONES TO DESIGNATE TRAFFIC CIRCULATION. SIGNAGE ALSO TO BE USED TO INFORM DRIVERS TO USE LEFT LANE.

PROPOSED BUILDING

N. COUNTY ROAD

SUNSET AVENUE

N

10 5 0 10 20
SCALE IN FEET
1"=10'

LEGEND

- INGRESS QUEUE
- EGRESS PATH
- 1 TRAINED STAFF MEMBER FOR FLOW CONTROL. SEE BELOW FOR DETAILED DESCRIPTION OF EACH STAFF MEMBERS RESPONSIBILITIES AND DUTIES.

OPERATIONAL MANAGEMENT STAFF DUTIES:

1 STAFF MEMBER TO ASSIST W/ VEHICLE CIRCULATION.

2 STAFF MEMBER TO HELP LOADING/UNLOADING OF STUDENTS.

REVISIONS

SIMMONS & WHITE
2581 Metrocentre Blvd West, Ste 3 | West Palm Beach, FL 33407
Authorization # 3452 | 561.478.7848

DESIGN	DRAWN	CHECKED	APPROVED	DATE
B.K.	C.O.			

PALM BEACH SYNAGOGUE
SECTION 22, TOWNSHIP 43S., RANGE 43E.
TOWN OF PALM BEACH, FLORIDA
SUNDAY SCHOOL TRAFFIC OPERATIONAL MANAGEMENT PLAN

JOB NO.	DRAWING NO.	SHEET	OF
24-073	24073Z01	1	1

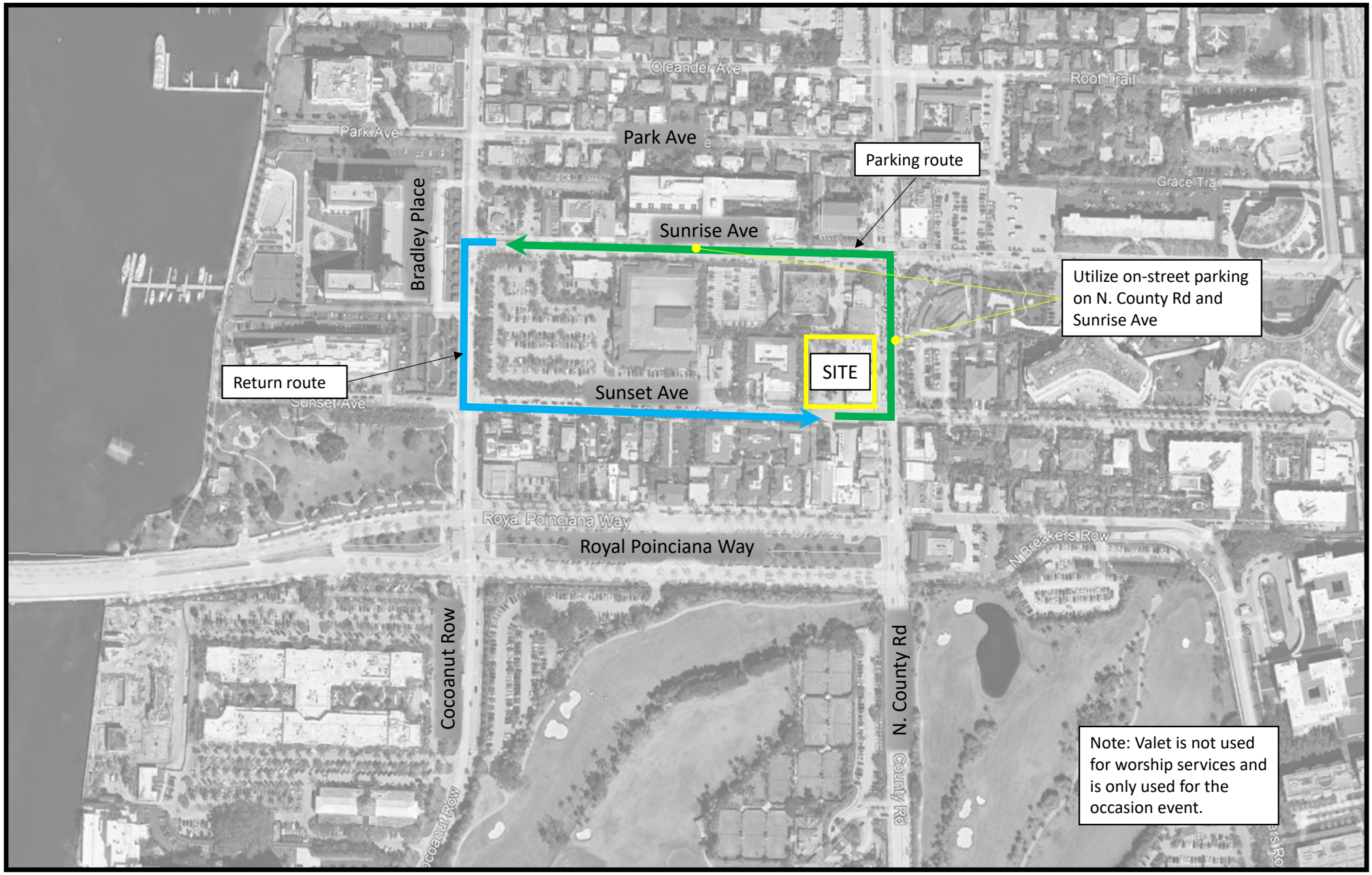


Figure 3 – Valet Circulation Route
Palm Beach Synagogue
Project # 24-073

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

APPENDIX I

QUEUE CALCULATIONS

Queuing Calculations - SUNDAY SCHOOL

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$$

Q =	60	Processing rate (processes per hour)
q =	63	Demand rate (vehicles per hour)
N =	2	Service positions (attendants)
ρ =	0.525	Utilization factor (q/(NQ))
Q_m =	0.363	Table Value
M =	2.07	

	N = 1	2	3	4	6	8	10
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1	0.1000	0.1820	0.0037	0.0080	0.0000	0.0000	0.0000
0.2	0.2000	0.0666	0.0247	0.0096	0.0015	0.0002	0.0000
0.3	0.3000	0.1385	0.0700	0.0370	0.0111	0.0036	0.0011
0.4	0.4000	0.2286	0.1411	0.0907	0.0400	0.0185	0.0088
0.5	0.5000	0.3333	0.2368	0.1739	0.0991	0.0591	0.0360
0.6	0.6000	0.4501	0.3548	0.2870	0.1965	0.1395	0.1013
0.7	0.7000	0.5766	0.4923	0.4286	0.3359	0.2706	0.2218
0.8	0.8000	0.7111	0.6472	0.5964	0.5178	0.4576	0.4093
0.9	0.9000	0.8526	0.8172	0.7878	0.7401	0.7014	0.6687
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Interpolate	X	Y
Low Number =	0.5000	0.3333
High Number =	0.6000	0.4501

Queuing Calculations - WEDDING/EVENT

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$$

Q =	20	Processing rate (processes per hour)
q =	48	Demand rate (vehicles per hour)
N =	4	Service positions (attendants)
ρ =	0.600	Utilization factor (q/(NQ))
Q_m =	0.287	Table Value
M =	2.42	

	N = 1	2	3	4	6	8	10
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.1	0.1000	0.1820	0.0037	0.0080	0.0000	0.0000	0.0000
0.2	0.2000	0.0666	0.0247	0.0096	0.0015	0.0002	0.0000
0.3	0.3000	0.1385	0.0700	0.0370	0.0111	0.0036	0.0011
0.4	0.4000	0.2286	0.1411	0.0907	0.0400	0.0185	0.0088
0.5	0.5000	0.3333	0.2368	0.1739	0.0991	0.0591	0.0360
0.6	0.6000	0.4501	0.3548	0.2870	0.1965	0.1395	0.1013
0.7	0.7000	0.5766	0.4923	0.4286	0.3359	0.2706	0.2218
0.8	0.8000	0.7111	0.6472	0.5964	0.5178	0.4576	0.4093
0.9	0.9000	0.8526	0.8172	0.7878	0.7401	0.7014	0.6687
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Interpolate	X	Y
Low Number =	0.6000	0.2870
High Number =	0.7000	0.4286