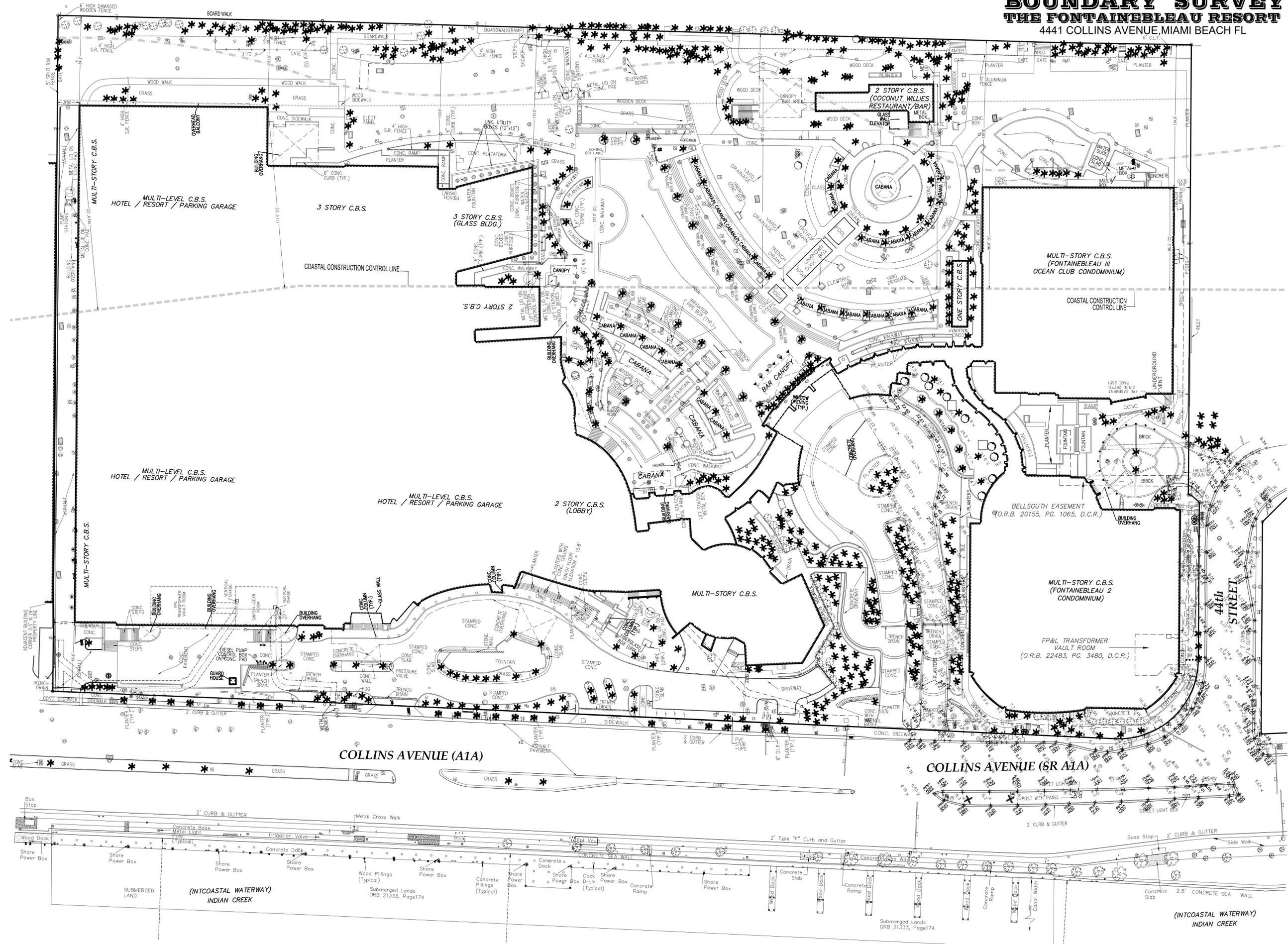


# BOUNDARY SURVEY

## THE FONTAINEBLEAU RESORT

4441 COLLINS AVENUE, MIAMI BEACH FL



DATE: Mar 13, 2020 - 12:14pm EST FILE: F:\SURVEY\PROJECTS\BROOKLYN\68658 FONTAINEBLEAU DEVELOPMENT BOUNDARY & PURPOSE SURVEY\2. CAD\2. DWG\4. PART 2\2- 8658 boundary survey pg 4 to 6.dwg



• SINCE 1898 •

4441 Collins Avenue, Miami Beach FL  
 FOR: FONTAINEBLEAU DEVELOPMENT  
 SCALE: 1"=50'  
 DATE: 09/18/19 APPROVED BY: S.B.  
 DRAWN BY: J.H. CHECKED BY: S.B.  
 F.B./P.G.: 3018/13

ORDER No.  
**03-86658**  
 SHEET No.  
**5 OF 5**

MAAMI/DADE  
 529 W. FLAGLER ST. MIAMI, FL 33130  
 TEL (305) 324-7671 FAX (305) 324-0809  
 449 NW 35TH ST. BOCA RATON, FL 33431  
 TEL (561) 609-2329  
 E-MAIL: INFO@BISCAYNEENGINEERING.COM  
 WEB: WWW.BISCAYNEENGINEERING.COM

This drawing is the property of Biscayne Engineering Company, Inc. and shall not be used or reproduced, in whole or in part, without the permission of Biscayne Engineering Company, Inc.

DC-6067

February 27, 2020

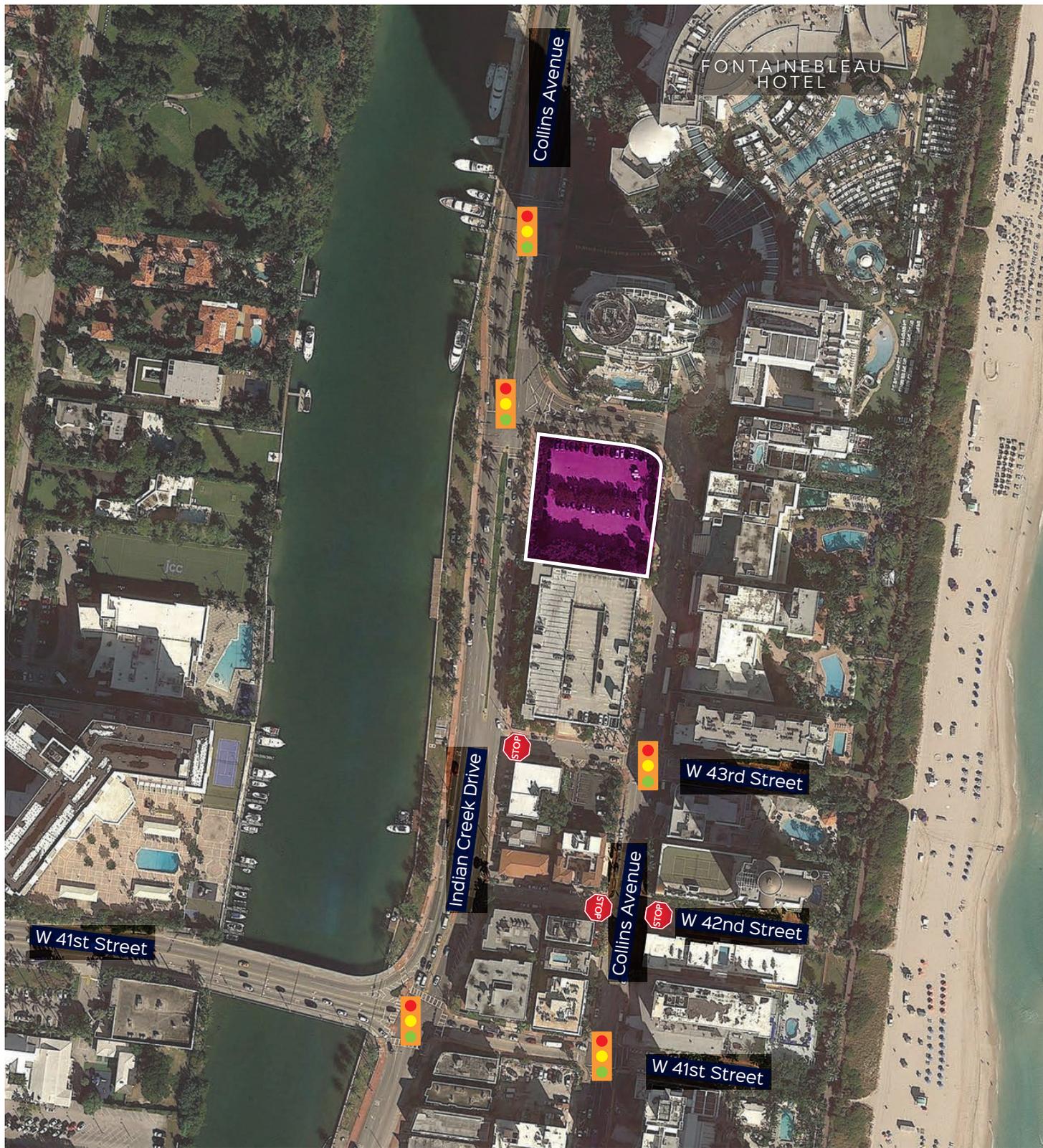
Firat Akcay, M.S.C.E. MBA  
Transportation Analyst  
Transportation and Mobility Department  
1688 Meridian Avenue, Suite 801  
Miami Beach, FL 33139  
305-673-7000, ext 6839  
[FiratAkcay@miamibeachfl.gov](mailto:FiratAkcay@miamibeachfl.gov)

**RE: The Fontainebleau Hotel Ballroom and Parking Garage Traffic Statement - #19185**

Dear Firat,

The proposed project is located at 4441 Collins Avenue in Miami Beach, Florida. The project is proposing to develop an existing Fontainebleau Hotel surface parking lot (at the southeast corner of the Collins Avenue / W 44<sup>th</sup> Street intersection) into a hotel ballroom and parking garage with approximately 278 parking spaces. The existing surface parking lot is currently used for employees. The proposed parking garage will also be restricted to employees. Additionally the proposed project will include a pedestrian bridge that connects the ballroom / garage building to the main campus, providing access to all guests. There is no guest drop-off/pick-up at the proposed building. Guests will use the existing arrival and departure valet areas at the main campus, keeping valet operations internal within the current operations. See Attachment A for the proposed site plan. Exhibit 1 shows the location of the project.

This traffic statement documents project location / background, trip generation analysis, intersection capacity analysis, valet operations / queuing, AutoTurn and circulation analysis.



■ Project Location

# Exhibit 1

## Location Map



### **Traffic Analysis Methodology**

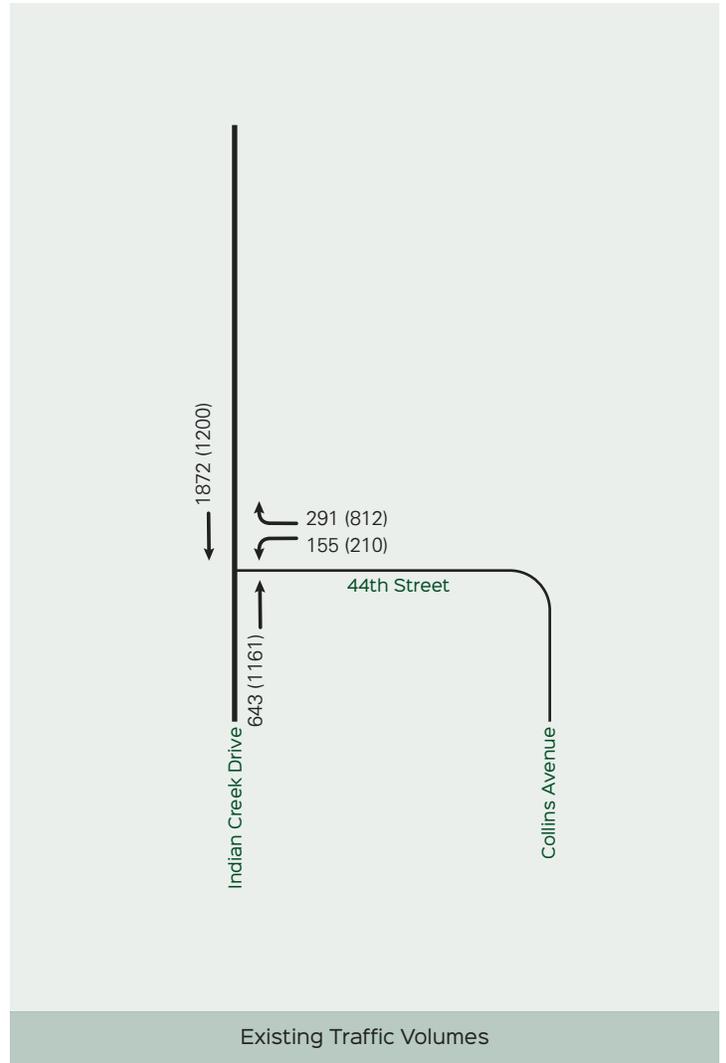
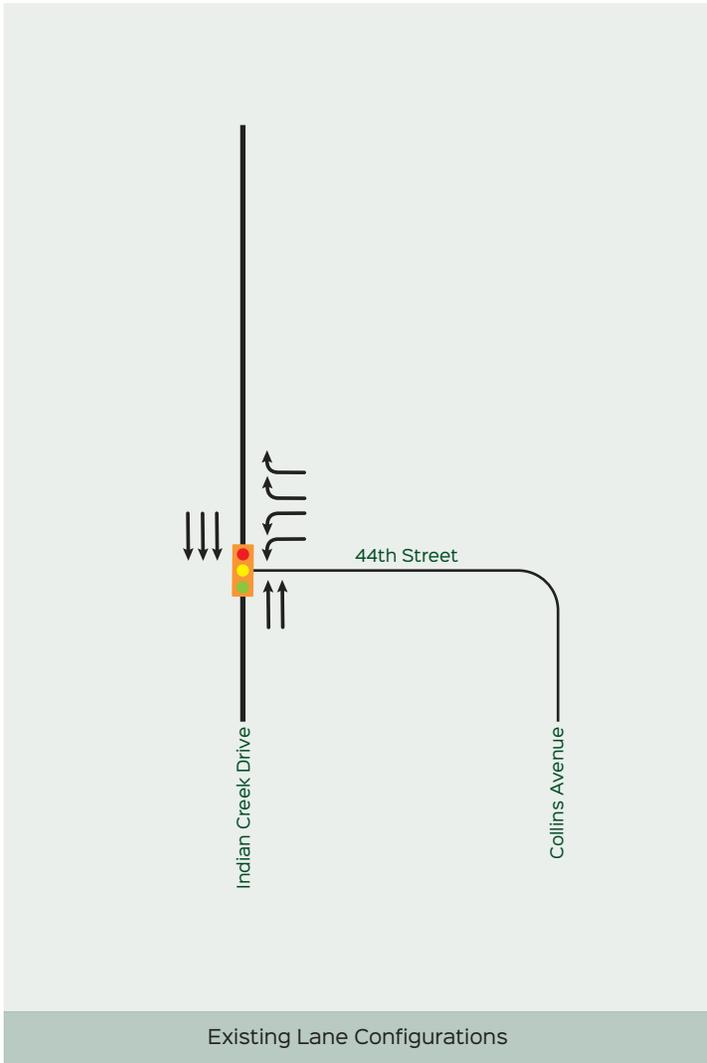
The intersection analysis was conducted for the AM and PM peak hours of a regular weekday, and was based on the typical requirements for the City of Miami Beach. The methodology used in the analysis is outlined below:

- Traffic Counts – Two-hour turning movement counts for the AM (7-9 AM) and PM (4-6 PM) peak hours were collected on January 22, 2020 at the Indian Creek Drive / 44<sup>th</sup> Street intersection, and are provided in Attachment B.
- Signal Location and Timing – Existing signal phasing and timing for the signalized intersection were obtained from Miami-Dade County (see Attachment B).
- Background Traffic – Available Florida Department of Transportation (FDOT) and Miami-Dade County (MDC) counts were consulted to determine a growth factor consistent with historical annual growth in the area. The growth factor was applied to the existing traffic volumes to establish background traffic.
- Future Transportation Projects – The 2020 TIP and the 2045 LRTP were reviewed and considered in the analysis at project build-out.
- Analysis – Intersection analysis was done using the Synchro software based on Highway Capacity Manual (HCM 6<sup>th</sup> Edition).

### **Traffic Data Collection**

Signal timing data was obtained from Miami-Dade County for the analyzed signalized intersection in this study. This information was used for the signal phasing and timing required for the intersection capacity analysis. A field survey was conducted to obtain the lane configurations used in the intersection analysis. Exhibit 2 shows the existing lane configurations. Signal timings are also provided in Attachment B.

Vehicle turning movement counts were collected on January 22, 2020 at the study intersection during the AM (7-9 AM) and PM (4-6 PM) peak periods. The counts were adjusted to reflect average annual daily traffic conditions using the latest weekly volume adjustment factors obtained from FDOT. A weekly volume adjustment factor of 1.04 (Miami-Dade County North) corresponding to the dates of the counts was used. Traffic counts are provided in Attachment B. Traffic volumes used in the analyses are shown in Exhibit 2.



00 AM  
(00) PM

## Exhibit 2

### Existing Conditions



### Existing Conditions Intersection Capacity Analysis

The Synchro software was used to perform intersection capacity analysis. Synchro is a macroscopic analysis and optimization software application that implements the Intersection Capacity Utilization method for determining intersection capacity. Synchro also supports the Highway Capacity Manual's methodology for signalized intersections. Exhibit 3 shows the resulting Level of Service (LOS) for AM and PM peak hour conditions. The analysis shows that the Indian creek Drive/ 44<sup>th</sup> Street intersection currently operates at LOS B and C during the AM and PM peak hours respectively. Capacity worksheets are included in Attachment C.

### Exhibit 3

#### Existing Conditions Intersection Capacity Analysis Weekday AM and PM Peak Hour Conditions

Intersection	Signalized/ Un-signalized	Direction	AM Peak		PM Peak	
			LOS	Delay	LOS	Delay
Indian Creek Drive / 44th Street	S	NB	A	5.4	B	13.4
		SB	A	3.1	A	4.8
		WB	E	57.3	D	54.9
		<b>Overall</b>	<b>B</b>	<b>11.9</b>	<b>C</b>	<b>23.1</b>

### Future Conditions

Average Daily Traffic counts published by the Miami-Dade Public Works Department and the FDOT were reviewed to determine historic growth in the area. This analysis indicated that the growth rate is 0.3% in the past years. However, a conservative 0.5% annual growth rate was used for the analysis. Historic growth rate documentation is included in Attachment B. In order to obtain future conditions for the year 2022, two years of background growth were applied to the existing traffic counts.

## Trip Generation and Distribution Analysis

A trip generation analysis was conducted for the proposed ballroom facilities. Trip generation for the project was based on the number of attendees expected at each type of space (ballroom, Jr. ballroom, and meeting space). In order to quantify daily and peak hour vehicle trips, percentages and rates were applied based on data provided by the Fontainebleau Development and engineering judgement. (See Attachment D for trip generation documentation). Percentages and rates include ballroom square footage per attendee, percent of attendees that are internal (hotel guests), vehicle occupancy, and percent of trips arriving during the peak hour. Similarly, trips associated with event employees were also calculated. The calculations for the peak hours assumed that not all of the ballroom space will be in operation simultaneously. Exhibit 4 shows the calculations for the proposed ballroom spaces and Exhibit 5 show the trip generation summary.

### EXHIBIT 4

Proposed Ballroom Trip Generation				
Calculations	Ballroom	Jr. Ballrom	Meeting Space	Percentages / Rates Applied
Area	16,247 SF	9,038 SF	6,249 SF	
Number of Attendees	464	258	178	35 SF/person <sup>1</sup>
Attendees - Internal	450	250	173	97% internal <sup>1</sup>
Attendees - External	14	8	5	3%
External Vehicles Trips	<b>7</b>	<b>4</b>	<b>2</b>	2 persons/auto <sup>2</sup>
Peak Hour Trips	<b>5</b>	<b>3</b>	<b>2</b>	75% arrive/depart during the peak hour
Number of Employees	32	18	11	7% of attendees <sup>3</sup>
Employees arriving by car	25	14	9	78% (Other modes of transportation at 22%) <sup>4</sup>
Employees Vehicles Trips	<b>23</b>	<b>13</b>	<b>8</b>	1.1 persons/auto <sup>5</sup>
Employees Peak Hour Trips	<b>8</b>	<b>4</b>	<b>3</b>	35% arrive/depart during the peak hour
<b>Total Daily Vehicle Trips</b>	<b>30</b>	<b>17</b>	<b>10</b>	
<b>Total Peak Hour Vehicle Trips</b>	<b>13</b>	<b>7</b>	<b>4</b>	

(1) Based on data provided by Fontainebleau Development

(2) Based on data provided by Miami Beach

(3) Based on information provided by Fontainebleau Development

(4) Based on survey data provided by Fontainebleau Development

(5) Calculated based on survey data provided by Fontainebleau Development

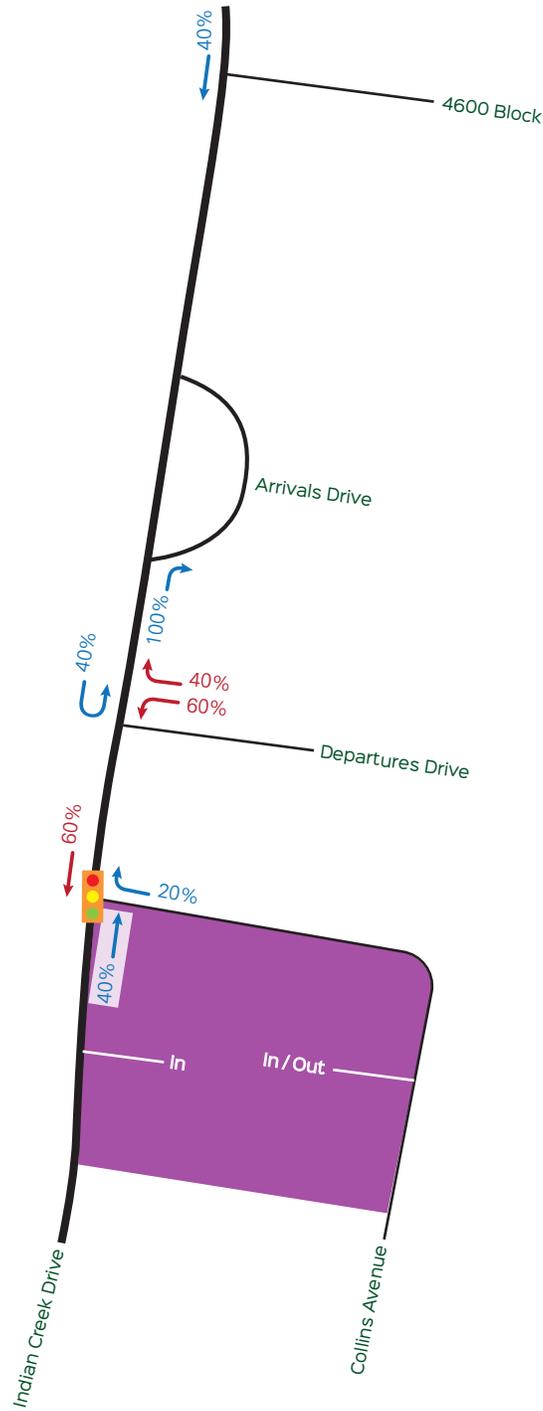
## EXHIBIT 5

<b>Proposed Trip Generation Summary</b>	
---	--

Peak Hour		AM Peak Hour			Daily	
Ballroom Trips	13	IN	80%	12	Ballroom Trips	30
Jr. Ballroom Trips	7	OUT	20%	3	Jr. Ballroom Trips	17
Meeting Space Trips	5	<b>PM Peak Hour</b>			Meeting Space Trips	10
Subtotal Trips (All Venues)	25	IN	30%	5	Total Vehicle Trips	57
Average % of Rented Events Space	60%	OUT	70%	10		
Total Vehicle Trips	15					

Ballroom event guest will be using the existing valet arrival and departure area at the Fontainebleau Hotel. Valet trips will remain internal to the main property. Employees will be accessing the proposed parking garage via the inbound driveway on Indian Creek Drive and the two-way driveway on Collins Avenue. For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. Project trip distribution for both guest and employees of the proposed project are shown on Exhibits 6 and 7. Furthermore existing employees currently using the north parking lot located east of Collins Avenue at the 4600 block, will now be using the proposed parking garage. These trips were redistributed on the roadway network to access the proposed parking garage.

The project trip assignments and background growth were combined to obtain future with project traffic volumes at the analyzed intersection. Future with project volumes for the AM and PM peak hour are shown in Exhibit 8.

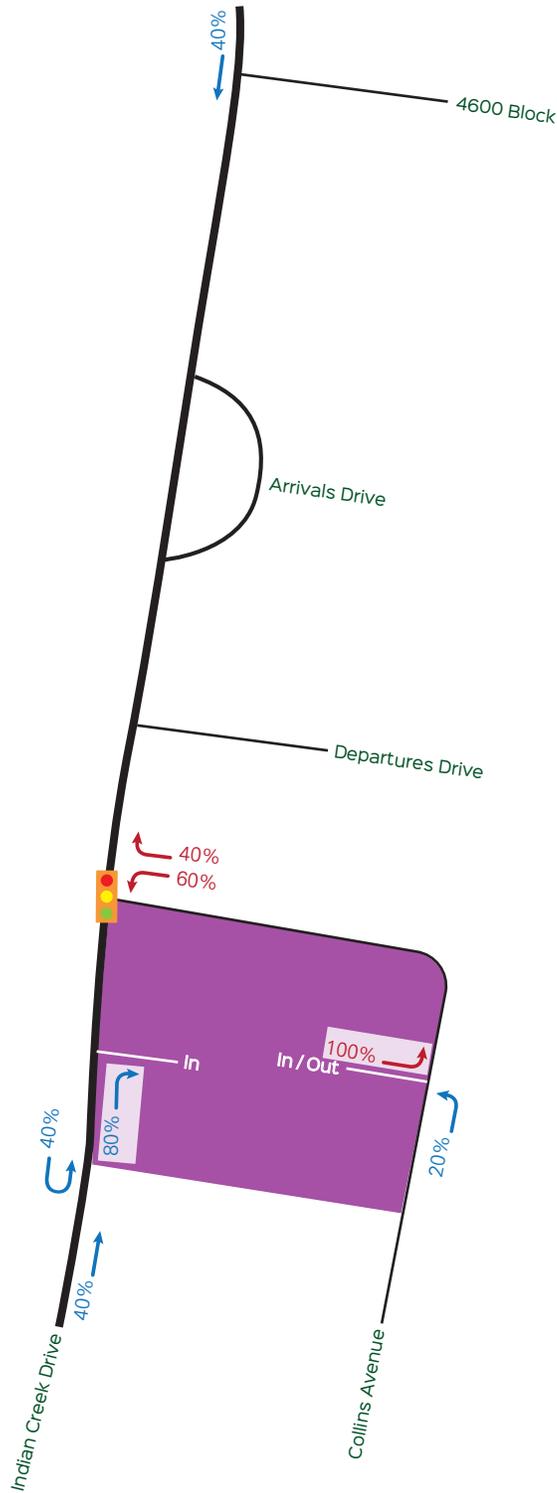


- In
- Out
- Project Location

## Exhibit 6

### Project Trip Distribution (Guest)



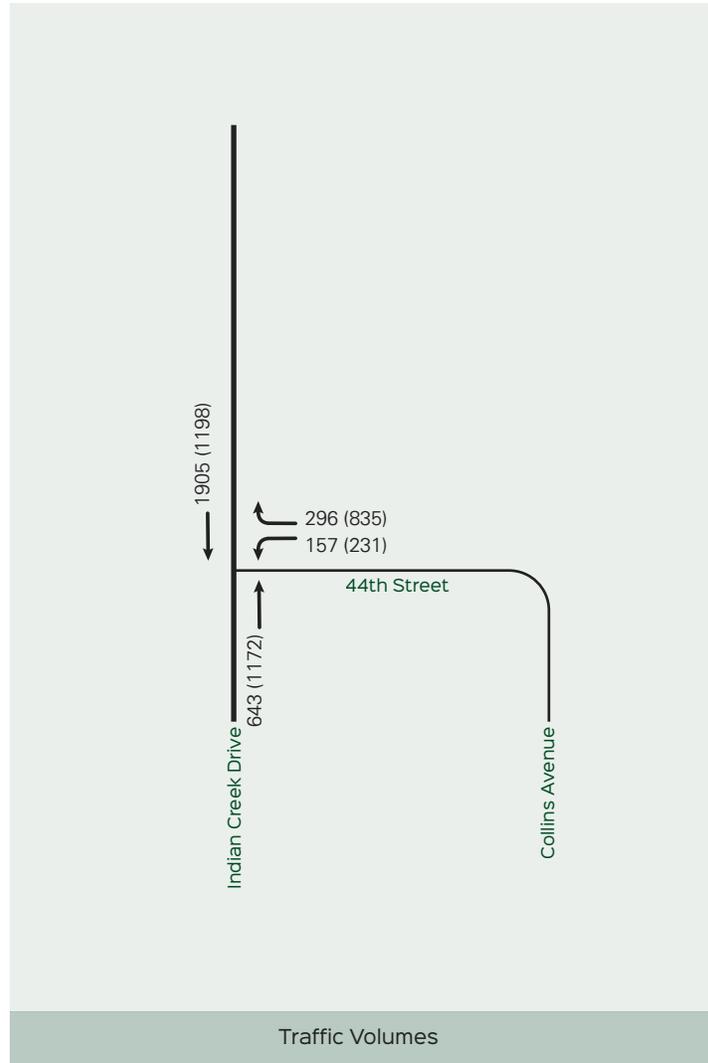


- Inbound %
- Outbound %
- Project Location

## Exhibit 7

### Project Trip Distribution (Employees)





00 AM  
(00) PM

## Exhibit 8

Future With Project AM & PM Peak Hour Traffic Volumes



**Future with Project Conditions Intersection Capacity Analysis**

The intersection of Indian Creek Drive / 44<sup>th</sup> Street was analyzed for future with project conditions. Exhibit 9 shows the resulting LOS for the AM and PM peak hours. The minor change in approach delays and overall delay is considered not significant. This intersection continues to and is projected to operate at LOS B and C during the AM and PM peak hours respectively. Capacity worksheets are included in Attachment C.

**Exhibit 9**  
**Weekday AM and PM Peak Hour Conditions**  
**Future with Project Conditions Intersection Capacity Analysis**

Intersection	Signalized/ Un-signalized	Direction	AM Peak		PM Peak	
			LOS	Delay	LOS	Delay
Indian Creek Drive / 44th Street	S	NB	A	5.5	B	14.8
		SB	A	3.2	A	5.0
		WB	E	57.2	D	53.3
		<b>Overall</b>	<b>B</b>	<b>11.9</b>	<b>C</b>	<b>23.5</b>

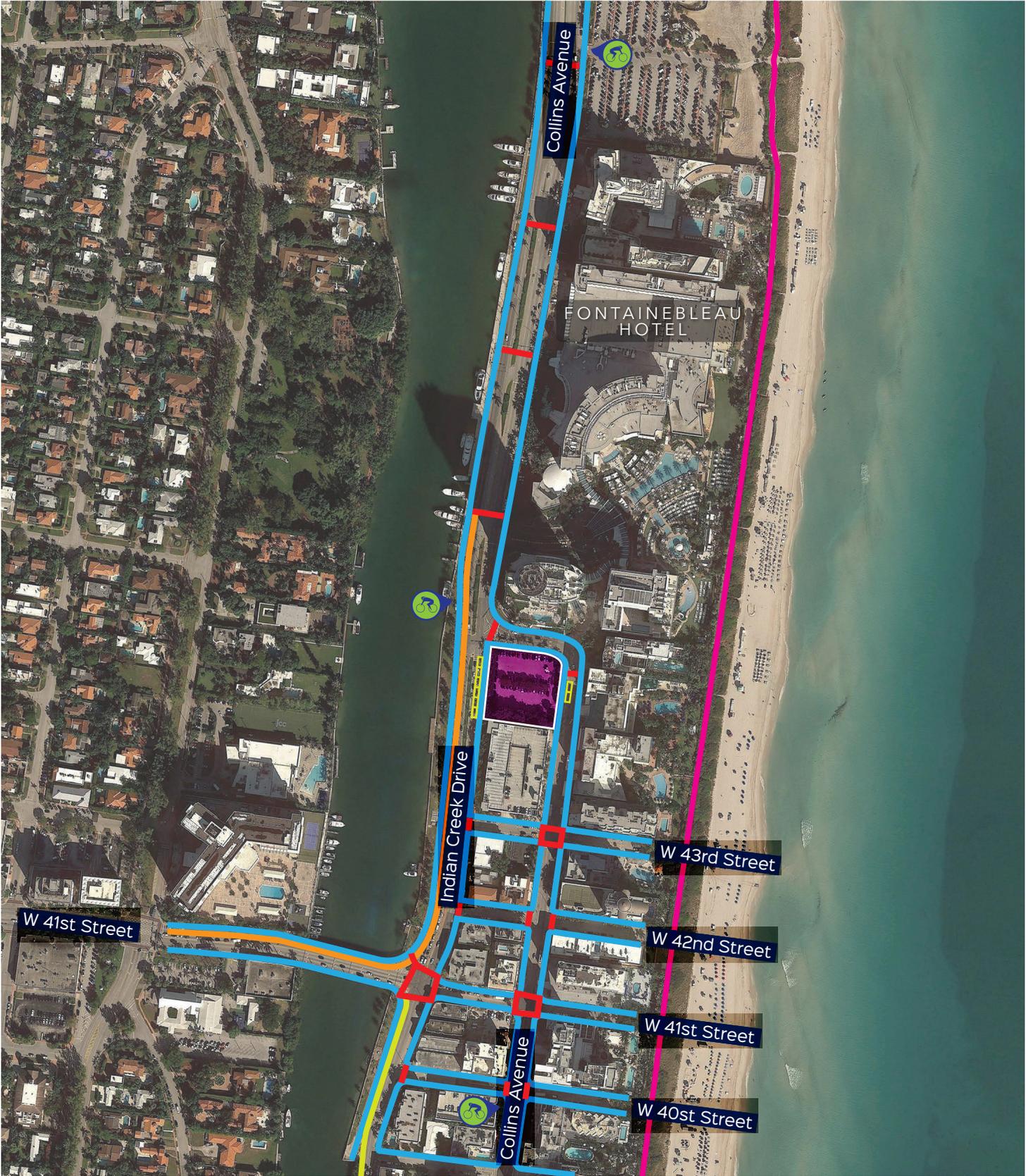
**Circulation Plan**

The proposed project is located at 4441 Collins Avenue in Miami Beach, Florida. The project is proposing to develop an existing Fontainebleau Hotel surface parking lot (at the southeast corner of the Collins Avenue / W 44th Street intersection) into a hotel ballroom and parking garage with approximately 278 parking spaces. The existing surface parking lot is currently used for employees and provides 148 parking spaces. The proposed parking garage will also be restricted to employees. Additionally the proposed project will include a pedestrian bridge that connects the ballroom / garage building to the main campus, providing the access for all guests. This keeps pedestrian traffic overhead reducing pedestrian conflicts with vehicles at grade crossings. There is no guest drop-off/pick-up at the proposed building. Guests will use the existing arrival and departure valet areas at the main campus, keeping valet operations internal. A mobility and circulation plan was prepared for the project. The plan discussed driveways, delivery areas, crosswalks, sidewalks, bike facilities, on-street parking, and the location of available transit in the vicinity of the project.

There are six (6) on-street parking spaces adjacent to the property along Collins Avenue currently designated as a taxi loading zone. Along Indian Creek Drive there are two (2) on-street parking spaces. The project will be removing the on-street parking adjacent to the property along both Collins Avenue and Indian Creek Drive (see Exhibit 10).

Loading and trash pick-up will be available on the southwest side of the parking garage. Loading / trash vehicles will enter the garage via a one-way driveway located on Indian Creek Drive and exit the garage via a driveway on Collins Avenue. An AutoTurn analysis was completed to evaluate the maneuverability of loading vehicles through the garage driveway. The design vehicle used was WB-50. The AutoTurn analysis is included in Attachment E.

The project is located in an urban area that is conducive for pedestrian and bicycle activities. The development is located approximately 0.3 miles from Indian Beach Park and directly adjacent to the Miami Beach Boardwalk. Indian Beach Park is a public park that provides public parking, Citi Bike Station 221, public beach access, and marks the start of the Miami Beach Boardwalk. All of the surrounding streets provide sidewalks on both sides of the road. All intersections adjacent to the site, have clearly marked crosswalks and most signalized intersections provide pedestrian signals. The project is providing bicycle racks on the first floor. Indian Creek Drive is a shared roadway with an exclusive bike lane south of 41<sup>st</sup> Street. There are three Citi Bike stations north and south of the project. The northern Citi Bike station is located within Indian Beach Park. The closest station is located across from the project on the west side of the Collins Avenue / 44<sup>th</sup> Street intersection. The most southern station is located on the southwest corner of the Collins Avenue / 40<sup>th</sup> Street intersection. A mobility plan was prepared for the site (see Exhibit 11). The plan shows the project location, bike lanes, shared bike lanes, sidewalk connections, and pedestrian crosswalks.



Project Location

# Exhibit 10

## Circulation Plan - Pedestrians

On-Street Parking



Citi Bike Station

Crosswalk

Sidewalk

Shared Road

Bike Lane

Miami Beach Boardwalk



**NORTH**  
MAP NOT TO SCALE



Miami Beach Trolley

- Collins Express
- Middle Beach Loop

Miami Dade Transit

- Route 113M / Route 110J / Route 103C
- Route 150 Miami Beach Airport Express
- Route 112L
- Route 119S

Project Location



Bus Stop



Bus & Trolley Stop

# Exhibit 11

## Circulation Plan - Transit



The area surrounding the project is served by transit. Two trolleys, the Middle Beach Loop and the Collins Express, are provided by the City of Miami Beach with stops close to the project site. There are also six MDT bus routes that traverse this area of Miami Beach (Routes: 103, 112, 110, 113, 119, and 150). Descriptions for each of the Miami-Dade Transit Routes providing service to the project area are provided below:

#### Route C (103)

Route C (103) operates on Collins Avenue / SR A1A and Indian Creek Drive within the vicinity of the project. This route serves the Adrienne Arsht Center Metromover Station / Bus Terminal, Jungle Island, Lincoln Road Mall area, and Mt. Sinai Hospital. This route operates with 20-minute headways throughout the day and provides connecting service to 23 additional Miami-Dade Transit bus routes, as well as the Metrorail via the Metromover.

#### Route J (110)

Route J (110) operates on Collins Avenue / SR A1A, Indian Creek Drive, and the Julia Tuttle Causeway (41<sup>st</sup> Street) within the vicinity of the project. This route serves the Allapattah Metrorail Station, Miami International Airport (MIA), MIA Metrorail Station, Tri-Rail Metrorail Station, and the MIA Metromover Station.

#### Route L (112)

Route L (112) operates on Collins Avenue / SR A1A and Indian Creek Drive within the vicinity of the project. This route serves the Miami Beach Convention Center, Normandy Drive, Northside Metrorail Station, Tri-Rail Metrorail Station, Hialeah Metrorail Station, and Amtrak Passenger Terminal. This route operates with 15-minute headways and provides connecting service to 24 additional Miami-Dade Transit bus routes, as well as the Metrorail and Tri-Rail.

#### Route M (113)

Route M (113) operates on Collins Avenue / SR A1A, Indian Creek Drive, and the Julia Tuttle Causeway (41<sup>st</sup> Street) within the vicinity of the project. This route serves the Adrienne Arsht Center Metromover Station / Bus Terminal, Civic Center Metrorail Station, and Mt. Sinai Hospital. This route operates with 40-minute headways and provides connecting service to 20 additional Miami-Dade Transit bus routes, as well as the Metrorail via the Metromover.

### Route S (119)

Route S (119) operates on Collins Avenue / SR A1A and Indian Creek Drive / SR A1A within the vicinity of the project. This route serves the Adrienne Arsht Center Metromover Station / Bus Terminal, Downtown Bus Terminal, Alton Road, and Aventura Mall. This route operates with 12-minute headways.

### Route 150

Route 150 (Airport Express) operates on Collins Avenue / SR A1A, Indian Creek Drive, and the Julia Tuttle Causeway (41<sup>st</sup> Street) within the vicinity of the project. This route operates with 20-minute headways through the day and provides connection to Lincoln Road, Earlington Heights Metrorail Station, and Miami International Airport.

The closest bus and trolley stop to the project site is located on Collins Avenue at the Collins Avenue / 4441 Exit driveway intersection directly in front of The Fontainebleau Hotel. Exhibit 11 shows the available bus routes and bus stops in the area. Transit information is available in Attachment F.

## **Queuing Analysis**

There is no guest drop-off/pick-up areas at the proposed site. All guest access to the proposed ballroom will be through the pedestrian bridge from the existing main campus. Ballroom event guests will be using the existing valet arrival and departure area at the Fontainebleau Hotel. Valet trips will remain internal to the main property. The proposed garage will be for employees only and will provide a total of 278 parking spaces. The ground level will provide 17 self-park temporary short term spaces. Parking level one (B1) will be self-park and valet assisted parking and will provide 83 parking spaces consisting of 13 standard spaces and 70 tandem spaces. Parking level two (B2) will be valet assisted parking and will provide 178 parking spaces consisting of 12 single vertical stackers and 76 tandem spaces with vertical stackers. Both parking level one (B1) and parking level two (B2) will have valet attendants to assist employees with parking vehicles in tandem / mechanical stackers. Access to the employee parking garage levels will be provided via a two-way ramp with mechanical arm gates. It's should be noted that access to this garage is limited to pre-authorized employees only with gate access.

Queuing analyses based on the methodology outlined in the *Institute of Transportation Engineers (ITE) Transportation and Land Development* were performed for the follow:

- Employee self-park with valet assist parking garage level one (B1)
- Employee valet assist parking garage level two (B2)
- Employee parking entrance gate
- Guest valet (Operations at the existing Fontainebleau Hotel)

## **Employee Valet Assist Queuing Analysis**

The potential demand was calculated based on employee shift information provided by Fontainebleau Hotel. Based on the employee shift breakdown, the peak valet demand will be 85 vehicles for arrival and departure of the 8:00 am - 4:30 pm shift. The peak demand was used for the purpose of calculating the number of valet attendants required to service each level and to ensure the expected queues at the entrance to the employee parking level does not spill into the public right-of-way or interfere with internal circulation of the parking garage.

The number of vehicles trips distributed to each parking level was done proportionate to the number of parking spaces per level. Therefore, 32% trips were assigned to level one (B1) and 68% to level two (B2). Since parking level one (B1) will mostly be self-park, not all of the demand will be processed by the valet attendants. During the arrival of a shift, employees will self-park their vehicles in tandem spaces. Employees that park on the second tandem space will leave their keys with the valet attendant. During the departure of a shift, valet attendants will assist by maneuvering vehicles parked on the second tandem space as needed. Based on the proposed operations on this level, it was assumed that 25% of the demand on level one will be processed by the valet attendants. On level two (B2) the upper stacked spaces will be partially used for long term guest vehicles and partially for employee vehicles on demand. Based on the parking spaces distribution (45 upper spaces / 133 valet spaces), it was assumed that 75% of the demand on level two (B2) will be processed by the valet attendants. When employees arrive or depart work at set times, their vehicle trips do not spread evenly throughout an hour. Employee's vehicle trips tend to peak in the last 30 to 15 minutes of their start time and first 15 to 30 minutes of their departure time. To account for this condition, a factor of 1.4 was applied to the calculated vehicle volume. Based on these assumptions, the expected volume at each queuing area was calculated as followed:

- Entrance Gate: 85 veh/hr x 1.4 = 119 veh/hr
- Level one (B1): 85 veh/hr x 1.4 x 32% (*assigned to B1*) x 25% (*valet volume*) = 10 veh/hr
- Level two (B2): 85 veh/hr x 1.4 x 68% (*assigned to B2*) x 75% (*valet volume*) = 61 veh/hr

The queuing analyses for the valet areas were performed based on the methodology outlined in the *Institute of Transportation Engineers (ITE) Transportation and Land Development*. A queuing analysis was performed at each parking level to determine the number of valet parking attendants required for each station during the peak period so that the expected queue fits within the provided storage area (95% confidence level analysis).

The queuing analysis used the single-channel waiting line model with Poisson arrivals and exponential service times. The analysis is based on the coefficient of utilization ( $\rho$ ) which is the ratio of the average arrival rate of vehicles to the average service rate.

$$\rho = \frac{\text{Average Demand Rate}}{\text{Average Service Rate}}$$

The average service rate corresponds to the time it will take a valet parking attendant to park or retrieve a vehicle. If the coefficient of utilization is greater than 1, then the calculation will yield an infinite queue length.

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

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

In this equation,  $P(x > M)$  is set at 5% to yield a 95% confidence that the queue will not back-up onto the adjacent street.

The processing rates were calculated by adding the time it will take a valet attendant to process the vehicles (**processing time**), the time it will take the valet attendant to circulate to the parking space (**driving time**), the time it will take him to park or retrieve a vehicle (**mechanical lift processing time** and **tandem space processing time**), and the time it will take the valet attendant to walk to/from the parking area (**walking time**). A processing time of 51 seconds per vehicle was used in the analysis. This information is based on data collected from a hotel on Miami Beach (see Attachment G). The driving time for the valet attendant was calculated on a conservative speed of 15 mph, and the walking time for the valet attendant was calculated on a jogging speed of 8 ft / sec. The valet processing rate for parking level one (B1) can be seen in Exhibit 12.

Parking Level One (B1) Valet:

**Exhibit 12  
Parking Level One (B1)  
Valet Processing Rate**

**Valet Time (Inbound/Outbound)**

<b>Processing time:</b>	51 sec / 60 sec / 1 min = <b>0.85 min</b>
<b>Driving time:</b>	250 ft * 1 mile / 5280 ft * 1hr / 15 miles * 60 min / hr = <b>0.19 min</b>
<b>Tandem Park Processing Time:</b>	0.15 min / movement * 2 movements = <b>0.30 min</b>
<b>Walking time:</b>	250 ft / 8 ft / sec / 60 sec / min = <b>0.52 min</b>
<b>Total</b>	= <b><u>1.86 min</u></b>

An iterative approach was used to determine the minimum number of valet attendants required during the peak hour to serve both the entering and/or exiting vehicles that will ensure that the average queue at parking level one (B1) will not interfere with internal circulation. Exhibit 13 shows the calculations for the valet during both the am peak hour (inbound) and pm peak hour (outbound).

**Exhibit 13  
Parking Level One (B1)  
Valet Queuing Calculations**

$$Q = \text{Processing Rate} = \frac{60 \text{ min/hr}}{1.86 \text{ min/process}} = 32.25 \text{ process/hr}$$

$$q = \text{Demand Rate} = 85 \frac{\text{veh}}{\text{hr}} \times 1.4 \times 32\% \times 25\% = 10 \frac{\text{veh}}{\text{hr}}$$

$$N = \text{Service Positions} = 1 \text{ Attendant}$$

$$\rho = \text{Utilization factor} = \frac{q}{(NQ)} = \frac{10 \text{ veh/hr}}{1 \times 32 \text{ process/hr}} = 0.3100$$

$$Q_m = \text{Table Value} = 0.3100$$

M = queue length which is exceeded 5% of the time [P(x>M)]

$$M = \frac{\ln P(x>M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.3100)}{\ln(0.3100)} - 1 = 0.59, \text{ say 1 Vehicle on queue}$$

The results of the analysis show that 1 valet attendant would be able to handle the demand during peak shift at parking level one with an average queue of approximately one vehicle or less.

**Parking Level Two (B2) Valet:**

As with parking level one, a processing time of 51 seconds per vehicle was used in the analysis. The driving time for the valet attendant was calculated based on a speed of 15 mph, and the walking time for the valet attendant was calculated on a jogging speed of 8 ft / sec. In addition, parking level two (B2) will have vertical stackers. The *mechanical lift time* has a process time of 30 seconds per platform lift. The valet processing rate for parking level two (B2) can be seen in Exhibit 14.

**Exhibit 14  
Parking Level Two (B2)  
Valet Processing Rate**

**Valet Time (Inbound/Outbound)**

<b><i>Processing time:</i></b>	51 sec / 60 sec / 1 min = <b>0.85 min</b>
<b><i>Driving time:</i></b>	250 ft * 1 mile / 5280 ft * 1hr / 15 miles * 60 min / hr = <b>0.19 min</b>
<b><i>Mechanical Lift Processing Time:</i></b>	30 sec / lift * 2 lift * 1 min / 60 sec = <b>1.50 min</b>
<b><i>Tandem Park Processing Time:</i></b>	0.15 min / movement * 2 movements = <b>0.30 min</b>
<b><i>Walking time:</i></b>	250 ft / 8 ft / sec / 60 sec / min = <b>0.52 min</b>
<b>Total</b>	= <b><u>2.86 min</u></b>

An iterative approach was used to determine the minimum number of valet attendants required during the peak hour to serve both the entering and/or exiting vehicles that will ensure that the average queue at parking level two (B2) will not interfere with internal circulation. Exhibit 15 shows the calculations for the valet during both the am peak hour (inbound) and pm peak hour (outbound).

**Exhibit 15**  
**Parking Level Two (B2)**  
**Valet Queuing Calculations**

$$Q = \text{Processing Rate} = \frac{60 \text{ min/hr}}{2.86 \text{ min/process}} = 20.97 \text{ process/hr}$$

$$q = \text{Demand Rate} = 85 \frac{\text{veh}}{\text{hr}} \times 1.4 \times 68\% \times 75\% = 61 \frac{\text{veh}}{\text{hr}}$$

$$N = \text{Service Positions} = 4 \text{ Attendants}$$

$$\rho = \text{Utilization factor} = \frac{q}{(NQ)} = \frac{61 \text{ veh/hr}}{4 \times 21 \text{ process/hr}} = 0.7269$$

$$Q_m = \text{Table Value} = 0.4739$$

$M = \text{queue length which is exceeded 5\% of the time [P(x>M)]$

$$M = \frac{\ln P(x>M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.4739)}{\ln(0.7269)} - 1 = 6.05, \text{ say } 7 \text{ vehicles on queue}$$

The results of the analysis show that a total of 4 valet attendants would be able to handle the demand during peak shift at parking level two with an average queue of approximately seven vehicles or less.

**Employee Parking Entrance Gate Queuing Analysis**

The project is proposing a ramp that will provide employees direct access to the employee parking level of the parking garage. Access to the employee parking will be restricted via a mechanical arm gate. A queuing analysis was performed to determine the anticipated queue at the mechanical arm gate for the employee parking during the peak inbound demand. Based on the employee shift breakdown, the peak inbound valet demand will be 85 vehicles (shift beginning at 8:00 am).

The queuing analysis used the single-channel waiting line model with Poisson arrivals and exponential service times. The analysis is based on the coefficient of utilization ( $\rho$ ) which is the ratio of the average arrival rate of vehicles to the average service rate.

$$\rho = \frac{\text{Average Demand Rate}}{\text{Average Service Rate}}$$

The average service rate corresponds to the time it will take an employee to conservatively pass through the mechanical arm gate. If the coefficient of utilization is greater than 1, then the calculation will yield an infinite queue length.

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

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

In this equation,  $P(x > M)$  is set at 5% to yield a 95% confidence that the queue will not back-up onto the adjacent street.

The time for an employee to conservatively pass through the mechanical arm gate with a card reader is 4.25 seconds per vehicle (0.07 minutes per vehicle). This data was collected at a similar parking garage with a mechanical arm gate and card reader (see Attachment G). Exhibit 16 shows the calculations for the gate entrance.

### Exhibit 16 Employee Parking Entrance Queue Calculations

$$Q = \text{Processing Rate} = \frac{60 \text{ min/hr}}{0.07 \text{ min/process}} = 847.06 \text{ process/hr}$$

$$q = \text{Demand Rate} = 85 \frac{\text{veh}}{\text{hr}} \times 1.4 = 119 \frac{\text{veh}}{\text{hr}}$$

$$N = \text{Service Positions} = 1 \text{ lane}$$

$$\rho = \text{Utilization factor} = \frac{q}{(NQ)} = \frac{119 \text{ veh/hr}}{1 \times 847.06 \text{ process/hr}} = 0.1405$$

$$Q_m = \text{Table Value} = 0.1405$$

$$M = \text{queue length which is exceeded 5\% of the time [P(x>M)]}$$

$$M = \frac{\ln P(x>M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.1405)}{\ln(0.1405)} - 1 = -0.47 \text{ say } no \text{ vehicles on queue}$$

The result of the analysis shows that during peak arrival hour (inbound) there will be no vehicle queue expected at the employee gate entrance.

The results of the queuing analysis shows that one valet attendant at parking level one (B1) and four valet attendants at parking level two (B2) is sufficient to handle the expected demand. The

results of the queuing analysis also shows no vehicles queue at employee parking mechanical gate entrances. It should be noted that the queuing analysis considers the worst case scenario during the peak hours to make sure that the queue never spills onto the public right-of-way or interferes with site operations. Once operational, the development can assess the actual need for valet attendants at different times of day and make adjustments as needed.

### **Guest Valet Queuing (Operations at the Existing Fontainebleau Hotel)**

The existing valet service at the Fontainebleau Hotel provides two separate valet areas, one for arrivals and one for departures. Since ballroom event guests will be using the existing valet arrival and departure areas at the Fontainebleau Hotel a comparison of existing and with project conditions was completed. It should be noted that as with existing operations, valet trips will remain internal to the main property. Data showing peak hourly valet demand (average of the three peak months) at arrivals and departures was provided by the Fontainebleau Development. Peak hour vehicle trips (see Exhibit 3 and 4) associated with the proposed ballrooms were added to the AM and PM peak hour of the valet demand.

The queuing analysis for the existing valet areas were performed based on the methodology outlined in the *Institute of Transportation Engineers (ITE) Transportation and Land Development*. In order to calculate the valet processing time, several assumptions were taken. A processing time of 51 seconds per vehicle was used in the analysis. This information is based on data collected from a hotel on Miami Beach (see Attachment G). The driving time for the valet attendant was calculated on a conservative speed of 15 mph, and the walking time for the valet attendant was calculated on a jogging speed of 8 ft / sec. An average distance of 1,000 feet from the arrival area to the existing parking garage and an average distance of 750 feet from the existing parking garage to the departure area was assumed. The valet processing rate and queuing calculations for the arrival and departure area were included in Attachment G. Exhibit 17 provided a comparison of existing and with project condition based on the assumption made for purpose of this analysis. The comparison shows that the additional demand associated with the proposed ballroom space represent approximately one new vehicle or less to the queues at the arrival and departure areas. Therefore, the impact of the addition of the ballroom space to the existing valet operations at the Fontainebleau Hotel can be considered *de minimis*.

**Exhibit 17**

**Guest Valet at the Fontainebleau Hotel Queuing Comparison**

AM Peak Hour	Arrival			Departure		
	Valet Demand	Number of Valet Attendants	Expected Queue (veh)	Valet Demand	Number of Valet Attendants	Expected Queue (veh)
Existing	8	2	-0.51	18	2	1.13
With Project	13	2	0.65	19	2	1.4
Difference	5	0	1.16	1	0	0.27
PM Peak Hour	Arrival			Departure		
	Valet Demand	Number of Valet Attendants	Expected Queue (veh)	Valet Demand	Number of Valet Attendants	Expected Queue (veh)
Existing	33	4	0.91	35	4	0.04
With Project	35	4	1.37	39	4	0.61
Difference	2	0	0.46	4	0	0.57

**Conclusions**

A trip generation analysis was completed for the proposed project. The results of the trip generation analysis indicate that the proposed development represents 15 vehicle trips during both the AM and PM peak hours. An intersection capacity analysis was completed for the Indian Creek Drive / 44<sup>th</sup> Street intersection. The results of the analysis for existing and future with project conditions shows that this intersection operates at LOS B and C during the AM and PM peak hours respectively. Therefore, the impact of the addition of the ballroom space and parking garage on the adjacent roadway network can be considered *de minimis*.

A mobility and circulation plan was also completed. The plan shows that the project area is currently served by six Miami-Dade Transit bus routes and two Miami Beach Trolley routes. The project is located in an urban area that is conducive for pedestrian and bicycle activities providing shared bike lanes, bike rental stations, ample sidewalks, and crosswalks. These conditions encourage the use other modes of transportation and reduce the vehicular impact on the roadway network.

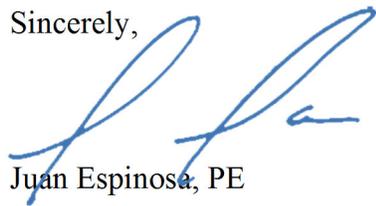
Queuing analyses for the proposed valet assist parking garage levels and the employee entrance gate were performed. The results of the queuing analysis shows that one valet attendant at parking level one (B1) and four valet attendants at parking level two (B2) is sufficient to handle the

expected demand. The results of the queuing analysis also show no vehicles queue at employee parking mechanical gate entrances. As previously noted the queuing analysis considers the worst case scenario during the peak hours to make sure that the queue never spills onto the public right-of-way or interferes with site operations. Once operational, the development can assess the actual need for valet attendants at different times of day and adjustments as needed.

The queuing analysis for the guest valet at the existing valet areas and a comparison of existing and with project condition were performed. The comparison shows that the additional demand associated with the proposed ballroom space represent approximately one new vehicle or less to the queues at the arrival and departure areas. Therefore, the impact of the addition of the ballroom space to the existing valet operations at the Fontainebleau Hotel can be considered *de minimis*.

We stand ready to provide any support needed for this project. Should you have any questions or comments, please call me at (305) 447-0900.

Sincerely,



Juan Espinosa, PE

Vice President – Transportation

cc: File

Attachments

W:\19\19185\Traffic Statement FEB 2020\The Fontainebleau Hotel Traffic Statement\_Feb 2020.docx

# **ATTACHMENT A**

## **Site Plan**



1 GROUND LEVEL - FLOOR PLAN  
 A1.01 1/16" = 1'-0"



# **ATTACHMENT B**

**Traffic Counts**

**Signal Timings**

**FDOT Adjustment Factors**

**Historical Growth**

**LRTP / TIP**

# Traffic Counts

## National Data & Surveying Services

# Intersection Turning Movement Count

**Location:** Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave

**City:** Miami Beach

**Control:**

**Project ID:** 20-03028-001

**Date:** 1/22/2020

### Total

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave				TOTAL				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
7:00 AM	0	114	0	0	0	404	0	0	0	0	0	0	32	0	53	0					603
7:15 AM	0	172	0	0	0	332	0	0	0	0	0	0	32	0	52	0					588
7:30 AM	0	132	0	0	0	399	0	0	0	0	0	0	30	0	53	0					614
7:45 AM	0	158	0	0	0	423	0	0	0	0	0	0	31	0	79	0					691
8:00 AM	0	138	0	0	0	458	0	0	0	0	0	0	36	0	66	0					698
8:15 AM	0	154	0	0	0	495	0	0	0	0	0	0	35	0	76	0					760
8:30 AM	0	148	0	0	0	407	0	0	0	0	0	0	39	0	64	0					658
8:45 AM	0	178	0	0	0	440	0	0	0	0	0	0	39	0	74	0					731
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
<b>APPROACH %'s :</b>	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	34.64%	0.00%	65.36%	0.00%					5343
<b>PEAK HR :</b>	<b>08:00 AM - 09:00 AM</b>																<b>TOTAL</b>				
<b>PEAK HR VOL :</b>	0	618	0	0	0	1800	0	0	0	0	0	0	149	0	280	0					2847
<b>PEAK HR FACTOR :</b>	0.000	0.868	0.000	0.000	0.000	0.909	0.000	0.000	0.000	0.000	0.000	0.000	0.955	0.000	0.921	0.000					0.937
	0.868				0.909								0.949								

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave				TOTAL				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
4:00 PM	0	219	0	0	0	332	0	0	0	0	0	0	53	0	188	0					792
4:15 PM	0	247	0	0	0	273	0	0	0	0	0	0	48	0	167	0					735
4:30 PM	0	219	0	1	0	345	0	0	0	0	0	0	65	0	188	0					818
4:45 PM	0	258	0	0	0	288	0	0	0	0	0	0	52	0	166	0					764
5:00 PM	0	258	0	0	0	289	0	0	0	0	0	0	60	0	219	0					826
5:15 PM	0	278	0	0	0	263	0	1	0	0	0	0	40	0	158	0					740
5:30 PM	0	292	0	0	0	330	0	0	0	0	0	0	61	0	212	0					895
5:45 PM	0	288	0	0	0	271	0	0	0	0	0	0	41	0	192	0					792
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
<b>APPROACH %'s :</b>	0.00%	99.95%	0.00%	0.05%	0.00%	99.96%	0.00%	0.04%	0	0	0	0	21.99%	0.00%	78.01%	0.00%					6362
<b>PEAK HR :</b>	<b>05:00 PM - 06:00 PM</b>																<b>TOTAL</b>				
<b>PEAK HR VOL :</b>	0	1116	0	0	0	1153	0	1	0	0	0	0	202	0	781	0					3253
<b>PEAK HR FACTOR :</b>	0.000	0.955	0.000	0.000	0.000	0.873	0.000	0.250	0.000	0.000	0.000	0.000	0.828	0.000	0.892	0.000					0.909
	0.955				0.874								0.881								

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
**City:** Miami Beach  
**Control:** 0

**Project ID:** 20-03028-001  
**Date:** 1/22/2020

### Cars

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	111	0	0	0	392	0	0	0	0	0	0	28	0	47	0	578
7:15 AM	0	169	0	0	0	326	0	0	0	0	0	0	29	0	48	0	572
7:30 AM	0	125	0	0	0	388	0	0	0	0	0	0	26	0	49	0	588
7:45 AM	0	155	0	0	0	417	0	0	0	0	0	0	29	0	69	0	670
8:00 AM	0	134	0	0	0	444	0	0	0	0	0	0	29	0	58	0	665
8:15 AM	0	149	0	0	0	489	0	0	0	0	0	0	33	0	68	0	739
8:30 AM	0	146	0	0	0	398	0	0	0	0	0	0	35	0	59	0	638
8:45 AM	0	169	0	0	0	426	0	0	0	0	0	0	33	0	70	0	698
<b>TOTAL VOLUMES :</b>	0	1158	0	0	0	3280	0	0	0	0	0	0	242	0	468	0	5148
<b>APPROACH %'s :</b>	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					34.08%	0.00%	65.92%	0.00%	
<b>PEAK HR :</b>	08:00 AM - 09:00 AM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	0	598	0	0	0	1757	0	0	0	0	0	0	130	0	255	0	2740
<b>PEAK HR FACTOR :</b>	0.00	0.885	0.000	0.000	0.000	0.898	0.000	0.000	0.000	0.000	0.000	0.000	0.929	0.000	0.911	0.000	0.927
	0.885				0.898								0.934				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	214	0	0	0	325	0	0	0	0	0	0	49	0	178	0	766
4:15 PM	0	244	0	0	0	262	0	0	0	0	0	0	42	0	161	0	709
4:30 PM	0	218	0	0	0	340	0	0	0	0	0	0	61	0	179	0	798
4:45 PM	0	257	0	0	0	281	0	0	0	0	0	0	47	0	161	0	746
5:00 PM	0	257	0	0	0	279	0	0	0	0	0	0	58	0	212	0	806
5:15 PM	0	277	0	0	0	253	0	1	0	0	0	0	36	0	155	0	722
5:30 PM	0	292	0	0	0	323	0	0	0	0	0	0	56	0	202	0	873
5:45 PM	0	285	0	0	0	265	0	0	0	0	0	0	39	0	186	0	775
<b>TOTAL VOLUMES :</b>	0	2044	0	0	0	2328	0	1	0	0	0	0	388	0	1434	0	6195
<b>APPROACH %'s :</b>	0.00%	100.00%	0.00%	0.00%	0.00%	99.96%	0.00%	0.04%					21.30%	0.00%	78.70%	0.00%	
<b>PEAK HR :</b>	05:00 PM - 06:00 PM																<b>TOTAL</b>
<b>PEAK HR VOL :</b>	0	1111	0	0	0	1120	0	1	0	0	0	0	189	0	755	0	3176
<b>PEAK HR FACTOR :</b>	0.00	0.951	0.000	0.000	0.000	0.867	0.000	0.250	0.000	0.000	0.000	0.000	0.815	0.000	0.890	0.000	0.910
	0.951				0.868								0.874				

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
**City:** Miami Beach  
**Control:** 0

**Project ID:** 20-03028-001  
**Date:** 1/22/2020

**HT**

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave				TOTAL				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
7:00 AM	0	3	0	0	0	12	0	0	0	0	0	0	4	0	6	0					25
7:15 AM	0	3	0	0	0	6	0	0	0	0	0	0	3	0	4	0					16
7:30 AM	0	7	0	0	0	11	0	0	0	0	0	0	4	0	4	0					26
7:45 AM	0	3	0	0	0	6	0	0	0	0	0	0	2	0	10	0					21
8:00 AM	0	4	0	0	0	14	0	0	0	0	0	0	7	0	8	0					33
8:15 AM	0	5	0	0	0	6	0	0	0	0	0	0	2	0	8	0					21
8:30 AM	0	2	0	0	0	9	0	0	0	0	0	0	4	0	5	0					20
8:45 AM	0	9	0	0	0	14	0	0	0	0	0	0	6	0	4	0					33
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
<b>APPROACH %'s :</b>	0	36	0	0	0	78	0	0	0	0	0	0	32	0	49	0					195
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					39.51%	0.00%	60.49%	0.00%					
<b>PEAK HR :</b>	<b>08:00 AM - 09:00 AM</b>																				TOTAL
<b>PEAK HR VOL :</b>	0	20	0	0	0	43	0	0	0	0	0	0	19	0	25	0					107
<b>PEAK HR FACTOR :</b>	0.000	0.556	0.000	0.000	0.000	0.768	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.000	0.781	0.000					0.811
		0.556				0.768									0.733						

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave				TOTAL				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
4:00 PM	0	5	0	0	0	7	0	0	0	0	0	0	4	0	10	0					26
4:15 PM	0	3	0	0	0	11	0	0	0	0	0	0	6	0	6	0					26
4:30 PM	0	1	0	0	0	5	0	0	0	0	0	0	4	0	9	0					19
4:45 PM	0	1	0	0	0	7	0	0	0	0	0	0	5	0	5	0					18
5:00 PM	0	1	0	0	0	10	0	0	0	0	0	0	2	0	7	0					20
5:15 PM	0	1	0	0	0	10	0	0	0	0	0	0	4	0	3	0					18
5:30 PM	0	0	0	0	0	7	0	0	0	0	0	0	5	0	10	0					22
5:45 PM	0	3	0	0	0	6	0	0	0	0	0	0	2	0	6	0					17
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
<b>APPROACH %'s :</b>	0	15	0	0	0	63	0	0	0	0	0	0	32	0	56	0					166
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					36.36%	0.00%	63.64%	0.00%					
<b>PEAK HR :</b>	<b>05:00 PM - 06:00 PM</b>																				TOTAL
<b>PEAK HR VOL :</b>	0	5	0	0	0	33	0	0	0	0	0	0	13	0	26	0					77
<b>PEAK HR FACTOR :</b>	0.00	0.417	0.000	0.000	0.000	0.825	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.650	0.000					0.875
		0.417				0.825									0.650						

# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
**City:** Miami Beach  
**Control:** 0

**Project ID:** 20-03028-001  
**Date:** 1/22/2020

### Bikes

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	<b>TOTAL</b>	
<b>APPROACH %'s :</b>	0	6	0	0	1	6	0	0	0	0	0	0	0	0	4	0	17	
<b>PEAK HR :</b>	08:00 AM - 09:00 AM																	
<b>PEAK HR VOL :</b>	0	3	0	0	1	4	0	0	0	0	0	0	0	0	3	0	11	
<b>PEAK HR FACTOR :</b>	0.000	0.375	0.000	0.000	0.250	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.688	
	0.375				0.625								0.750					

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave				Indian Creek Dr/A1A/Collins Ave				44th St/Collins Ave				44th St/Collins Ave					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
4:15 PM	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
4:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	6	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	0
<b>TOTAL VOLUMES :</b>	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	<b>TOTAL</b>	
<b>APPROACH %'s :</b>	0	10	2	0	0	10	0	0	0	0	0	0	1	0	14	0	37	
<b>PEAK HR :</b>	05:00 PM - 06:00 PM																	
<b>PEAK HR VOL :</b>	0	4	1	0	0	6	0	0	0	0	0	0	0	0	10	0	21	
<b>PEAK HR FACTOR :</b>	0.00	0.250	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.438	
	0.313				0.500								0.417					

# National Data & Surveying Services

## Intersection Turning Movement Count

Location: Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
City: Miami Beach

Project ID: 20-03028-001  
Date: 1/22/2020

### Pedestrians (Crosswalks)

NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave		Indian Creek Dr/A1A/Collins Ave		44th St/Collins Ave		44th St/Collins Ave		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	1	0	0	0	1	0	0	0	2
7:15 AM	0	0	2	1	0	1	0	0	4
7:30 AM	1	0	5	1	7	1	0	0	15
7:45 AM	7	0	1	1	7	0	0	0	16
8:00 AM	1	0	1	0	2	0	0	0	4
8:15 AM	0	0	1	3	5	5	0	0	14
8:30 AM	1	0	4	0	6	1	0	0	12
8:45 AM	6	0	4	1	21	4	0	0	36
<b>TOTAL VOLUMES :</b>	EB 17	WB 0	EB 18	WB 7	NB 49	SB 12	NB 0	SB 0	TOTAL 103
<b>APPROACH %'s :</b>	100.00%	0.00%	72.00%	28.00%	80.33%	19.67%			
<b>PEAK HR :</b>	08:00 AM - 09:00 AM								TOTAL 66
<b>PEAK HR VOL :</b>	8	0	10	4	34	10	0	0	
<b>PEAK HR FACTOR :</b>	0.333		0.625	0.333	0.405	0.500			0.458
	0.333		0.700		0.440				

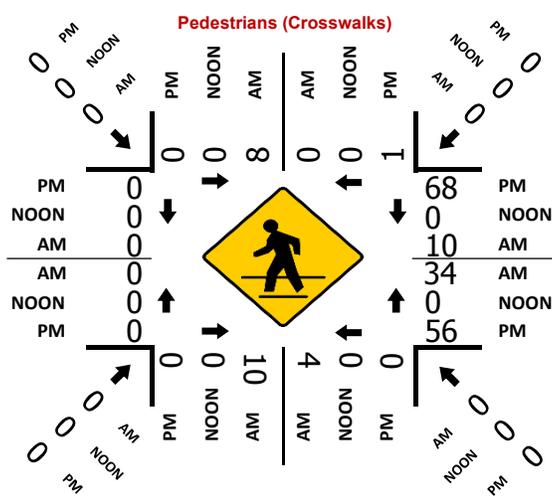
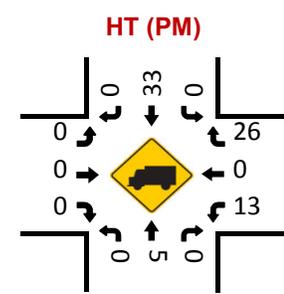
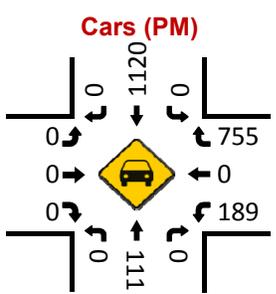
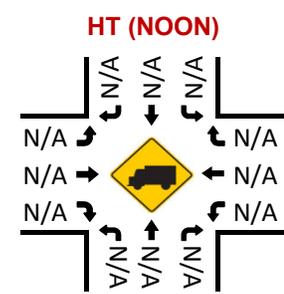
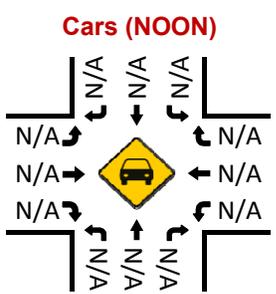
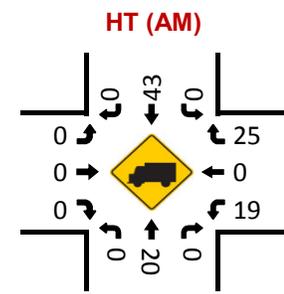
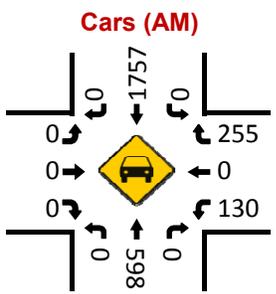
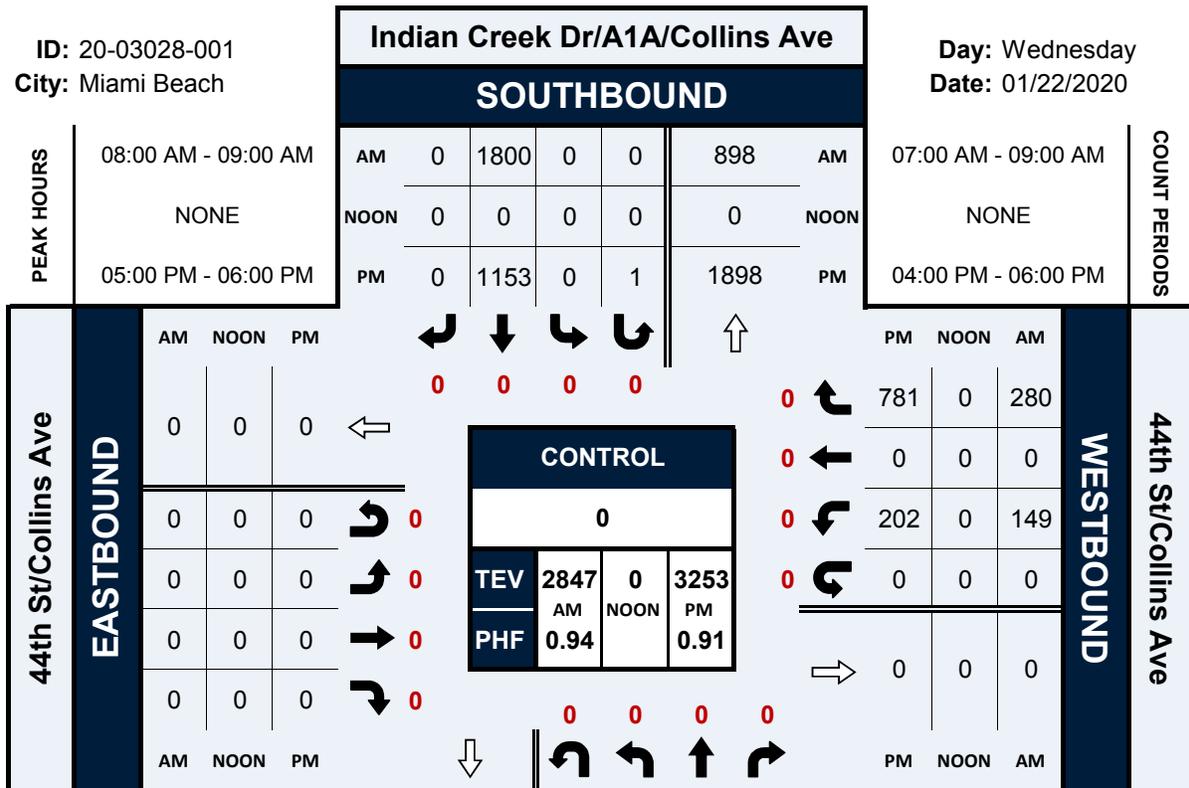
NS/EW Streets:	Indian Creek Dr/A1A/Collins Ave		Indian Creek Dr/A1A/Collins Ave		44th St/Collins Ave		44th St/Collins Ave		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	6	1	10	10	0	0	27
4:15 PM	1	1	0	0	2	19	0	0	23
4:30 PM	1	0	2	2	14	9	0	0	28
4:45 PM	0	0	3	11	16	18	0	0	48
5:00 PM	0	0	0	0	12	9	0	0	21
5:15 PM	0	0	0	0	19	18	0	0	37
5:30 PM	0	1	0	0	13	24	0	0	38
5:45 PM	0	0	0	0	12	17	0	0	29
<b>TOTAL VOLUMES :</b>	EB 2	WB 2	EB 11	WB 14	NB 98	SB 124	NB 0	SB 0	TOTAL 251
<b>APPROACH %'s :</b>	50.00%	50.00%	44.00%	56.00%	44.14%	55.86%			
<b>PEAK HR :</b>	05:00 PM - 06:00 PM								TOTAL 125
<b>PEAK HR VOL :</b>	0	1	0	0	56	68	0	0	
<b>PEAK HR FACTOR :</b>		0.250			0.737	0.708			0.822
	0.250				0.838				

# Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave

## Peak Hour Turning Movement Count

ID: 20-03028-001  
City: Miami Beach

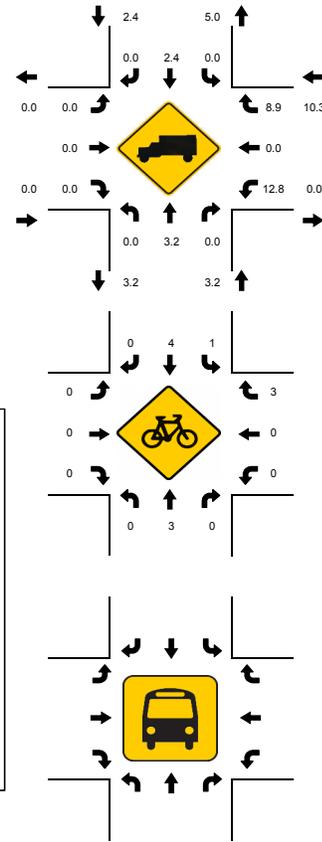
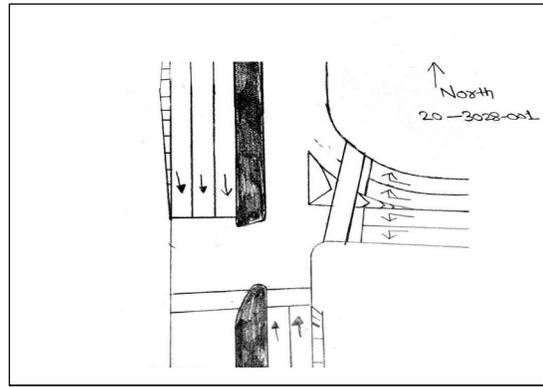
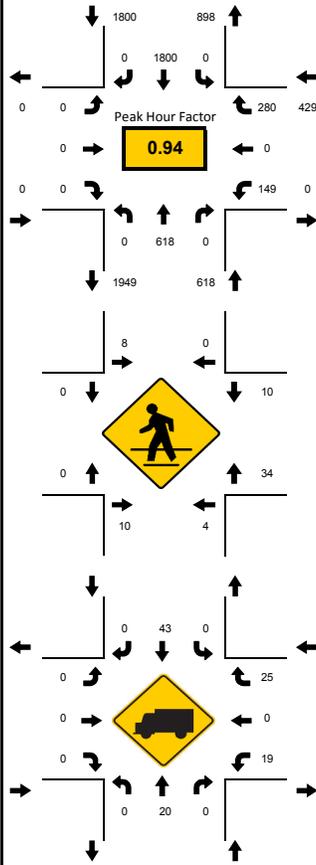
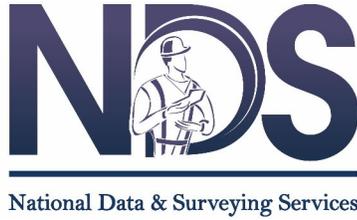
Day: Wednesday  
Date: 01/22/2020



LOCATION: Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
 CITY/STATE: Miami Beach, FL

PROJECT ID: 20-03028-001  
 DATE: 01/22/2020

Peak-Hour: 08:00 AM - 09:00 AM  
 Peak 15-Minute: 08:15 AM - 08:30 AM

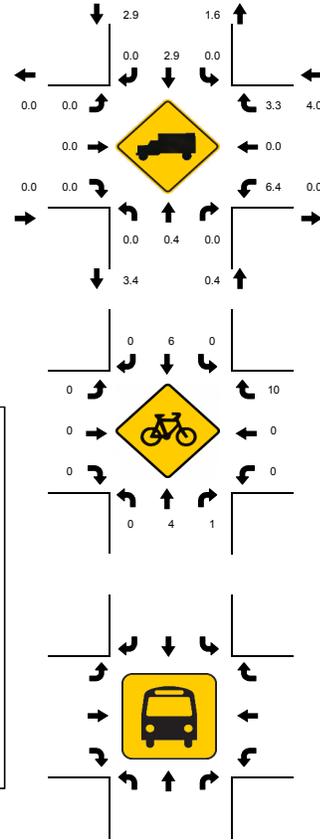
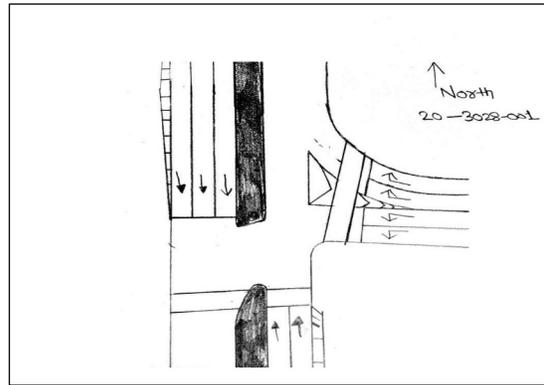
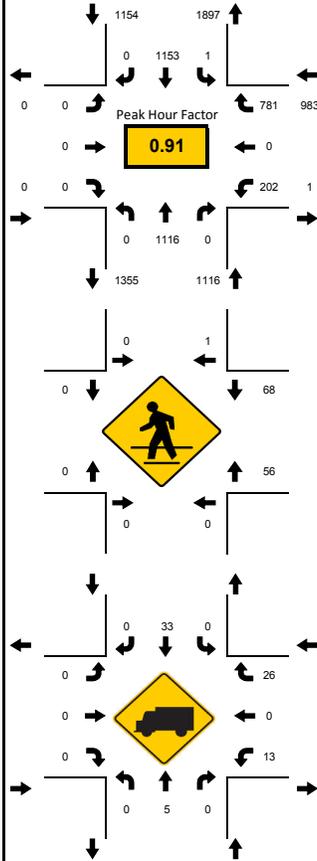
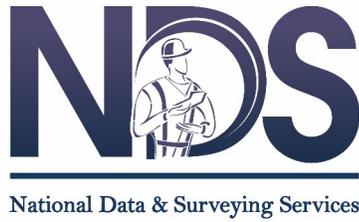


15-Min Count Period Beginning At	Indian Creek Dr/A1A/Collins Ave Northbound					Indian Creek Dr/A1A/Collins Ave Southbound					44th St/Collins Ave Eastbound					44th St/Collins Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	114	0	0		0	404	0	0		0	0	0	0		32	0	53	0		603	2496
07:15 AM	0	172	0	0		0	332	0	0		0	0	0	0		32	0	52	0		588	2591
07:30 AM	0	132	0	0		0	399	0	0		0	0	0	0		30	0	53	0		614	2763
07:45 AM	0	158	0	0		0	423	0	0		0	0	0	0		31	0	79	0		691	2807
08:00 AM	0	138	0	0		0	458	0	0		0	0	0	0		36	0	66	0		698	2847
08:15 AM	0	154	0	0		0	495	0	0		0	0	0	0		35	0	76	0		760	2149
08:30 AM	0	148	0	0		0	407	0	0		0	0	0	0		39	0	64	0		658	1389
08:45 AM	0	178	0	0		0	440	0	0		0	0	0	0		39	0	74	0		731	731
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	712	0	0		0	1980	0	0		0	0	0	0		156	0	304	0		3152	
Heavy Trucks	0	36	0			0	56	0			0	0	0			28	0	32			152	
Pedestrians		20					24					0					100				144	
Bicycles	0	8	0			4	4	0			0	0	0			0	0	4			20	
Railroad																						
Stopped Buses																						

LOCATION: Indian Creek Dr/A1A/Collins Ave & 44th St/Collins Ave  
 CITY/STATE: Miami Beach, FL

PROJECT ID: 20-03028-001  
 DATE: 01/22/2020

Peak-Hour: 05:00 PM - 06:00 PM  
 Peak 15-Minute: 05:30 PM - 05:45 PM



15-Min Count Period Beginning At	Indian Creek Dr/A1A/Collins Ave Northbound					Indian Creek Dr/A1A/Collins Ave Southbound					44th St/Collins Ave Eastbound					44th St/Collins Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	219	0	0		0	332	0	0		0	0	0	0		53	0	188	0		792	3109
04:15 PM	0	247	0	0		0	273	0	0		0	0	0	0		48	0	167	0		735	3143
04:30 PM	0	219	0	1		0	345	0	0		0	0	0	0		65	0	188	0		818	3148
04:45 PM	0	258	0	0		0	288	0	0		0	0	0	0		52	0	166	0		764	3225
05:00 PM	0	258	0	0		0	289	0	0		0	0	0	0		60	0	219	0		826	3253
05:15 PM	0	278	0	0		0	263	0	1		0	0	0	0		40	0	158	0		740	2427
05:30 PM	0	292	0	0		0	330	0	0		0	0	0	0		61	0	212	0		895	1687
05:45 PM	0	288	0	0		0	271	0	0		0	0	0	0		41	0	192	0		792	792
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	1168	0	0		0	1320	0	4		0	0	0	0		244	0	876	0		3612	
Heavy Trucks	0	12	0			0	40	0			0	0	0			20	0	40			112	
Pedestrians	0					4					0					148					152	
Bicycles	0	16	4			0	12	0			0	0	0			0	0	24			56	
Railroad																						
Stopped Buses																						



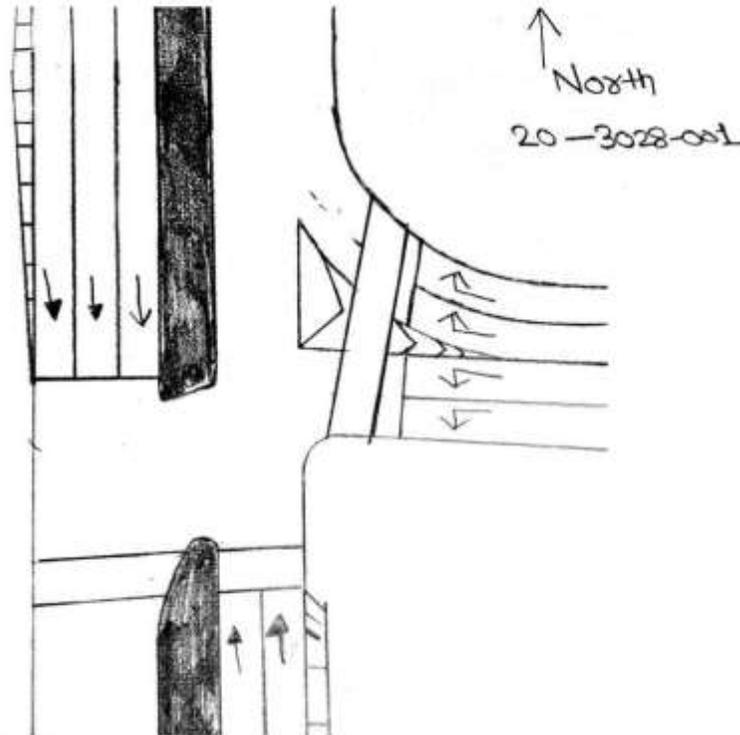
N/S Street: **Indian Creek Dr/A1A/Collins Ave**

Speed: **35 MPH**

Site Code: **20-3028-001**  
 Date: **01/22/2020**  
 Weather: **Sunny**  
 City: **Miami Beach**  
 County: **Miami - Dade**  
 Count Times: **07:00 - 09:00**  
**16:00 - 18:00**  
 Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
ST	01:25	01:25	01:25
NT	00:25	00:25	00:25
WL	00:30	00:31	00:29



E/W Street: **44th St/Collins Ave**

Speed: **15 MPH**

# Signal Timings

## TOD Schedule Report

for 2679: Collins Av&Indian Creek Dr&44 St

Print Date:  
9/24/2019

Print Time:  
4:55 PM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
2679	Collins Av&Indian Creek Dr&44 St	DOW-3		[19] WKND-MORN	140	87	N/A	1	Max 2

### Splits

<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>
-	SBT	-	-	WBR	NBT	WBL	PED
0	83	0	0	9	68	20	19
						N/A	

Active Phase Bank: Phase Bank 1

<u>Phase</u>	<u>Walk</u>			<u>Don't Walk</u>			<u>Min Initial</u>			<u>Veh Ext</u>			<u>Max Limit</u>			<u>Max 2</u>			<u>Yellow</u>	<u>Red</u>
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
1 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 SBT	5	5	5	23	23	23	5	5	5	1	1	1	50	50	50	0	50	50	4	2
3 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 WBR	0	0	0	0	0	0	7	7	7	2.5	-2.5	-2.5	8	8	8	20	20	20	4	2
6 NBT	5	5	5	23	23	23	5	5	5	1	1	1	50	50	50	0	50	50	4	2
7 WBL	0	0	0	0	0	0	7	7	7	2.5	-2.5	-2.5	15	15	15	25	25	25	4	2
8 PED	5	5	5	13	13	13	0	0	0	0	0	0	0	0	0	0	0	0	4	2

Last In Service Date: unknown

<b>Permitted Phases</b>	
<b>12345678</b>	
Default	-2--5678
External Permit 0	-2--5678
External Permit 1	-2--5678
External Permit 2	-2--5678

## TOD Schedule Report

for 2679: Collins Av&Indian Creek Dr&44 St

Print Date:  
9/24/2019

Print Time:  
4:55 PM

Current TOD Schedule	Plan	Cycle	Green Time								Ring Offset	Offset
			1 -	2 SBT	3 -	4 -	5 WBR	6 NBT	7 WBL	8 PED		
1		90	0	41	0	0	7	28	12	19	0	66
2		100	0	47	0	0	13	28	16	19	0	15
3		100	0	47	0	0	13	28	16	19	0	53
4		140	0	87	0	0	11	70	16	19	0	108
5		100	0	47	0	0	13	28	16	19	0	53
6		100	0	47	0	0	13	28	16	19	0	53
8		105	0	52	0	0	7	39	16	19	0	75
9		105	0	48	0	0	14	28	20	19	0	75
10		120	0	63	0	0	9	48	20	19	0	22
11		140	0	83	0	0	12	65	20	19	0	45
12		120	0	63	0	0	22	35	20	19	0	70
13		100	0	48	0	0	13	29	15	19	0	53
14		105	0	53	0	0	18	29	15	19	0	75
15		120	0	68	0	0	18	44	15	19	0	70
16		100	0	48	0	0	14	28	15	19	0	30
17		100	0	48	0	0	14	28	15	19	0	61
18		140	0	83	0	0	9	68	20	19	0	131
19		140	0	83	0	0	9	68	20	19	0	87
20		120	0	68	0	0	14	48	15	19	0	22
21		120	0	68	0	0	14	48	15	19	0	22
22		90	0	41	0	0	7	28	12	19	0	66
23		90	0	41	0	0	7	28	12	19	0	66

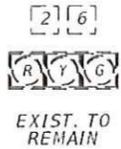
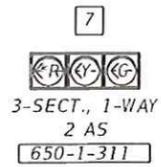
Local TOD Schedule		
Time	Plan	DOW
0000	1	Su S
0000	2	M T W Th F
0700	18	M T W Th F
0930	2	M T W Th F
1000	2	Su S
1400	19	M T W Th F
2000	1	Su S
2200	2	M T W Th F

Current Time of Day Function			
Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-----	Su M T W Th F S
0000	TOD LOCAL MULTIFU	----4---	Su M T W Th F S
0500	TOD LOCAL MULTIFU	-----	Su M T W Th F S

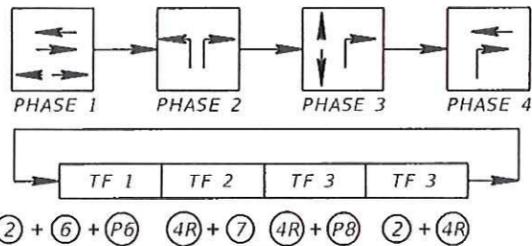
Local Time of Day Function			
Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-----	Su M T W Th F S
0000	TOD LOCAL MULTIFUNCT	----4---	Su M T W Th F S
0500	TOD LOCAL MULTIFUNCT	-----	Su M T W Th F S

* Settings
Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

**SIGNAL HEAD DETAILS**



**S.O.P.**



**SIGNAL OPERATION**

1. MAJOR STREET: SR-A1A/COLLINS AVE./ INDIAN CREEK DR. MINOR STREET: 44TH ST.
2. S.O.P. AS SHOWN
3. PHASE 1 IS RECALL AND PHASE 2 IS ACTUATED

**NOTES**

1. SIGNAL TIMING TO BE PROVIDED BY MIAMI-DADE COUNTY PUBLIC WORKS & WASTE MANAGEMENT, TRAFFIC SIGNALS & SIGNS DIVISION.
2. DIMENSIONS FOR PROPOSED TRAFFIC LOOPS SHALL BE 6' X 30'.

**PEDESTRIAN SIGNAL HEAD DETAILS**

**SIGN DETAILS**

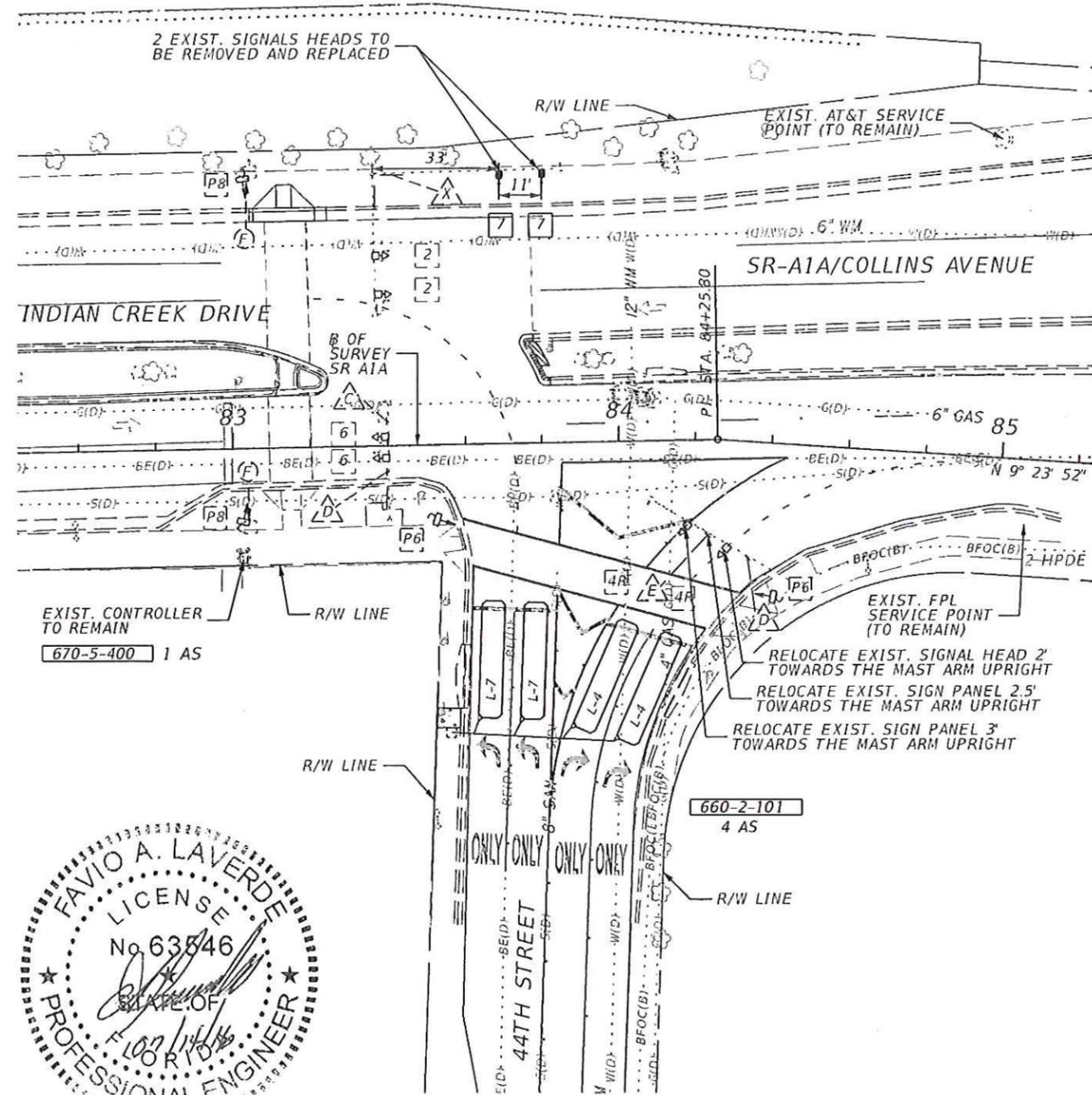
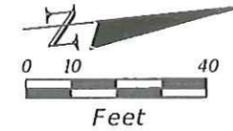
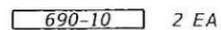


**UNDER POWER CORP.**  
7900 NW 60 Street  
Doral, FL 33166

DETECTORS FOR LOOPS				
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST. DETS.	DELAY TIME (SEC)
L-4	2		1	
L-7	2		1	

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

**REMOVAL ITEMS:**



SR-A1A/COLLINS AVENUE/INDIAN CREEK DR. & 44th STREET  
ID. No. 2679

REVISIONS		DATE		DESCRIPTION	
DATE	DESCRIPTION	DATE	DESCRIPTION		

TRACE CONSULTANTS, INC. 12485 SW 137 AVENUE, SUITE 207 MIAMI, FLORIDA 33186 TEL. (305) 281-1195 C.A. NO. 29942 ENGINEER OF RECORD: FAVIO LAVERDE, P.E. NO. 63546			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	<b>SIGNALIZATION PLAN</b>		
A1A	MIAMI-DADE	250629-3-32-01			
			SHEET NO.		
			6		

# SIGNAL OPERATING PLAN



Direction	SR	NB	WB		Ped Heads			Movements/Display/Actuation	
Timing Phases	Head No.	2	6	4L	4R	P6	PB		
<b>2+6</b> N/S COLLINS AV RECALL	Dwell	G	G	←R	R	W/F	DW		
	C l e a r t o	7	Y	Y	←R	R	DW		DW
		8	Y	Y	←R	R	DW		DW
<b>7</b> WBLT 44 ST ACTUATED	Dwell	R	R	←/←	→	DW	DW		
	C l e a r t o	8	R	R	←/←	→	DW		DW
		2+5	R	R	←/←	→	DW		DW
<b>P8</b> PED TO CROSS E/W ACTUATED	Dwell	R	R	←R	→	DW	W/F		
	C l e a r t o	2+6	R	R	←R	→	DW		DW
<b>2+5</b> WB RT 44 ST ACTUATED	Dwell	G	R	←R	→	DW	DW		
	C l e a r t o	2+6	G	R	←R	→	DW		DW
(Empty)	Dwell							(Empty)	
	C l e a r t o								
(Empty)	Dwell							(Empty)	
	C l e a r t o								

Flashing Operation

FY FY F←R FR

Page 1 of 1

## Miami-Dade County Public Works Department

Drawn	Date			
H. FRANCILLON	4/4/02	COLLINS AV / INDIAN CREEK DR & 44 ST		
Checked	Date	Placed in Service	Phasing No.	Asset Number
		H. HERNANDEZ	4/4/02	Date 4/5/02 By MASTEC

# **FDOT Adjustment Factors**

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: COUNTY  
 CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.98

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

\* PEAK SEASON

28-FEB-2019 15:24:23

830UPD

6\_8700\_PKSEASON.TXT

# Historical Growth

## Fontainebleau Hotel Ballroom & Parking Garage

### *Background Growth Rate*

19185

Station	Location	2014	2015	2016	2017	2018
0011	SR A1A/ Collins Ave, 200' S of 4700 Blk	36,500	44,000	40,500	40,000	39,000
2646	Indian Creek Dr. 200' South of 38 Street	19,000	16,000	16,000	14,000	15,000
5171	200' N 35 St (Miami Beach)	12,500	15,000	13,000	12,000	14,000
5388	SR 112/Arthur Godfrey Rd, 200' W Indian Creek Dr	34,000	39,000	36,000	41,000	34,000
<b>Total</b>		<b>102,000</b>	<b>114,000</b>	<b>105,500</b>	<b>107,000</b>	<b>102,000</b>
<b>Yearly Growth</b>			<b>11.8%</b>	<b>-7.5%</b>	<b>1.4%</b>	<b>-4.7%</b>
<b><i>Growth Trend</i></b>						<b><i>0.3%</i></b>

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0011 - SR A1A/COLLINS AVE, 200' S OF 4700 BLK

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	39000	C	N 19500		S 19500	9.00	54.30	5.50
2017	40000	C	N 20000		S 20000	9.00	55.00	5.30
2016	40500	C	N 21500		S 19000	9.00	54.50	2.80
2015	44000	C	N 20500		S 23500	9.00	54.70	5.20
2014	36500	C	N 15500		S 21000	9.00	54.50	6.10
2013	35500	C	N 16000		S 19500	9.00	52.40	8.30
2012	45000	C	N 23000		S 22000	9.00	55.70	3.70
2011	38500	C	N 19000		S 19500	9.00	55.10	3.30
2010	36500	C	N 18000		S 18500	8.98	54.08	3.30
2009	32500	C	N 16000		S 16500	8.99	53.24	3.30
2008	34000	C	N 17000		S 17000	9.09	55.75	3.60
2007	35000	C	N 17500		S 17500	8.01	54.34	3.00
2006	34500	C	N 17500		S 17000	7.97	54.22	1.70
2005	44000	C	N 22000		S 22000	8.80	53.80	5.90
2004	45000	C	N 24000		S 21000	9.00	53.30	5.90
2003	37500	C	N 18500		S 19000	8.80	53.40	4.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 2646 - INDIAN CREEK DR. 200' SOUTH OF 38 STREET

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	15000 C	S 15000	0	9.00	99.90	5.60
2017	14000 C	S 14000	0	9.00	99.90	5.30
2016	16000 C	S 16000	0	9.00	99.90	7.80
2015	16000 C	S 16000	0	9.00	99.90	4.60
2014	19000 C	S 19000	0	9.00	99.90	5.10
2013	16000 C	S 16000	0	9.00	99.90	6.10
2012	15000 C	S 15000	0	9.00	99.90	8.40
2011	10500 C	S 10500	0	9.00	99.90	7.50
2010	12000 C	S 12000	0	8.98	99.99	8.80
2009	14000 C	S 14000	0	8.99	99.99	8.40
2008	13500 C	S 13500	0	9.09	99.99	5.30
2007	16500 C	S 16500	0	8.01	99.99	4.90
2006	12500 C	S 12500	B 0	7.97	99.99	2.20
2005	25500 F	S	0	8.80	99.90	5.50
2004	25500 C	S 25500	0	9.00	99.90	8.20
2003	18500 C	S 18500	0	8.80	99.90	4.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5171 - 200' N OF 35 ST. (MIAMI BEACH)

YEAR	AADT		DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	14000	C	N 14000	0	9.00	99.90	5.60
2017	12000	C	N 12000	0	9.00	99.90	5.30
2016	13000	C	N 13000	0	9.00	99.90	7.80
2015	15000	C	N 15000	0	9.00	99.90	4.60
2014	12500	C	N 12500	0	9.00	99.90	5.10
2013	14000	C	N 14000	0	9.00	99.90	6.10
2012	13000	C	N 13000	0	9.00	99.90	8.40
2011	12500	C	N 12500	0	9.00	99.90	7.50
2010	10500	C	N 10500	0	8.98	99.99	8.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2018 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5388 - SR 112/ARTHUR GODFREY RD, 200' W INDIAN CREEK DR

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	34000	C	E 16500		W 17500	9.00	54.30	4.50
2017	41000	C	E 18000		W 23000	9.00	55.00	4.00
2016	36000	C	E 18500		W 17500	9.00	54.50	3.30
2015	39000	C	E 19000		W 20000	9.00	54.70	4.40
2014	34000	C	E 17000		W 17000	9.00	54.50	4.40
2013	41000	C	E 20500		W 20500	9.00	52.40	5.20
2012	42500	C	E 23000		W 19500	9.00	55.70	4.90
2011	44000	C	E 23000		W 21000	9.00	55.10	5.00
2010	38500	C	E 20500		W 18000	8.98	54.08	6.20
2009	37500	C	E 19000		W 18500	8.99	53.24	6.00
2008	36500	C	E 19000		W 17500	9.09	55.75	5.90
2007	39000	C	E 22000		W 17000	8.36	54.73	5.70
2006	36500	C	E 21000		W 15500	8.70	56.15	13.70
2005	32000	C	E 17000		W 15000	8.50	53.00	5.50
2004	34500	C	E 18000		W 16500	8.70	54.00	7.00
2003	38500	C	E 20500		W 18000	8.50	53.40	4.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

**LRTP / TIP**

# SR A1A/COLLINS AVE SIGNALIZED INTERSECTION LIGHTING

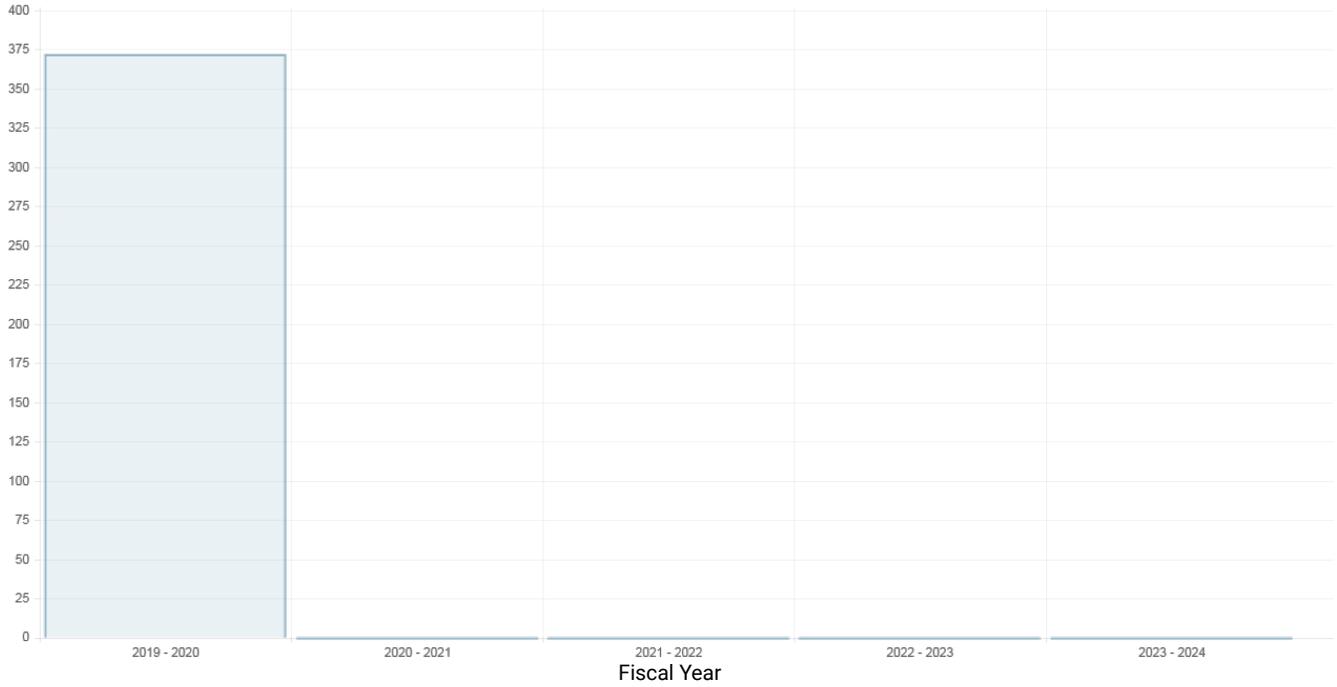
2020 Transportation Improvement Program

**Project Type:** Arterial/Collector Road  
**MPO Project No.:** DT4401701  
**Type of Work:** LIGHTING  
**TIP Year:** 2020  
**Construction Year:** 2020  
**From:** FROM 18 ST  
**To:** TO 65TH ST  
**Agency:** FL Dept. of Transportation  
**Management Agency:** FDOT  
**Agency Project No:** 4401701  
**Status:**  
**Contact Person:**  
**Contact Email:**  
**Contact Phone:**  
**Description:**

### Funding Information \$(thousands)

Project Phase	Funding	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024
PRELIMINARY ENGINEERING	DIH	\$10	\$0	\$0	\$0	\$0
PRELIMINARY ENGINEERING	DS	\$0	\$0	\$0	\$0	\$0
CONSTRUCTION	ACSS	\$10	\$0	\$0	\$0	\$0
CONSTRUCTION	SA	\$5	\$0	\$0	\$0	\$0
CONSTRUCTION	DIH	\$16	\$0	\$0	\$0	\$0
PRELIMINARY ENGINEERING	HSP	\$0	\$0	\$0	\$0	\$0
CONSTRUCTION	ACSA	\$27	\$0	\$0	\$0	\$0
CONSTRUCTION	ACSS	\$304	\$0	\$0	\$0	\$0

Funding Chart \$(thousands)



**ATTACHMENT C**  
**Capacity Analysis Worksheets**

**Existing**

HCM Signalized Intersection Capacity Analysis  
 1: Indian Creek Drive & 44th Street

19185 Existing AM  
 02/13/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	155	291	643	0	0	1872
Future Volume (vph)	155	291	643	0	0	1872
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.88	0.95			0.91
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	3539			5085
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	3539			5085
Peak-hour factor, PHF	0.94	0.94	1.00	0.94	0.94	0.94
Adj. Flow (vph)	165	310	643	0	0	1991
RTOR Reduction (vph)	0	269	0	0	0	0
Lane Group Flow (vph)	165	41	643	0	0	1991
Confl. Peds. (#/hr)	14					
Turn Type	Prot	custom	NA			NA
Protected Phases	7	5 7	6			2
Permitted Phases						
Actuated Green, G (s)	11.6	22.6	105.4			118.4
Effective Green, g (s)	11.6	18.6	105.4			118.4
Actuated g/C Ratio	0.08	0.13	0.75			0.85
Clearance Time (s)	4.0		6.0			6.0
Vehicle Extension (s)	2.5		1.0			1.0
Lane Grp Cap (vph)	284	370	2664			4300
v/s Ratio Prot	c0.05	0.01	0.18			c0.39
v/s Ratio Perm						
v/c Ratio	0.58	0.11	0.24			0.46
Uniform Delay, d1	61.9	53.4	5.2			2.7
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	2.5	0.1	0.2			0.4
Delay (s)	64.4	53.5	5.4			3.1
Level of Service	E	D	A			A
Approach Delay (s)	57.3		5.4			3.1
Approach LOS	E		A			A
<b>Intersection Summary</b>						
HCM 2000 Control Delay			11.9		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.52			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	22.0
Intersection Capacity Utilization			50.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Timings  
1: Indian Creek Drive & 44th Street

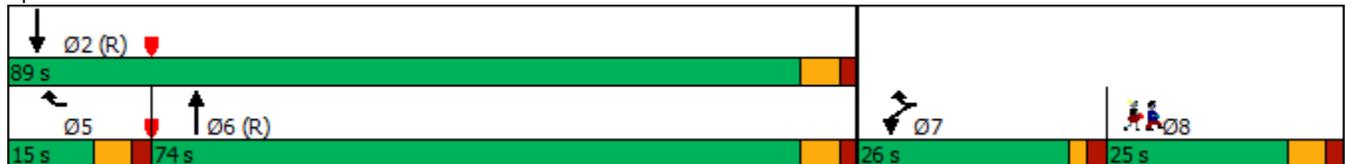
19185 Existing AM  
02/13/2020

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5	Ø8
Lane Configurations								
Traffic Volume (vph)	155	291	643	0	0	1872		
Future Volume (vph)	155	291	643	0	0	1872		
Confl. Peds. (#/hr)	14							
Confl. Bikes (#/hr)								
Peak Hour Factor	0.94	0.94	1.00	0.94	0.94	0.94		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%		0%		0%			
Shared Lane Traffic (%)								
Turn Type	Prot	custom	NA		NA			
Protected Phases	7	5 7	6			2	5	8
Permitted Phases								
Detector Phase	7	5 7	6			2		
Switch Phase								
Minimum Initial (s)	7.0		5.0			5.0	7.0	1.0
Minimum Split (s)	24.0		34.0			34.0	13.0	25.0
Total Split (s)	26.0		74.0			89.0	15.0	25.0
Total Split (%)	18.6%		52.9%			63.6%	11%	18%
Yellow Time (s)	2.0		4.0			4.0	4.0	4.0
All-Red Time (s)	2.0		2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0			0.0		
Total Lost Time (s)	4.0		6.0			6.0		
Lead/Lag	Lead		Lag				Lead	Lag
Lead-Lag Optimize?	Yes		Yes				Yes	Yes
Recall Mode	None		C-Max				C-Max	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 131 (94%), Referenced to phase 2:SBT and 6:NBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Indian Creek Drive & 44th Street



HCM Signalized Intersection Capacity Analysis  
 1: Indian Creek Drive & 44th Street

19185 Existing PM  
 02/13/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	210	812	1161	0	0	1200
Future Volume (vph)	210	812	1161	0	0	1200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.88	0.95			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	3539			5085
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	3539			5085
Peak-hour factor, PHF	0.94	0.94	1.00	0.94	0.94	0.94
Adj. Flow (vph)	223	864	1161	0	0	1277
RTOR Reduction (vph)	0	368	0	0	0	0
Lane Group Flow (vph)	223	496	1161	0	0	1277
Turn Type	Prot	custom	NA			NA
Protected Phases	7	5 7	6			2
Permitted Phases						
Actuated Green, G (s)	21.1	36.8	91.2			108.9
Effective Green, g (s)	21.1	32.8	91.2			108.9
Actuated g/C Ratio	0.15	0.23	0.65			0.78
Clearance Time (s)	4.0		6.0			6.0
Vehicle Extension (s)	2.5		1.0			1.0
Lane Grp Cap (vph)	517	652	2305			3955
v/s Ratio Prot	0.06	c0.18	c0.33			0.25
v/s Ratio Perm						
v/c Ratio	0.43	0.76	0.50			0.32
Uniform Delay, d1	54.0	50.0	12.7			4.6
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.4	5.0	0.8			0.2
Delay (s)	54.4	55.0	13.4			4.8
Level of Service	D	D	B			A
Approach Delay (s)	54.9		13.4			4.8
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay		23.1	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio		0.60	
Actuated Cycle Length (s)		140.0	Sum of lost time (s) 22.0
Intersection Capacity Utilization		70.5%	ICU Level of Service C
Analysis Period (min)		15	

c Critical Lane Group

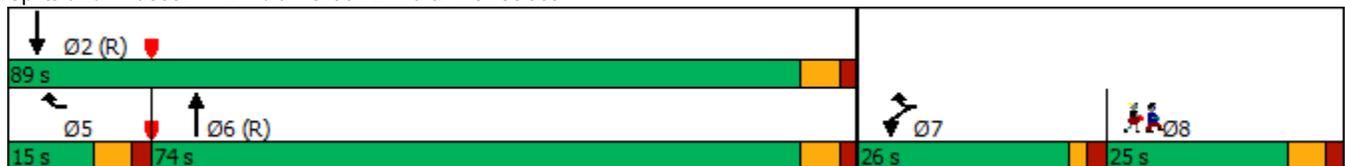
Timings  
1: Indian Creek Drive & 44th Street

19185 Existing PM  
02/13/2020

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5	Ø8
Lane Configurations								
Traffic Volume (vph)	210	812	1161	0	0	1200		
Future Volume (vph)	210	812	1161	0	0	1200		
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.94	0.94	1.00	0.94	0.94	0.94		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%		0%			0%		
Shared Lane Traffic (%)								
Turn Type	Prot	custom	NA			NA		
Protected Phases	7	5 7	6			2	5	8
Permitted Phases								
Detector Phase	7	5 7	6			2		
Switch Phase								
Minimum Initial (s)	7.0		5.0			5.0	7.0	1.0
Minimum Split (s)	24.0		34.0			34.0	13.0	25.0
Total Split (s)	26.0		74.0			89.0	15.0	25.0
Total Split (%)	18.6%		52.9%			63.6%	11%	18%
Yellow Time (s)	2.0		4.0			4.0	4.0	4.0
All-Red Time (s)	2.0		2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0			0.0		
Total Lost Time (s)	4.0		6.0			6.0		
Lead/Lag	Lead		Lag				Lead	Lag
Lead-Lag Optimize?	Yes		Yes				Yes	Yes
Recall Mode	None		C-Max			C-Max	None	None

**Intersection Summary**  
 Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 87 (62%), Referenced to phase 2:SBT and 6:NBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Indian Creek Drive & 44th Street



# **Future with Project**

HCM Signalized Intersection Capacity Analysis  
 1: Indian Creek Drive & 44th Street

19185 Future with Project AM  
 02/17/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 	 	 			  
Traffic Volume (vph)	157	296	634	0	0	1905
Future Volume (vph)	157	296	634	0	0	1905
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.88	0.95			0.91
Frpb, ped/bikes	1.00	1.00	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	3539			5085
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	3539			5085
Peak-hour factor, PHF	0.94	0.94	1.00	0.94	0.94	0.94
Adj. Flow (vph)	167	315	634	0	0	2027
RTOR Reduction (vph)	0	273	0	0	0	0
Lane Group Flow (vph)	167	42	634	0	0	2027
Confl. Peds. (#/hr)	14					
Turn Type	Prot	custom	NA			NA
Protected Phases	7	5 7	6			2
Permitted Phases						
Actuated Green, G (s)	11.7	22.7	105.3			118.3
Effective Green, g (s)	11.7	18.7	105.3			118.3
Actuated g/C Ratio	0.08	0.13	0.75			0.84
Clearance Time (s)	4.0		6.0			6.0
Vehicle Extension (s)	2.5		1.0			1.0
Lane Grp Cap (vph)	286	372	2661			4296
v/s Ratio Prot	c0.05	0.02	0.18			c0.40
v/s Ratio Perm						
v/c Ratio	0.58	0.11	0.24			0.47
Uniform Delay, d1	61.8	53.4	5.2			2.8
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	2.5	0.1	0.2			0.4
Delay (s)	64.3	53.5	5.5			3.2
Level of Service	E	D	A			A
Approach Delay (s)	57.2		5.5			3.2
Approach LOS	E		A			A
<b>Intersection Summary</b>						
HCM 2000 Control Delay			11.9		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.53			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	22.0
Intersection Capacity Utilization			51.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

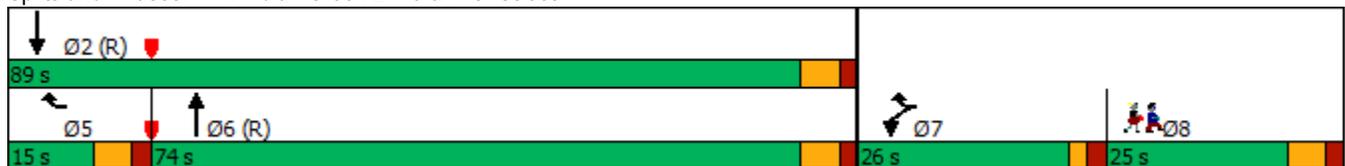
Timings  
1: Indian Creek Drive & 44th Street

	↙ ↘		↑	↗ ↖		↓	Ø5	Ø8
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	↗↘	↗↘	↑↑			↑↑↑		
Traffic Volume (vph)	157	296	634	0	0	1905		
Future Volume (vph)	157	296	634	0	0	1905		
Confl. Peds. (#/hr)	14							
Confl. Bikes (#/hr)								
Peak Hour Factor	0.94	0.94	1.00	0.94	0.94	0.94		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%		0%		0%			
Shared Lane Traffic (%)								
Turn Type	Prot	custom	NA		NA			
Protected Phases	7	5 7	6		2		5	8
Permitted Phases								
Detector Phase	7	5 7	6		2			
Switch Phase								
Minimum Initial (s)	7.0		5.0		5.0		7.0	1.0
Minimum Split (s)	24.0		34.0		34.0		13.0	25.0
Total Split (s)	26.0		74.0		89.0		15.0	25.0
Total Split (%)	18.6%		52.9%		63.6%		11%	18%
Yellow Time (s)	2.0		4.0		4.0		4.0	4.0
All-Red Time (s)	2.0		2.0		2.0		2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0			
Total Lost Time (s)	4.0		6.0		6.0			
Lead/Lag	Lead		Lag				Lead	Lag
Lead-Lag Optimize?	Yes		Yes				Yes	Yes
Recall Mode	None		C-Max		C-Max		None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 131 (94%), Referenced to phase 2:SBT and 6:NBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Indian Creek Drive & 44th Street



HCM Signalized Intersection Capacity Analysis  
 1: Indian Creek Drive & 44th Street

19185 Future with Project PM  
 02/17/2020

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	231	835	1172	0	0	1198
Future Volume (vph)	231	835	1172	0	0	1198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0			6.0
Lane Util. Factor	0.97	0.88	0.95			0.91
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3433	2787	3539			5085
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3433	2787	3539			5085
Peak-hour factor, PHF	0.94	0.94	1.00	0.94	0.94	0.94
Adj. Flow (vph)	246	888	1172	0	0	1274
RTOR Reduction (vph)	0	358	0	0	0	0
Lane Group Flow (vph)	246	530	1172	0	0	1274
Turn Type	Prot	custom	NA			NA
Protected Phases	7	5 7	6			2
Permitted Phases						
Actuated Green, G (s)	21.7	39.1	88.9			108.3
Effective Green, g (s)	21.7	35.1	88.9			108.3
Actuated g/C Ratio	0.15	0.25	0.64			0.77
Clearance Time (s)	4.0		6.0			6.0
Vehicle Extension (s)	2.5		1.0			1.0
Lane Grp Cap (vph)	532	698	2247			3933
v/s Ratio Prot	0.07	c0.19	c0.33			0.25
v/s Ratio Perm						
v/c Ratio	0.46	0.76	0.52			0.32
Uniform Delay, d1	53.8	48.5	13.9			4.8
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	0.5	4.5	0.9			0.2
Delay (s)	54.3	53.1	14.8			5.0
Level of Service	D	D	B			A
Approach Delay (s)	53.3		14.8			5.0
Approach LOS	D		B			A

Intersection Summary			
HCM 2000 Control Delay		23.5	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio		0.62	
Actuated Cycle Length (s)		140.0	Sum of lost time (s) 22.0
Intersection Capacity Utilization		71.6%	ICU Level of Service C
Analysis Period (min)		15	

c Critical Lane Group

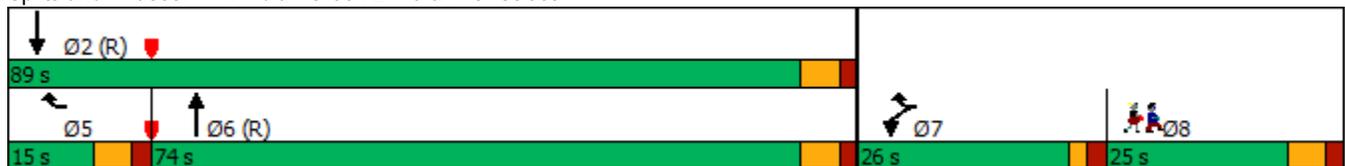
Timings  
1: Indian Creek Drive & 44th Street

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø5	Ø8
Lane Configurations								
Traffic Volume (vph)	231	835	1172	0	0	1198		
Future Volume (vph)	231	835	1172	0	0	1198		
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.94	0.94	1.00	0.94	0.94	0.94		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)	0%		0%			0%		
Shared Lane Traffic (%)								
Turn Type	Prot	custom	NA			NA		
Protected Phases	7	5 7	6			2	5	8
Permitted Phases								
Detector Phase	7	5 7	6			2		
Switch Phase								
Minimum Initial (s)	7.0		5.0			5.0	7.0	1.0
Minimum Split (s)	24.0		34.0			34.0	13.0	25.0
Total Split (s)	26.0		74.0			89.0	15.0	25.0
Total Split (%)	18.6%		52.9%			63.6%	11%	18%
Yellow Time (s)	2.0		4.0			4.0	4.0	4.0
All-Red Time (s)	2.0		2.0			2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0			0.0		
Total Lost Time (s)	4.0		6.0			6.0		
Lead/Lag	Lead		Lag				Lead	Lag
Lead-Lag Optimize?	Yes		Yes				Yes	Yes
Recall Mode	None		C-Max			C-Max	None	None

Intersection Summary

Cycle Length: 140  
 Actuated Cycle Length: 140  
 Offset: 87 (62%), Referenced to phase 2:SBT and 6:NBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated

Splits and Phases: 1: Indian Creek Drive & 44th Street



# **ATTACHMENT D**

## **Trip Generation**

Glimmer Usage Report for 2018

Function Room	Start Date	Event Name	Gtd Attn.	Event Classification
Glimmer Ballroom	01/04/18	Textron Global Leadership Meeting	325	Plated Dinner
Glimmer Ballroom	01/05/18	Textron Global Leadership Meeting	300	General Session
Glimmer Ballroom	01/09/18	2018 WinField United Ultimate Field Trip	1200	Lunch Buffet
Glimmer Ballroom	01/10/18	2018 WinField United Ultimate Field Trip	1200	Lunch Buffet
Glimmer Ballroom	01/11/18	2018 WinField United Ultimate Field Trip	1150	Lunch Buffet
Glimmer Ballroom	01/12/18	2018 WinField United Ultimate Field Trip	1000	Breakfast Buffet
Glimmer Ballroom	01/17/18	NATPE Market & Conference 2018	350	General Session
Glimmer Ballroom	01/26/18	2018 WinField United Catalyst Conference	400	Reception
Glimmer Ballroom	02/01/18	Context Summits Miami 2018	1200	Lunch Buffet
Glimmer Ballroom	02/02/18	Context Summits Miami 2018	850	Breakfast Buffet
Glimmer Ballroom	02/03/18	USGA 2018 Annual Meeting	430	Plated Dinner
Glimmer Ballroom	02/09/18	Aptiv Retreat	215	General Session
Glimmer Ballroom	02/21/18	AppDynamics 2018 SKO	775	Lunch Buffet
Glimmer Ballroom	02/23/18	2018 McDermott Partners' Meeting	555	Plated Lunch
Glimmer Ballroom	02/27/18	Staffing Industry Analysts Executive Forum	1000	General Session
Glimmer Ballroom	02/28/18	Staffing Industry Analysts Executive Forum	1000	General Session
Glimmer Ballroom	03/01/18	Staffing Industry Analysts Executive Forum	700	General Session
Glimmer Ballroom	03/03/18	2018 LoanDepot	260	Meeting/Session
Glimmer Ballroom	03/05/18	McDermott Will & Emery 2018 HPE Symposium	400	Meeting
Glimmer Ballroom	03/06/18	McDermott Will & Emery 2018 HPE Symposium	400	Meeting
Glimmer Ballroom	03/08/18	Credit Suisse Equity Trading Forum 2018	375	Plated Dinner
Glimmer Ballroom	03/09/18	Credit Suisse Equity Trading Forum 2018	315	General Session
Glimmer Ballroom	03/16/18	Big Smoke	700	General Session
Glimmer Ballroom	03/26/18	Spring Alliance POA	375	General Session
Glimmer Ballroom	04/03/18	VOLVO - Customer Service Program	610	Lunch Buffet
Glimmer Ballroom	04/04/18	VOLVO - Customer Service Program	685	Breakfast Buffet
Glimmer Ballroom	04/17/18	FICO World 2018	1100	Lunch Buffet
Glimmer Ballroom	04/18/18	FICO World 2018	1100	Lunch Buffet
Glimmer Ballroom	04/19/18	FICO World 2018	900	Continental Breakfast
Glimmer Ballroom	04/21/18	The Cushman School Gala	375	Plated Dinner
Glimmer Ballroom	04/28/18	Performance Excellence Awards	750	Cocktail Reception
Glimmer Ballroom	04/30/18	LAC	180	Lunch Buffet
Glimmer Ballroom	05/01/18	2018 Global Sales Conference	640	Lunch Buffet
Glimmer Ballroom	05/02/18	2018 Global Sales Conference	660	Lunch Buffet
Glimmer Ballroom	05/10/18	International Factoring Association	600	Meeting
Glimmer Ballroom	05/11/18	International Factoring Association	400	Meeting
Glimmer Ballroom	05/22/18	2018 Chairman's Circle	570	Heavy Reception
Glimmer Ballroom	05/23/18	2018 Chairman's Circle	570	Lunch Buffet
Glimmer Ballroom	05/24/18	2018 Chairman's Circle	525	Lunch Buffet
Glimmer Ballroom	06/19/18	Vista Consulting Group - 2018 BPSS Product & Tech Leadership	400	General Session
Glimmer Ballroom	06/20/18	Vista Consulting Group - 2018 BPSS Product & Tech Leadership	375	General Session
Glimmer Ballroom	06/21/18	Jackson Family Wines Kickoff	290	General Session
Glimmer Ballroom	06/25/18	CFMA 2018 Annual Conference	950	Plated Lunch
Glimmer Ballroom	06/26/18	CFMA 2018 Annual Conference	950	General Session
Glimmer Ballroom	06/27/18	CFMA 2018 Annual Conference	900	General Session
Glimmer Ballroom	06/28/18	Irie Weekend	400	Plated Dinner
Glimmer Ballroom	06/30/18	National Association of Chapter 13 Trustees	500	Heavy Reception
Glimmer Ballroom	07/15/18	South Atlantic & Gulf District ILA	650	Heavy Reception
Glimmer Ballroom	07/16/18	South Atlantic & Gulf District ILA	600	Beverage Service
Glimmer Ballroom	07/17/18	South Atlantic & Gulf District ILA	600	General Session
Glimmer Ballroom	07/18/18	South Atlantic & Gulf District ILA	1000	Plated Dinner
Glimmer Ballroom	07/19/18	South Atlantic & Gulf District ILA	600	Beverage Service
Glimmer Ballroom	07/24/18	ONC Regional Mtg East/Central	200	General Session
Glimmer Ballroom	07/25/18	ONC Regional Mtg East/Central	200	General Session
Glimmer Ballroom	07/26/18	ONC Regional Mtg East/Central	200	General Session
Glimmer Ballroom	08/04/18	GGT 2018	300	Beverage Service
Glimmer Ballroom	09/18/18	CrowdStrike 2018 FalCon	700	Lunch Buffet
Glimmer Ballroom	09/19/18	CrowdStrike 2018 FalCon	650	Lunch Buffet
Glimmer Ballroom	10/01/18	TeamMate User Forum 2018	740	Heavy Reception
Glimmer Ballroom	10/02/18	TeamMate User Forum 2018	675	Lunch Buffet
Glimmer Ballroom	10/03/18	TeamMate User Forum 2018	650	Breakfast Buffet
Glimmer Ballroom	10/04/18	Cushman & Wakefield 2018 TAG Conference	300	General Session
Glimmer Ballroom	10/08/18	TITLE Boxing Club 2018 Convention	320	General Session
Glimmer Ballroom	10/09/18	TITLE Boxing Club 2018 Convention	320	General Session
Glimmer Ballroom	10/16/18	CITI National Expo 2018	300	General Session
Glimmer Ballroom	10/17/18	CITI National Expo 2018	300	General Session
Glimmer Ballroom	10/18/18	CITI National Expo 2018	300	General Session
Glimmer Ballroom	10/23/18	CCH Connections	925	Lunch Buffet
Glimmer Ballroom	10/24/18	CCH Connections	900	Breakfast Buffet
Glimmer Ballroom	10/25/18	Bauer World 2018	425	Heavy Reception
Glimmer Ballroom	10/29/18	Guy Carpenter	250	Continuous Beverage Service

Glimmer Usage Report for 2018

Function Room	Start Date	Event Name	Gtd Attn.	Event Classification	
Glimmer Ballroom	10/30/18	Guy Carpenter	250	Breakfast Buffet	
Glimmer Ballroom	11/01/18	SPECTRUM 2018	240	General Session	
Glimmer Ballroom	11/02/18	SPECTRUM 2018	240	General Session	
Glimmer Ballroom	11/03/18	SPECTRUM 2018	240	General Session	
Glimmer Ballroom	11/04/18	SPECTRUM 2018	240	General Session	
Glimmer Ballroom	11/06/18	Hewlett Packard Enterprise FastStart 2019	381	Beverage Service	
Glimmer Ballroom	11/07/18	Hewlett Packard Enterprise FastStart 2019	381	General Session	
Glimmer Ballroom	11/09/18	2018 Phonak Marvel Launch Event	500	Lunch Buffet	
Glimmer Ballroom	11/10/18	2018 Phonak Marvel Launch Event	500	Breakfast Buffet	
Glimmer Ballroom	11/12/18	Clinique North America Regional Meeting	160	Reception	
Glimmer Ballroom	11/13/18	Clinique North America Regional Meeting	200	Dinner Buffet	
Glimmer Ballroom	11/14/18	Clinique North America Regional Meeting	200	Breakfast Buffet	
Glimmer Ballroom	11/26/18	Limitless Mastercard LAC Innovation Forum 2018	150	Meeting	
Glimmer Ballroom	12/03/18	Distech Connect 2018	450	Beverage Service	
Glimmer Ballroom	12/04/18	Distech Connect 2018	425	Plated Dinner	
Glimmer Ballroom	12/05/18	Distech Connect 2018	450	General Session	
Glimmer Ballroom	12/07/18	ALTS Capital Publishing, Inc.	215	Meeting	
Glimmer Ballroom	12/10/18	Global Financial Reporting and Valuation Conference 2018	325	General Session	
Glimmer Ballroom	12/11/18	Global Financial Reporting and Valuation Conference 2018	325	General Session	
Glimmer Ballroom	12/14/18	Alcora Corporation Holiday Party	450	Dinner Buffet	
Glimmer Ballroom	12/16/18	2018 IEEE Conference of Decision and Control (CDC)	950	Reception	
Glimmer Ballroom	12/18/18	2018 IEEE Conference of Decision and Control (CDC)	288	Cocktail Reception	
			93	49570	total attendees/year for Glimmer
				533	avg.# attendess/event (93)

Glimmer Ballroom = 18,786 s.f. =

35.2451 s.f. per attendee (per event)

Fontainebleau Banquet Summary 2016 - 2018

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>Total</u>	<u>%</u>
<u>Total Banquet Covers</u>					
Local Events	10,945	7,219	8,324	26,488	3.3%
Group In-House	275,346	218,081	283,586	777,013	96.7%
Total	286,291	225,300	291,910	803,501	100.0%

# FONTAINEBLEAU MIAMI BEACH

## F&B Summary 2018

Time: December

### F&B BY OUTLET

	Month to Date					Year to Date				
	Actual	Budget	Prior Year	Var + (-)	%	Actual	Budget	Prior Year	Var + (-)	%
<b>F&amp;B SUMMARY</b>										
Food Revenue					15.9 %					-7.4 %
Beverage Revenue					9.4 %					-5.3 %
Other F&B Revenue					28.3 %					4.9 %
<b>Total Revenue</b>					13.5 %					-5.6 %
<b>Covers/Checks</b>	<b>180,846</b>	<b>185,859</b>	<b>163,458</b>	<b>-5,013</b>	<b>-2.7 %</b>	<b>2,063,622</b>	<b>2,167,285</b>	<b>1,888,060</b>	<b>-103,663</b>	<b>-4.8 %</b>
Avg. Food Cvr/Chk					19.2 %					-2.7 %
Avg. Beverage Cvr/Chk					12.4 %					-0.5 %
Avg. Total Cvr/Chk					16.6 %					-0.9 %
Cost of Sales - Food					3.8 %					-7.6 %
Cost of Sales - Beverage					6.9 %					-1.4 %
Cost of Sales - Other					-40.6 %					9.9 %
<b>Cost of Sales</b>					3.6 %					-5.1 %
Cost of Food %					-10.5 %					-0.2 %
Cost of Beverage %					-2.3 %					4.1 %
Cost of Other %					-53.7 %					4.7 %
<b>Total Payroll, Taxes &amp; Benefits</b>					<b>22.0 %</b>					<b>-2.3 %</b>
Other Operating Expenses					36.0 %					5.1 %
<b>Total Expenses</b>					<b>22.2 %</b>					<b>-0.5 %</b>
<b>Profit</b>					<b>-3.8 %</b>					<b>-13.8 %</b>
Margin										
<b>StripSteak</b>										
Food Revenue					-16.9 %					-3.0 %
Beverage Revenue					-17.8 %					-10.9 %
Other F&B Revenue					87.8 %					-0.6 %
<b>Total Revenue</b>					<b>-16.3 %</b>					<b>-5.7 %</b>
<b>Covers</b>	<b>6,707</b>	<b>8,500</b>	<b>6,936</b>	<b>-1,793</b>	<b>-21.1 %</b>	<b>73,551</b>	<b>80,003</b>	<b>71,085</b>	<b>-6,452</b>	<b>-8.1 %</b>
Avg. Food Cover					5.3 %					5.5 %
Avg. Beverage Cover					4.2 %					-3.1 %
Avg. Total Cover					6.0 %					2.6 %
Cost of Sales - Food					-15.6 %					-5.4 %
Cost of Sales - Beverage					-12.6 %					-11.7 %
Cost of Sales - Other					-100.0					-23.8 %
<b>Cost of Sales</b>					<b>-15.5 %</b>					<b>-7.2 %</b>
Cost of Food %					1.6 %					-2.5 %
Cost of Beverage %					6.3 %					-0.9 %
Cost of Other %					-100.0					-23.3 %
<b>Total Payroll, Taxes &amp; Benefit</b>					<b>6.9 %</b>					<b>-7.4 %</b>
Other Operating Expenses					5.9 %					1.0 %
<b>Total Expenses</b>					<b>-2.5 %</b>					<b>-5.5 %</b>
<b>Profit</b>					<b>-67.0 %</b>					<b>-6.5 %</b>
Margin										
<b>Hakkasan</b>										
Food Revenue					-4.7 %					-10.4 %
Beverage Revenue					-6.4 %					-10.8 %
Other F&B Revenue					770.7 %					117.3 %
<b>Total Revenue</b>					<b>-4.1 %</b>					<b>-10.4 %</b>
<b>Covers</b>	<b>9,363</b>	<b>9,521</b>	<b>9,116</b>	<b>-158</b>	<b>-1.7 %</b>	<b>90,666</b>	<b>99,402</b>	<b>88,871</b>	<b>-8,736</b>	<b>-8.8 %</b>
Avg. Food Cover					-3.1 %					-1.8 %
Avg. Beverage Cover					-4.8 %					-2.3 %

# FONTAINEBLEAU MIAMI BEACH

## F&B Summary 2018

Time: December

### F&B BY OUTLET

	Month to Date					Year to Date				
	Actual	Budget	Prior Year	Var + (-)	%	Actual	Budget	Prior Year	Var + (-)	%
<b>Avg. Total Cover</b>					-2.5 %					-1.7 %
Cost of Sales - Food					-8.0 %					-11.5 %
Cost of Sales - Beverage					-13.4 %					-15.3 %
Cost of Sales - Other					0.0 %					0.0 %
<b>Cost of Sales</b>					-9.5 %					-12.5 %
Cost of Food %					-3.5 %					-1.2 %
Cost of Beverage %					-7.5 %					-5.0 %
Cost of Other %					0.0 %					0.0 %
<b>Total Payroll, Taxes &amp; Benefit</b>					9.0 %					-6.3 %
Other Operating Expenses					2.8 %					-5.9 %
<b>Total Expenses</b>					1.7 %					-8.0 %
<b>Profit</b>					-26.8 %					-25.9 %
Margin										
<b>Scarpetta</b>										
Food Revenue					-18.0 %					-20.9 %
Beverage Revenue					-16.6 %					-14.2 %
Other F&B Revenue					668.3 %					143.9 %
<b>Total Revenue</b>					-16.3 %					-17.9 %
<b>Covers</b>	8,151	8,534	7,410	-383	-4.5 %	71,546	78,471	65,460	-6,925	-8.8 %
Avg. Food Cover					-14.1 %					-13.3 %
Avg. Beverage Cover					-12.6 %					-5.9 %
Avg. Total Cover					-12.3 %					-10.0 %
Cost of Sales - Food					-30.2 %					-23.7 %
Cost of Sales - Beverage					-16.6 %					-17.2 %
Cost of Sales - Other					0.0 %					0.0 %
<b>Cost of Sales</b>					-26.3 %					-21.7 %
Cost of Food %					-14.9 %					-3.5 %
Cost of Beverage %					0.0 %					-3.6 %
Cost of Other %					0.0 %					0.0 %
<b>Total Payroll, Taxes &amp; Benefit</b>					-4.2 %					-18.1 %
Other Operating Expenses					-7.7 %					-3.8 %
<b>Total Expenses</b>					-13.2 %					-16.0 %
<b>Profit</b>					-24.4 %					-28.3 %
Margin										
<b>Vida</b>										
<b>Food Revenue</b>					-5.5 %					-13.1 %
Food Revenue - Allowance					18.5 %					-38.8 %
Food Revenue - Breakfast					17.5 %					-7.0 %
Food Revenue - Lunch					-37.4 %					-14.7 %
Food Revenue - Dinner					-4.7 %					-22.5 %
Food Revenue - Late Night					0.0 %					0.0 %
<b>Beverage Revenue</b>					18.4 %					-8.0 %
Beverage Revenue - Cash					0.0 %					0.0 %
Beverage Revenue - Allowan					0.0 %					0.0 %
Beverage Revenue - Beer					3.7 %					-9.8 %
Beverage Revenue - Wine					6.6 %					-11.7 %
Beverage Revenue - Liquor					39.5 %					-2.9 %
Other F&B Revenue										
<b>Total Revenue</b>					-2.6 %					-12.5 %
<b>Covers</b>	23,989	26,153	21,707	(2,164)	-8.3 %	230,086	273,027	235,013	(42,941)	-15.7 %