

## MEMORANDUM

To: Firat Akcay  
City of Miami Beach

From: Adrian K. Dabkowski, P.E., PTOE   
Maddy Hollowed, E.I. 

Date: October 14, 2021

**Subject: Shore Club  
Traffic Assessment**

Kimley-Horn and Associates, Inc. has prepared a traffic assessment for the proposed Shore Club redevelopment located at 1901 Collins Avenue in Miami Beach, Florida. A project location map and conceptual site plan are included in Attachment A-1. Currently, the existing site is occupied by a vacant 333-room hotel, two (2) vacant restaurants with a total of 370 seats, and 12,810 square feet of vacant bar/night club space within three (3) venues including a 7,802 square-foot pool venue, a 2,087 square-foot nightclub, and a 2,921 square-foot bar. The existing development also included 1,850 square feet of specialty retail space which is considered ancillary to the hotel and not expected to generate external site traffic. The proposed redevelopment includes 80 condominium units, a 65-room hotel, two (2) restaurants with a total of 419 seats, and 2,059 square-feet of bar space. All vehicles with the exception of taxi/rideshare vehicles will be valeted.

The traffic assessment is consistent with the requirements of the City of Miami Beach. The approved methodology correspondence detailing the traffic assessment requirements is included in Attachment B-1. The traffic assessment includes trip generation calculations, valet operations analysis, maneuverability analysis, and transportation demand management strategies as part of the traffic assessment, consistent with the approved methodology. The following sections summarize the traffic assessment.

## VALET SERVICE AND OPERATIONS

The redevelopment will be served by the following three (3) valet drop-off/pick-up areas:

- One (1) valet drop-off/pick-up area will be located on-site along Collins Avenue south of 19<sup>th</sup> street at the existing porte-cochere and will serve the hotel, restaurant, and bar land uses. The valet drop-off/pick-up area consists of one (1) valet drop-off/pick-up lane with storage for approximately seven (7) vehicles and one (1) by-pass lane. It is assumed that six (6) spaces will be used for valet operations and one (1) space will be used for taxi/rideshare vehicles. Note that the final location of the proposed off-site valet parking area for the hotel, restaurant, and bar land uses has not been finalized. Therefore, the analysis has been prepared for the typical maximum distance of ¼ mile between the valet area and off-site parking.
- One (1) valet drop-off/pick-up area will be located on 20<sup>th</sup> Street east of Collins Avenue and will serve guests of the residential land use. The valet drop-off/pick-up area consists of one (1) valet drop-off/pick-up lane with storage for approximately two (2) vehicles. It is assumed that one (1) space will be used for valet operations and one (1) space will be used for taxi/rideshare vehicles. The drop-off route consists of vehicles exiting the guest valet drop-off/pick-up area, circling the cul-de-sac at the end of 20<sup>th</sup> Street and making a left turn to enter the proposed on-

site parking garage. The pick-up route consists of vehicles making a right turn to exit the proposed on-site parking garage and entering the valet drop-off/pick-up area.

- One (1) valet drop-off/pick-up area will be located on-site within the proposed parking garage and will serve the residential land use with the exception of guests. The valet drop-off area consists of one (1) valet drop-off lane with storage for approximately three (3) vehicles and an additional 200 feet (approximately 9 vehicles) of stacking is provided on the ramp internal to the parking garage. The pick-up area consists of one (1) valet pick-up lane with storage for approximately two (2) vehicles. Resident drop-off and pick-up operations will occur within the proposed on-site parking garage.

All vehicles with the exception of taxi/rideshare vehicles will be valeted. Attachment C-1 contains graphic illustrations of the proposed valet routes to and from the valet drop-off/pick-up areas.

## TRIP GENERATION

Trip generation calculations for the existing development and the proposed redevelopment were performed using Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition. The trip generation for the existing development was determined using ITE Land Use Code (LUC) 925 (Drinking Place), LUC 931 (Quality Restaurant), and LUC 310 (Hotel). The trip generation for the proposed redevelopment was determined using ITE LUC 925 (Drinking Place), LUC 931 (Quality Restaurant), LUC 222 (Multifamily Housing – High-Rise), and LUC 310 (Hotel). Project trips were estimated for the weekday A.M. and P.M. peak hours.

A multimodal (public transit, bicycle, and pedestrian) factor of 35.2 percent (35.2%) was calculated using Replica mode-split data. Replica is a publicly available data set that considers the US Census, land use regulations, aggregate mobile location, credit transaction data, and real estate transaction data. Additionally, Replica data evaluates all trips that enter and exit the census tract in which the redevelopment is located. Note that to provide a conservative analysis, a multimodal factor of 20.0 percent (20.0%) was applied to the trip generation calculations. It is expected that a portion of residents, employees, guests, and patrons will choose to walk, bike, or use public transit to and from the site.

Internal capture is expected between complementary land uses within the project. Internal capture trips for the project were determined based upon methodology contained in the ITE's *Trip Generation Handbook*, 3<sup>rd</sup> Edition. The expected internal capture rate for the existing development is 0.0 percent (0.0%) during the A.M. peak hour and 6.3 percent (6.3%) during the P.M. peak hour. The expected internal capture rate for the proposed redevelopment is 3.6 percent (3.6%) during the A.M. peak hour and 15.1 percent (15.1%) during the P.M. peak hour.

The project is expected to result in a reduction of 80 net new vehicle trips during the weekday A.M. peak hour and a reduction of 179 net new vehicle trips during the weekday P.M. peak hour. Detailed trip generation calculations are included as Attachment D-1.

Based on data collected at similar sites, the following assumptions were utilized to determine the valet trip generation:

- 57.4 percent (57.4%) of vehicle trips generated by the hotel land use will be valeted as a 42.6 percent (42.6%) taxi/rideshare factor was determined based on actual field observation from the Cadillac Hotel located at 3925 Collins Avenue, Miami Beach, Florida.
- 92.5 percent (92.5%) of A.M. peak hour vehicle trips and 94.3 percent (94.3%) of P.M. peak hour vehicle trips generated by the residential component will be valeted as a 7.5 percent (7.5%) taxi/rideshare factor was determined for the A.M. peak hour and a 5.7 percent (5.7%)

taxi/rideshare factor was determined for the P.M. peak hour. The percentage of residential trips is based on peak period vehicle classification counts collected at the Axis Brickell located at 1111 SW 12<sup>th</sup> Street, Miami, Florida.

Additionally, it was assumed that 90 percent (90%) of trips generated by the residential component are residents and 10 percent (10%) of trips are guests. The valet analysis was prepared for the weekday A.M. and weekday P.M. peak hours. The proposed redevelopment is expected to generate 43 valet trips during the A.M. peak hour, with 18 trips (10 in/8 out) utilizing the hotel, restaurant, and bar valet drop-off/pick-up area, 22 trips (5 in/17 out) utilizing the resident valet drop-off/pick-up area, and three (3) trips (1 in/2 out) utilizing the residential guest valet drop-off/pick-up area. The proposed redevelopment is expected to generate 129 valet trips during the P.M. peak hour, with 106 trips (71 in/35 out) utilizing the hotel, restaurant, and bar valet drop-off/pick-up area, 21 trips (13 in/8 out) utilizing the resident valet drop-off/pick-up area, and two (2) trips (1 in/1 out) utilizing the residential guest valet drop-off/pick-up area. Detailed trip generation calculations, data collected from the Cadillac Hotel, and data collected from the Axis Brickell are included in Attachment D-1.

## VALET OPERATIONS ANALYSIS

The valet queuing operations analysis was performed based on the methodology outlined in ITE's *Transportation and Land Development*, 1988. The analysis was performed to determine if valet operations could accommodate vehicular queues without blocking travel lanes on Collins Avenue and 20<sup>th</sup> Street. Valet operations were analyzed for the number of valet attendants and required vehicle stacking for the project's anticipated valet trip generation.

### Valet Assumptions

The queuing analysis used the multiple-channel waiting line model with Poisson arrivals and exponential service times. The queuing analysis is based on the coefficient of utilization,  $\rho$ , which is the ratio of the average vehicle arrival rate over the average service rate multiplied by the number of channels.

Valet attendants will be stationed at the valet drop-off/pick-up areas. Valet drop-off trip service times were calculated based on the time it would take a valet parking attendant to obtain and park a drop-off vehicle and return to the respective valet drop-off area. Valet pick-up trip service times were calculated based on the time it would take a valet parking attendant to bring a parked vehicle back to a patron at the respective valet pick-up area. Note that the average mechanical-lift processing time was based on the Klaus Model G61 vehicle lift and accounts for the time to park and retrieve vehicles from all the various positions within a mechanical lift system. Further note that mechanical-lift processing time was not included for the hotel, restaurant, and bar valet drop-off/pick-up area as the location for parking has not been finalized. The detailed mechanical-lift processing time analysis is contained in Attachment E-1. The following summarizes the total valet drop-off and pick-up service times. Detailed travel time calculations are also included in Attachment E-1.

### Hotel, Restaurant, and Bar Valet Drop-off/Pick-up Area

The following summarizes the valet drop-off service time:

- Exchange between valet attendant and driver (0.5 minutes)
- Valet attendant drives vehicle from valet drop-off area to off-site parking area (1.0 minute)
- Valet attendant returns to valet station (4.4 minutes)
- **Total service rate: 5.9 minutes**

The following summarizes the valet pick-up service time:

- Valet attendant proceeds to the off-site parking area to retrieve the vehicle (4.4 minutes)
- Valet attendant drives vehicle from off-site parking area to the valet pick-up area (1.0 minute)
- Exchange between valet attendant and driver (0.5 minutes)
- **Total service rate: 5.9 minutes**

### **Residential Guest Valet Drop-off/Pick-up Area**

The following summarizes the valet drop-off service time:

- Exchange between valet attendant and driver (0.5 minutes)
- Valet attendant drives vehicle from valet drop-off area to on-site parking garage (0.7 minutes)
- Valet attendant parks vehicle using mechanical-lift (1.2 minutes)
- Valet attendant returns to valet station (2.8 minutes)
- **Total service rate: 5.2 minutes**

The following summarizes the valet pick-up service time:

- Valet attendant proceeds to the garage to retrieve the vehicle (2.8 minutes)
- Valet attendant retrieves and moves vehicle from mechanical-lift (1.1 minutes)
- Valet attendant drives vehicle from on-site parking garage to the valet pick-up area (0.5 minutes)
- Exchange between valet attendant and driver (0.5 minutes)
- **Total service rate: 4.9 minutes**

### **Resident Valet Drop-off/Pick-up Area**

The following summarizes the valet drop-off service time:

- Exchange between valet attendant and driver (0.5 minutes)
- Valet attendant drives vehicle from valet drop-off area to on-site parking garage (0.3 minutes)
- Valet attendant parks vehicle using mechanical-lift (1.2 minutes)
- Valet attendant returns to valet station (1.2 minutes)
- **Total service rate: 3.2 minutes**

The following summarizes the valet pick-up service time:

- Valet attendant proceeds to the garage to retrieve the vehicle (1.2 minutes)
- Valet attendant retrieves and moves vehicle from mechanical-lift (1.1 minutes)
- Valet attendant drives vehicle from on-site parking garage to the valet pick-up area (0.3 minutes)
- Exchange between valet attendant and driver (0.5 minutes)
- **Total service rate: 3.1 minutes**

If the coefficient of utilization (average service rate/valet attendant service capacity) is greater than one (>1), the calculation methodology does not yield a finite queue length. This result indicates overcapacity conditions for the valet area. The valet attendant service capacity is the number of total trips a valet attendant can make in a one-hour period multiplied by the number of valet attendants.

The analysis determined the required queue storage,  $M$ , which is exceeded  $P$  percent of the time. This analysis seeks to ensure that the queue length does not exceed the storage provided at a level of confidence of 95 percent (95%). Six (6) vehicle drop-off/pick-up spaces are provided for hotel/restaurant/bar valet operations, two (2) vehicle drop-off/pick-up spaces are provided for the

residential guest valet operations, and three (3) vehicle drop-off spaces and two (2) vehicle pick-up spaces are provided for resident valet operations. Note that for resident drop-off additional stacking of 200 feet is provided on the ramp and for vehicle pick-up additional stacking is provided internal to the parking garage.

## Valet Analysis

An iterative approach was used to determine the number of valet attendants required to accommodate the proposed redevelopment demand during the analysis hour and ensure that the 95<sup>th</sup> percentile valet queue does not extend beyond the designated valet service areas. Detailed valet analysis worksheets are provided in Attachment E-1.

Results of the valet operations analysis demonstrate that a maximum of three (3) valet attendants would be required at the hotel/restaurant/bar valet drop-off/pick-up area, two (2) valet attendants would be required at the resident valet drop-off/pick-up area, and one (1) valet attendant would be required at the residential guest valet drop-off/pick-up area, to not exceed the vehicle drop-off/pick-up storages during the A.M. peak hour. A maximum of 14 valet attendants would be required at the hotel/restaurant/bar valet drop-off/pick-up area, two (2) valet attendants would be required at the resident valet drop-off/pick-up area, and one (1) valet attendant would be required at the residential guest valet drop-off/pick-up area, to not exceed the vehicle drop-off/pick-up storages during the P.M. peak hour.

## MANEUVERABILITY ANALYSIS

The maneuverability analysis was prepared for the access to the parking garage, porte-cochere drop-off area along Collins Avenue, porte-cochere drop-off area along 20<sup>th</sup> Street, and the loading area. The analysis was performed using Transoft's *AutoTurn 10* software design vehicle turning templates and vehicle turning templates consistent with American Association of State Highway and Transportation Officials' (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 2018. The analysis was prepared using passenger car (P) design vehicles for the parking garage and porte-cochere areas. SU-40 design vehicles will be used for deliveries and loading activities. The following summarizes the results of this analysis.

## PARKING GARAGE AND VALET PORTE-COCHERE ACCESS

Access to the on-site valet porte-cochere along Collins Avenue is provided via one (1) ingress only (right-in) driveway and one (1) egress only (right-out) driveway located south of 19<sup>th</sup> Street. Access to the on-site valet porte-cochere along 20<sup>th</sup> Street is provided via one (1) full access driveway east of Collins Avenue. A P design vehicle will be able to maneuver into and through the valet porte-cochere and into and out of the parking garage without conflicting with oncoming traffic, refer to Attachment F-1.

## LOADING AREA ACCESS

Access to the loading and delivery area is provided via one (1) full access driveway along 20<sup>th</sup> Street east of Collins Avenue. SU-40 design vehicles will to able to maneuver into and out of the on-site loading area, refer to Attachment G-1.

## TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Transportation Demand Management (TDM) strategies are proposed to reduce the impacts of the project traffic on the surrounding roadway network. Typical measures promote bicycling and walking, encourage car/vanpooling and offer alternatives to the typical workday hours. Additionally, the applicant will commit to providing the following incentives including:

- Creation of an Employee Transportation Coordinator position to run the transportation demand management (TDM) programs.
- Provide 72 bicycle racks
- Designated scooter/motorcycle parking spaces are being contemplated by the applicant
- Providing bike sharing/rentals for hotel guests
- Wide hallways that can accommodate bicycles
- Elevators that can accommodate bicycles
- Bicycle workroom or shop
- Bicycle washing stations
- Bicycle drop-off/valet service
- Lockers for bicyclists to store a change of clothes will be provided on-site
- Shower facility bicyclists can use will be provided on-site

Additionally, please note that a Citi Bike station with 16 bicycle docks is located along the north side of 21<sup>st</sup> Street just east of Collins Avenue.

## CONCLUSION

Based on the valet operations analysis performed, it was determined that the 95<sup>th</sup> percentile queues will not extend beyond the valet service areas onto Collins Avenue or 20<sup>th</sup> Street. Based upon the conservative assumptions applied, it was estimated that a maximum of 14 valet attendants would be required at the hotel/restaurant/bar valet drop-off/pick-up area, two (2) valet attendants would be required at the resident valet drop-off/pick-up area, and one (1) valet attendant would be required at the residential guest valet drop-off/pick-up area to not exceed the vehicle drop-off/pick-up storage during the P.M. peak hour. Note that projected vehicular volumes and estimated valet processing times were conservatively assumed in the analysis. If it is determined that valet processing times can be performed more efficiently and/or actual traffic volumes are lower than projected, a reduced number of valet attendants may be adequate to serve the site.

Additionally, passenger vehicles and loading vehicles will be able to ingress, egress, and travel through the site and loading areas without major conflicts with oncoming traffic.

Furthermore, the applicant will commit to providing the following TDM incentives including:

- Creation of an Employee Transportation Coordinator position to run the transportation demand management (TDM) programs.
- Provide 72 bicycle racks
- Designated scooter/motorcycle parking spaces are being contemplated by the applicant
- Providing bike sharing/rentals for hotel guests
- Wide hallways that can accommodate bicycles
- Elevators that can accommodate bicycles
- Bicycle workroom or shop
- Bicycle washing stations
- Bicycle drop-off/valet service
- Lockers for bicyclists to store a change of clothes will be provided on-site
- Shower facility bicyclists can use will be provided on-sit

## **Attachment A-1**

### Location Map and Conceptual Site Plan





**Attachment B-1**  
Methodology Correspondence

## Hollowed, Maddy

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**From:** Dabkowski, Adrian  
**Sent:** Wednesday, August 18, 2021 6:41 AM  
**To:** Akcay, Firat  
**Cc:** Francisco Canestri; Hollowed, Maddy  
**Subject:** Shore Club | Traffic Assessment Methodology  
**Attachments:** Traffic Methodology 08 18 2021.pdf

Good morning Firat:

Thank you again for accommodating us with the meeting yesterday, given your hectic schedule! The traffic assessment methodology we discussed is attached. Please let us know if you have any comments.

Adrian

**Adrian K. Dabkowski, P.E., PTOE**

**Kimley-Horn** | 8201 Peters Road, Suite 2200, Plantation, FL 33324  
Direct: 954-535-5144 | Mobile: 303-990-2761

## MEMORANDUM

To: Firat Akcay  
City of Miami Beach

From: Adrian K. Dabkowski, P.E., PTOE



Date: August 18, 2021

**Subject: Shore Club  
Traffic Assessment Methodology**

The purpose of this memorandum is to summarize the traffic assessment methodology for the Shore Club redevelopment located at 1901 Collins Avenue on the southeast quadrant of 20<sup>th</sup> Street and Collins Avenue. The site is occupied by a vacant 333-room hotel, two (2) vacant restaurants with a total of 370 seats, and 12,810 square feet of vacant bar/night club space within three (3) venues including a 7,802 square-foot pool venue, 2,087 square-foot nightclub, and 2,921 square-foot bar. The existing development also included 1,850 square feet of specialty retail space which is considered ancillary to the hotel and not expected to generate external site traffic.

The redevelopment program for the site consists of 75 condominium units, 60-room hotel, two (2) restaurants with a total of 419 seats, and 2,059 square-feet of bar space. The project proposes to use two (2) porte-cocheres including i.) the existing Collins Avenue porte-cochere which will serve the hotel, restaurant, and bar land uses and ii.) 20<sup>th</sup> Street porte-cochere which will serve the residential land uses. Residents will be able to self-park on site. Hotel, restaurant and bar patrons and guests will valet.

A conceptual site plan is provided in Attachment A. The following sections summarize our proposed methodology for the redevelopment and streetscape projects.

## OCEAN TERRACE REDEVELOPMENT

### Redevelopment Trip Generation

Trip generation calculations for the proposed redevelopment were performed using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition and ITE's *Trip Generation Handbook*, 3<sup>rd</sup> Edition for both the existing and proposed development plans.

The trip generation for the existing development was determined using ITE Land Use Codes 310 (Hotel), 931 (Quality Restaurant), and 925 (Drinking Place). The trip generation for the proposed redevelopment was determined using ITE Land Use Codes 222 (Multifamily Housing – High-Rise), 310 (Hotel), 931 (Quality Restaurant), and 925 (Drinking Place).

A multimodal (public transit, bicycle, and pedestrian) factor based on Replica mode-split data was reviewed for the census tract in the vicinity of the development. Replica is a publicly available data set that uses US Census, land use regulations, aggregate mobile location, credit transaction data, and real estate transaction data. Additionally, Replica data evaluates all trips that enter and exit the census tract

in which the development is located. It is expected that a portion of residents, guests, and patrons will choose to walk, bike, or use public transit to and from the proposed development. A multimodal factor of 35.2 percent (35.2%) was calculated using Replica mode-split data. Consistent with City of Miami Beach requirements the multimodal factor was limited to 20.0 percent (20.0%) and applied to the trip generation calculations to account for the urban environment in which the project site is located. Replica mode-split data are included in Attachment B.

Internal capture is expected between the complementary land uses within the project. Internal capture trips for the project were determined based upon methodology contained in the ITE’s *Trip Generation Handbook*, 3<sup>rd</sup> Edition. An internal capture rate of 16.9 percent (16.9%) was calculated for the existing development during the P.M. peak hour. An internal capture rate of 3.7 percent (3.7%) is expected for the proposed redevelopment during the A.M. peak hour and 27.3 percent (27.3%) during the P.M. peak hour.

Table 1 shows a summary of the existing development program, if operational, peak hour trip generation and the proposed redevelopment trip generation vehicular peak hour trips. The project is expected to result in a reduction of 39 vehicle trips during the A.M. peak hour and a reduction of 65 vehicle trips during the P.M. peak hour when comparing the proposed redevelopment program to the existing development program. Detailed trip generation calculations are included in Attachment B.

Detailed trip generation calculations are included in Attachment A. As Table 1 indicates, the proposed redevelopment represents a decrease of 82 A.M. and 203 P.M. peak hour trips. Detailed trip generation calculations are contained in Attachment A.

Table 1: Trip Generation Summary						
Development Plan	A.M. Peak Hour			P.M. Peak Hour		
	In	Out	Total	In	Out	Total
Existing Development <sup>(1)</sup>	79	55	134	192	123	315
Proposed Redevelopment	21	31	52	78	34	112
<b>Net Change</b>	<b>-58</b>	<b>-24</b>	<b>-82</b>	<b>-114</b>	<b>-89</b>	<b>-203</b>

Note: <sup>(1)</sup> If operational.

### Valet Analysis

A valet operations queuing analysis will be prepared for the vehicle drop-off/pick-up area to assess expected vehicle queues at i.) the existing Collins Avenue porte-cochere which will serve the hotel, restaurant, and bar land uses and ii.) 20<sup>th</sup> Street porte-cochere which will serve the residential land uses.

Trip generation estimates will be utilized to provide for the highest demand scenario either A.M. or P.M. peak hour. The valet operations queuing analysis will be conducted consistent with procedures described in ITE’s *Transportation and Land Development*, 1988. A traffic circulation figure will be prepared to illustrate the valet routes to and from the vehicle drop-off/pick-up area.

## **Maneuverability Analysis**

A maneuverability analysis for the site access, parking garage, and loading vehicle access will be performed utilizing Transoft Solutions' *AutoTURN* software. Deficiencies related to maneuverability, traffic flow, and vehicular conflicts will be documented in a technical memorandum.

A narrative for the loading operations will also be provided as part of the maneuverability analysis.

## **Transportation Demand Management Strategies**

Transportation Demand Management (TDM) strategies will be developed to reduce the impact of project traffic on the surrounding roadway network and promote trip reduction. Typical measures promote bicycling and walking, encourage car/vanpooling and offer alternatives to the typical workday hours.

## **Pedestrian Sight Triangle Evaluation**

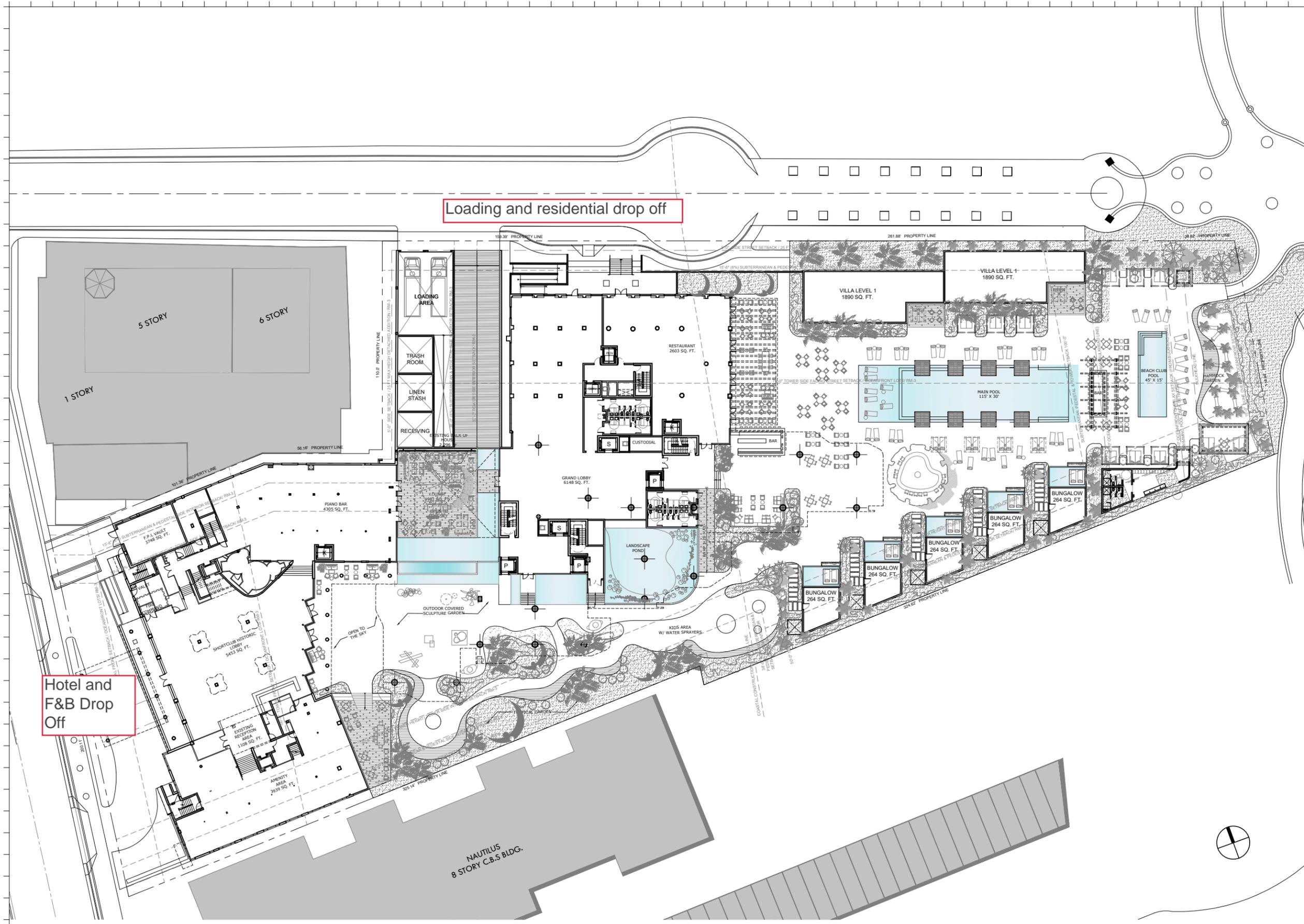
Pedestrian sight triangles will be provided for all project driveways and included in a technical letter.

## **Documentation**

The results of the traffic assessment will be summarized in a technical letter. The technical letter will include supporting documents including trip generation calculations, valet analysis results, maneuverability analysis results, TDMs, and text and graphics necessary to summarize the assumptions and analysis. An electronic copy of the technical letter will be provided as part of the submittal package.

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**Attachment A**  
Conceptual Site Plan



Loading and residential drop off

Hotel and F&B Drop Off

Rev.	Date	Rev.	Date

ALL DRAWINGS AND WRITTEN MATERIAL APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF KOB KARP AIA, AND MAY NOT BE DUPLICATED, USED, OR DISCLOSED WITHOUT THE EXPRESS WRITTEN CONSENT OF KOB KARP ARCHITECTURE & INTERIOR DESIGN, INC. AIA 01-2020.

**Shore Club**  
1901 Collins Ave.  
Miami Beach, FL 33139

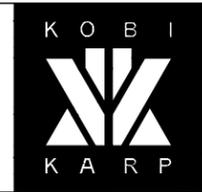
**Owner:**  
Name  
Address  
Address  
Tel:  
Email

**Consultant:**  
Name  
Address  
Address  
Tel:  
Email

**Consultant:**  
Name  
Address  
Address  
Tel:  
Email

**Consultant:**  
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Address  
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KOBI KARP  
Lic. # AR0012578

**PROPOSED LEVEL 1**

**1** PROPOSED OVERALL LEVEL 1 FLOOR PLAN  
SCALE: 1" = 50'-0"

Date	06-16-2021	Sheet No.	A3.01
Scale	1"=50'-0"		
Project	2104		



**Attachment B**  
Trip Generation Calculations

# AM PEAK HOUR TRIP GENERATION COMPARISON

## EXISTING WEEKDAY AM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE			EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Drinking Place	10	925	12.81	kfs	50%	50%	0	0	0	20.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	
	2	Quality Restaurant	10	931	370	seat	50%	50%	4	3	7	20.0%	2	3	2	5	0.0%	0	3	2	5	0.0%	0	3	2	5
	3	Hotel	10	310	333	room	59%	41%	95	66	161	20.0%	32	76	53	129	0.0%	0	76	53	129	0.0%	0	76	53	129
	4																									
	5																									
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	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			Total:			99	69	168	20.0%	34	79	55	134	0.0%	0	79	55	134	0.0%	0	79	55	134
		925	Y=0(X) <sup>(1)</sup>			Note: <sup>(1)</sup> The drinking place land use is closed during the A.M. peak hour																				
		931	Y=0.02(X)																							
		310	Y=0.5*(X)+-5.34																							

## PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE			EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 2	1	Drinking Place	10	925	2.059	kfs	50%	50%	0	0	0	20.0%	0	0	0	0.0%	0	0	0	0	0.0%	0	0	0	0	
	2	Quality Restaurant	10	931	419	seat	50%	50%	5	4	9	20.0%	2	4	3	7	14.3%	1	3	3	6	0.0%	0	3	3	6
	3	Multifamily Housing (High-Rise)	10	222	75	du	24%	76%	8	26	34	20.0%	7	6	21	27	3.7%	1	6	20	26	0.0%	0	6	20	26
	4	Hotel	10	310	60	room	59%	41%	15	10	25	20.0%	5	12	8	20	0.0%	0	12	8	20	0.0%	0	12	8	20
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			Total:			28	40	68	19.8%	14	22	32	54	3.7%	2	21	31	52	0.0%	0	21	31	52
		925	Y=0(X) <sup>(1)</sup>			Note: <sup>(1)</sup> The drinking place land use is closed during the A.M. peak hour																				
		931	Y=0.02(X)																							
		222	Y=0.28*(X)+12.86																							
		310	Y=0.5*(X)+-5.34																							

	IN	OUT	TOTAL
<b>NET NEW TRIPS</b>	<b>-58</b>	<b>-24</b>	<b>-82</b>

## PM PEAK HOUR TRIP GENERATION COMPARISON

### EXISTING WEEKDAY PM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE			EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Drinking Place	10	925	12.81	kfs	66%	34%	96	50	146	20.0%	29	77	40	117	23.1%	27	64	26	90	0.0%	0	64	26	90
	2	Quality Restaurant	10	931	370	seat	67%	33%	70	34	104	20.0%	21	56	27	83	33.7%	28	41	14	55	0.0%	0	41	14	55
	3	Hotel	10	310	333	room	51%	49%	114	110	224	20.0%	45	91	88	179	5.0%	9	87	83	170	0.0%	0	87	83	170
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			Total:		280	194	474	20.0%	95	224	155	379	16.9%	64	192	123	315	0.0%	0	192	123	315	
		925	Y=11.36(X)																							
		931	Y=0.28(X)																							
		310	Y=0.75*(X)+-26.02																							

### PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE			EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS		
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 2	1	Drinking Place	10	925	2.059	kfs	66%	34%	15	8	23	20.0%	5	12	6	18	61.1%	11	5	2	7	0.0%	0	5	2	7
	2	Quality Restaurant	10	931	419	seat	67%	33%	78	39	117	20.0%	23	62	32	94	19.1%	18	55	21	76	0.0%	0	55	21	76
	3	Multifamily Housing (High-Rise)	10	222	75	du	61%	39%	21	13	34	20.0%	7	17	10	27	29.6%	8	12	7	19	0.0%	0	12	7	19
	4	Hotel	10	310	60	room	51%	49%	10	9	19	20.0%	4	8	7	15	33.3%	5	6	4	10	0.0%	0	6	4	10
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			Total:		124	69	193	20.1%	39	99	55	154	27.3%	42	78	34	112	0.0%	0	78	34	112	
		925	Y=11.36(X)																							
		931	Y=0.28(X)																							
		222	Y=0.34*(X)+8.56																							
		310	Y=0.75*(X)+-26.02																							

	IN	OUT	TOTAL
<b>NET NEW TRIPS</b>	<b>-114</b>	<b>-89</b>	<b>-203</b>

# Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour based on the Trip Generation Handbook, 3rd Edition, published by the Institute of Transportation Engineers

## SUMMARY (EXISTING)

GROSS TRIP GENERATION					
INPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	77	40
	Restaurant	3	2	56	27
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	76	53	91	88
	79	55	224	155	
INTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	13	14
	Restaurant	0	0	15	13
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	0	0	4	5
	0	0	32	32	
OUTPUT	<i>Total % Reduction</i>	<i>0.0%</i>		<i>16.9%</i>	
	Office				
	Retail			23.1%	
	Restaurant	0.0%		33.7%	
	Cinema/Entertainment				
	Residential				
	Hotel	0.0%		5.0%	
EXTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	64	26
	Restaurant	3	2	41	14
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	76	53	87	83
	79	55	192	123	

# Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour based on the Trip Generation Handbook, 3rd Edition, published by the Institute of Transportation Engineers

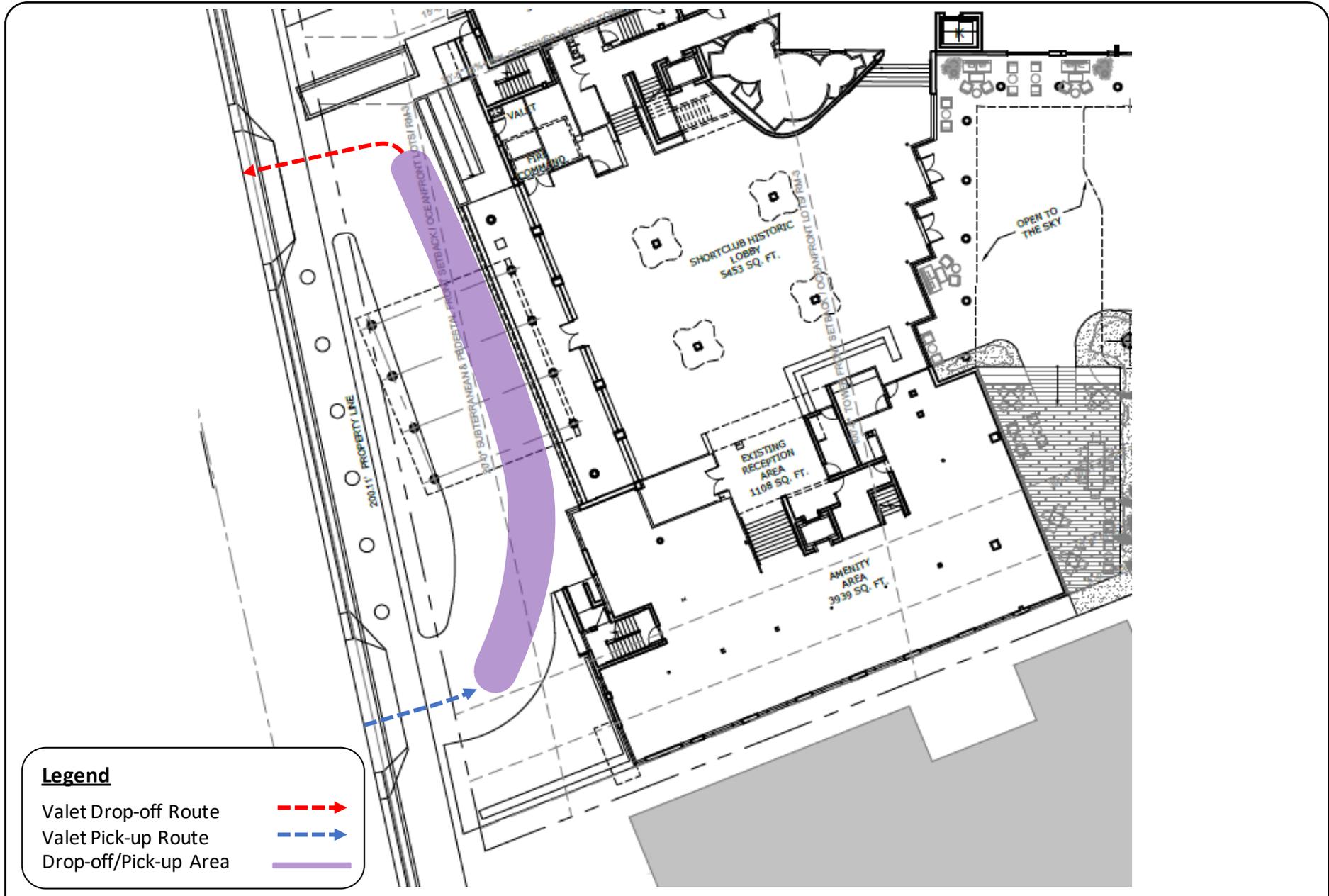
## SUMMARY (PROPOSED)

GROSS TRIP GENERATION					
INPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	12	6
	Restaurant	4	3	62	32
	Cinema/Entertainment	0	0	0	0
	Residential	6	21	17	10
	Hotel	12	8	8	7
		22	32	99	55
INTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	7	4
	Restaurant	1	0	7	11
	Cinema/Entertainment	0	0	0	0
	Residential	0	1	5	3
	Hotel	0	0	2	3
		1	1	21	21
OUTPUT	<i>Total % Reduction</i>	<b>3.7%</b>		<b>27.3%</b>	
	Office				
	Retail			61.1%	
	Restaurant	14.3%		19.1%	
	Cinema/Entertainment				
	Residential	3.7%		29.6%	
	Hotel	0.0%		33.3%	
EXTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	5	2
	Restaurant	3	3	55	21
	Cinema/Entertainment	0	0	0	0
	Residential	6	20	12	7
	Hotel	12	8	6	4
		21	31	78	34

### Replica Mode Split Data To and From Tract 42.06

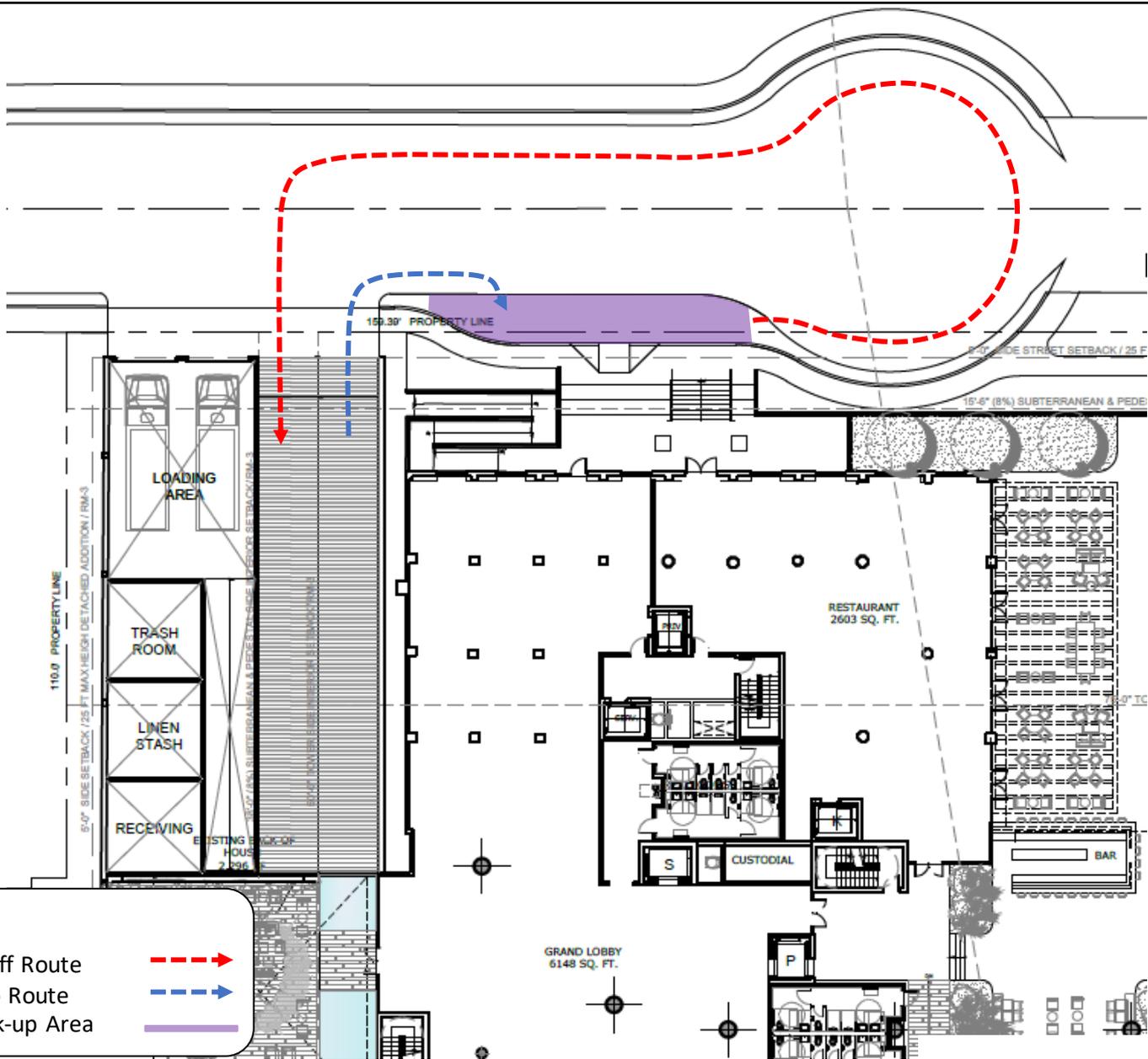
Geo ID	Tract	Week Starting	Population	Total Count Average Weekday	Other Travel	Public Transit Count Average Weekday	Private Auto Count Average Weekday	Auto Passenger
					Mode Count Average Weekday			Count Average Weekday
12086004206	42.06 (Miami-Dade, FL)	1/20/2020	5052	2544	495	407	1251	391
12086004206	42.06 (Miami-Dade, FL)	1/27/2020	5052	3593	695	574	1771	553
12086004206	42.06 (Miami-Dade, FL)	2/3/2020	5052	2045	412	321	1001	311
12086004206	42.06 (Miami-Dade, FL)	2/10/2020	5052	2098	428	327	1025	318
12086004206	42.06 (Miami-Dade, FL)	2/17/2020	5052	2658	474	428	1340	416
12086004206	42.06 (Miami-Dade, FL)	2/24/2020	5052	2051	390	329	1015	317
<b>Total</b>				<b>14,989</b>	<b>2,894</b>	<b>2,386</b>		
<b>Multimodal Factor</b>				<b>35.2%</b>				

**Attachment C-1**  
Valet Routing



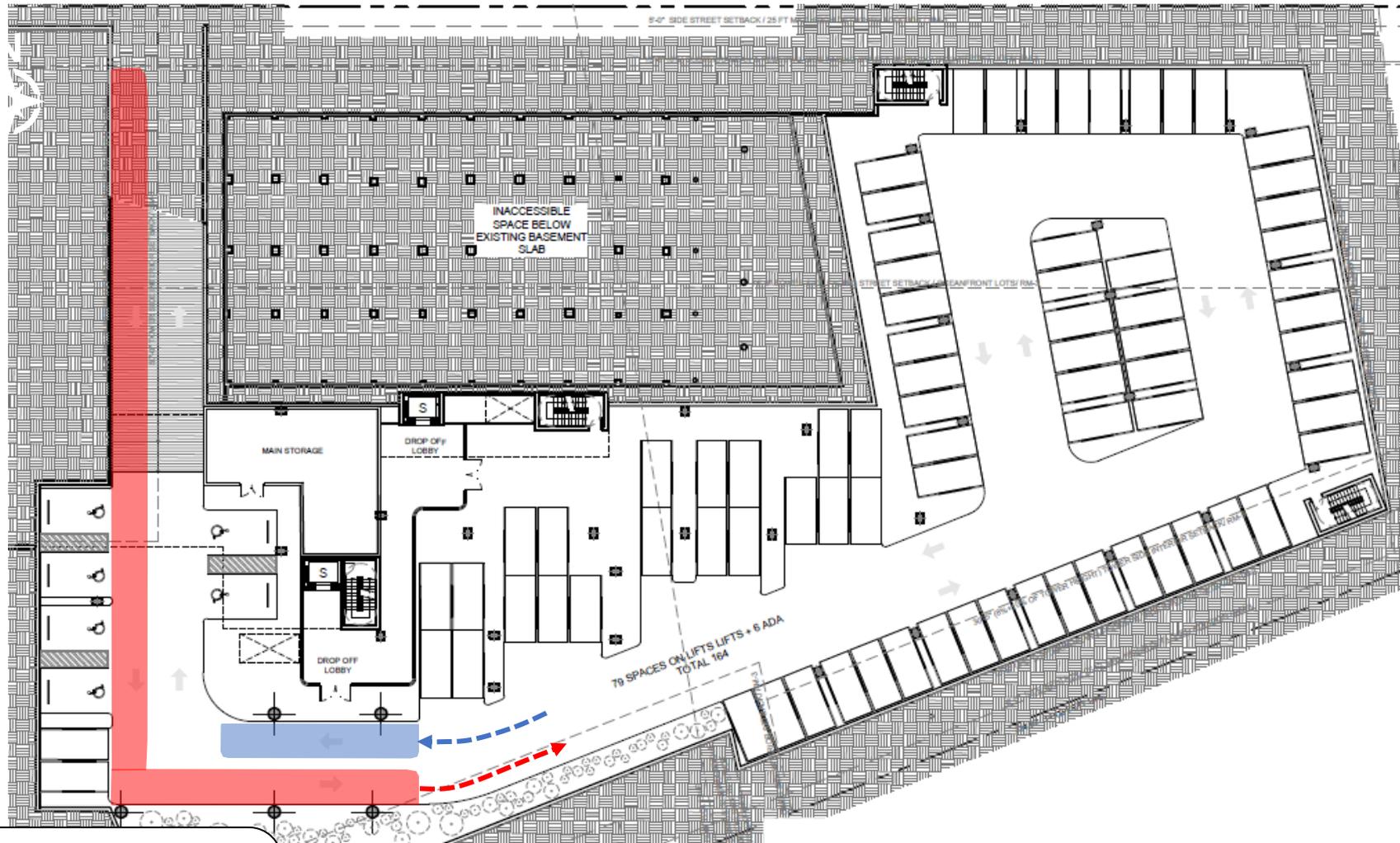
**Legend**

- Valet Drop-off Route - - - - ->
- Valet Pick-up Route - - - - ->
- Drop-off/Pick-up Area



**Legend**

- Valet Drop-off Route →
- Valet Pick-up Route →
- Drop-off/Pick-up Area



**Legend**

- Valet Drop-off Route - - - - ->
- Valet Pick-up Route - - - - ->
- Drop-off Area —————
- Pick-up Area —————

# **Attachment D-1**

## Trip Generation

# AM PEAK HOUR TRIP GENERATION COMPARISON

## EXISTING WEEKDAY AM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Drinking Place	10	925	12.81	ksf	50%	50%	0	0	0	20.0%	0	0	0	0.0%	0	0	0	0	0	0.0%	0	0	0	0
	2	Quality Restaurant	10	931	370	seat	50%	50%	4	3	7	20.0%	2	3	2	5	0.0%	0	3	2	5	0.0%	0	3	2	5
	3	Hotel	10	310	333	room	59%	41%	95	66	161	20.0%	32	76	53	129	0.0%	0	76	53	129	0.0%	0	76	53	129
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			<b>Total:</b>			99	69	168	20.0%	34	79	55	134	0.0%	0	79	55	134	0.0%	0	79	55	134

Note: <sup>(1)</sup> The drinking place land use is closed during the A.M. peak hour

## PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS			
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 2	1	Drinking Place	10	925	2,059	ksf	50%	50%	0	0	0	20.0%	0	0	0	16.7%	0	0	0	0	0.0%	0	0	0	0	
	2	Quality Restaurant	10	931	419	seat	50%	50%	4	4	8	20.0%	2	3	3	6	16.7%	1	2	3	5	0.0%	0	2	3	5
	3	Multifamily Housing (High-Rise)	10	222	80	du	24%	76%	8	27	35	20.0%	7	6	22	28	3.6%	1	6	21	27	0.0%	0	6	21	27
	4	Hotel	10	310	65	room	59%	41%	16	11	27	20.0%	5	13	9	22	0.0%	0	13	9	22	0.0%	0	13	9	22
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
		ITE Land Use Code	Rate or Equation			<b>Total:</b>			28	42	70	20.0%	14	22	34	56	3.6%	2	21	33	54	0.0%	0	21	33	54

Note: <sup>(1)</sup> The drinking place land use is closed during the A.M. peak hour

	IN	OUT	TOTAL
<b>NET NEW TRIPS</b>	<b>-58</b>	<b>-22</b>	<b>-80</b>

# PM PEAK HOUR TRIP GENERATION COMPARISON

## EXISTING WEEKDAY PM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS					
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total			
						In	Out																					
GROUP 1	1	Drinking Place	10	925	12.81	ksf	66%	34%	96	50	146	20.0%	29	77	40	117	6.0%	7	73	37	110	44.0%	48	41	21	62		
	2	Quality Restaurant	10	931	370	seat	67%	33%	70	34	104	20.0%	21	56	27	83	6.0%	5	53	25	78	0.0%	0	53	25	78		
	3	Hotel	10	310	333	room	51%	49%	114	110	224	20.0%	45	91	88	179	6.7%	12	86	81	167	0.0%	0	86	81	167		
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											
	13																											
	14																											
	15																											
		ITE Land Use Code	Rate or Equation			Total:		280	194	474	20.0%	95	224	155	379	6.3%	24	212	143	355	13.5%	48	180	127	307			
		925	Y=11.36(X)																									
		931	Y=0.28(X)																									
		310	Y=0.75*(X)+-26.02																									

## PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

	ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		BASELINE TRIPS			MULTIMODAL REDUCTION		GROSS TRIPS			INTERNAL CAPTURE		EXTERNAL VEHICLE TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS						
	Land Use	ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total				
						In	Out																						
GROUP 2	1	Drinking Place	10	925	2,059	ksf	66%	34%	15	8	23	20.0%	5	12	6	18	10.7%	2	11	5	16	44.0%	7	6	3	9			
	2	Quality Restaurant	10	931	419	seat	67%	33%	78	39	117	20.0%	23	62	32	94	10.7%	10	57	27	84	0.0%	0	57	27	84			
	3	Multifamily Housing (High-Rise)	10	222	80	du	61%	39%	22	14	36	20.0%	7	18	11	29	17.2%	5	15	9	24	0.0%	0	15	9	24			
	4	Hotel	10	310	65	room	51%	49%	12	11	23	20.0%	5	9	9	18	38.9%	7	6	5	11	0.0%	0	6	5	11			
	5																												
	6																												
	7																												
	8																												
	9																												
	10																												
	11																												
	12																												
	13																												
	14																												
	15																												
		ITE Land Use Code	Rate or Equation			Total:		127	72	199	20.0%	40	101	58	159	15.1%	24	89	46	135	5.2%	7	84	44	128				
		925	Y=11.36(X)																										
		931	Y=0.28(X)																										
		222	Y=0.34*(X)+8.56																										
		310	Y=0.75*(X)+-26.02																										

	IN	OUT	TOTAL
<b>NET NEW TRIPS</b>	<b>-96</b>	<b>-83</b>	<b>-179</b>

# Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour based on the Trip Generation Handbook, 3rd Edition, published by the Institute of Transportation Engineers

## SUMMARY (EXISTING)

GROSS TRIP GENERATION					
<b>INPUT</b>	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	3	2	133	67
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	76	53	91	88
	79	55	224	155	
INTERNAL TRIPS					
<b>OUTPUT</b>	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	0	0	7	5
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	0	0	5	7
	0	0	12	12	
<b>OUTPUT</b>	<i>Total % Reduction</i>	<i>0.0%</i>		<i>6.3%</i>	
	Office				
	Retail				
	Restaurant	0.0%		6.0%	
	Cinema/Entertainment				
	Residential				
	Hotel	0.0%		6.7%	
EXTERNAL TRIPS					
<b>OUTPUT</b>	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	3	2	126	62
	Cinema/Entertainment	0	0	0	0
	Residential	0	0	0	0
	Hotel	76	53	86	81
	79	55	212	143	

# Internal Capture Reduction Calculations

Methodology for A.M. Peak Hour and P.M. Peak Hour based on the Trip Generation Handbook, 3rd Edition, published by the Institute of Transportation Engineers

## SUMMARY (PROPOSED)

GROSS TRIP GENERATION					
INPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	3	3	74	38
	Cinema/Entertainment	0	0	0	0
	Residential	6	22	18	11
	Hotel	13	9	9	9
		22	34	101	58
INTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	1	0	6	6
	Cinema/Entertainment	0	0	0	0
	Residential	0	1	3	2
	Hotel	0	0	3	4
		1	1	12	12
OUTPUT	<i>Total % Reduction</i>	<b>3.6%</b>		<b>15.1%</b>	
	Office				
	Retail				
	Restaurant	16.7%		10.7%	
	Cinema/Entertainment				
	Residential	3.6%		17.2%	
	Hotel	0.0%		38.9%	
EXTERNAL TRIPS					
OUTPUT	Land Use	A.M. Peak Hour		P.M. Peak Hour	
		Enter	Exit	Enter	Exit
	Office	0	0	0	0
	Retail	0	0	0	0
	Restaurant	2	3	68	32
	Cinema/Entertainment	0	0	0	0
	Residential	6	21	15	9
	Hotel	13	9	6	5
		21	33	89	46

**PROPOSED WEEKDAY AM PEAK HOUR NET NEW EXTERNAL RIDESHARE TRIP GENERATION**

ITE TRIP GENERATION CHARACTERISTICS					NET NEW EXTERNAL TRIPS			RIDESHARE TRIPS				NET NEW VALET TRIPS		
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out	Total	% Rideshare	In	Out	Total	In	Out	Total
Drinking Place	10	925	2.059	ksf	0	0	0	0.0%	0	0	0	0	0	0
Quality Restaurant	10	931	419	seat	2	3	5	0.0%	0	0	0	2	3	5
Multifamily Housing (High-Rise)	10	222	80	du	6	21	27	7.5%	0	2	2	6	19	25
Hotel	10	310	65	room	13	9	22	42.6%	5	4	9	8	5	13
<b>Total</b>	-	-	-	-	21	33	54	-	5	6	11	16	27	43

**PROPOSED WEEKDAY PM PEAK HOUR NET NEW EXTERNAL RIDESHARE TRIP GENERATION**

ITE TRIP GENERATION CHARACTERISTICS					NET NEW EXTERNAL TRIPS			RIDESHARE TRIPS				NET NEW VALET TRIPS		
Land Use	ITE Edition	ITE Code	Scale	ITE Units	In	Out	Total	% Rideshare	In	Out	Total	In	Out	Total
Drinking Place	10	925	2.059	ksf	11	5	16	0.0%	0	0	0	11	5	16
Quality Restaurant	10	931	419	seat	57	27	84	0.0%	0	0	0	57	27	84
Multifamily Housing (High-Rise)	10	222	80	du	15	9	24	5.7%	1	0	1	14	9	23
Hotel	10	310	65	room	6	5	11	42.6%	3	2	5	3	3	6
<b>Total</b>	-	-	-	-	89	46	135	-	4	2	6	85	44	129

AM PEAK HOUR VALET TRIPS			
	In	Out	Total
Hotel/Restaurant/Bar	10	8	18
Resident	5	17	22
Residential Guest	1	2	3
<b>Total</b>	16	27	43

PM PEAK HOUR VALET TRIPS			
	In	Out	Total
Hotel/Restaurant/Bar	71	35	106
Resident	13	8	21
Residential Guest	1	1	2
<b>Total</b>	85	44	129

### Replica Mode Split Data To and From Tract 42.06

Geo ID	Tract	Week Starting	Population	Total Count Average Weekday	Other Travel	Public Transit Count Average Weekday	Private Auto Count Average Weekday	Auto Passenger
					Mode Count Average Weekday			Count Average Weekday
12086004206	42.06 (Miami-Dade, FL)	1/20/2020	5052	2544	495	407	1251	391
12086004206	42.06 (Miami-Dade, FL)	1/27/2020	5052	3593	695	574	1771	553
12086004206	42.06 (Miami-Dade, FL)	2/3/2020	5052	2045	412	321	1001	311
12086004206	42.06 (Miami-Dade, FL)	2/10/2020	5052	2098	428	327	1025	318
12086004206	42.06 (Miami-Dade, FL)	2/17/2020	5052	2658	474	428	1340	416
12086004206	42.06 (Miami-Dade, FL)	2/24/2020	5052	2051	390	329	1015	317
<b>Total</b>				<b>14,989</b>	<b>2,894</b>	<b>2,386</b>		
<b>Multimodal Factor</b>				<b>35.2%</b>				

**Attachment E-1**  
Valet Analysis

# Mechanical-Lift Processing Scenarios

# Vehicle Processing Scenarios



**Vehicle A (non-tandem) - Drop-Off**

1. Attendant drives onto lift	10
<b>10 sec</b>	

**Vehicle A (non-tandem) - Pick-Up**

1. Attendant drives off of lift	10
<b>10 sec</b>	

**Vehicle B (non-tandem): No Vehicle A - Drop-Off**

1. Attendant maneuvers in front of lift	10
2. Attendant exits vehicle to lower lift	5
3. Attendant lowers lift	20
4. Attendant re-enters vehicle and drives onto lift	15
5. Attendant exits vehicle	5
6. Attendant raises lift	30
<b>85 sec</b>	

**Vehicle B (non-tandem): No Vehicle A - Pick-Up**

1. Attendant lowers lift	20
2. Attendant enters vehicle and drives off of lift	15
3. Attendant exits vehicle to raise lift	5
4. Attendant raises lift	30
5. Attendant re-enters vehicle	5
<b>75 sec</b>	

**Vehicle B (non-tandem): Vehicle A Parked - Drop-Off**

1. Attendant exits Vehicle B	5
2. Attendant enters Vehicle A	5
3. Attendant moves Vehicle A to drive aisle	10
4. Attendant exits Vehicle A	5
5. Attendant lowers lift	20
6. Attendant re-enters Vehicle B and drives onto lift	15
7. Attendant exits Vehicle B	5
8. Attendant raises lift	30
9. Attendant re-enters Vehicle A and drives into parking space	15
10. Attendant exits Vehicle A	5
<b>115 sec</b>	

**Vehicle B (non-tandem): Vehicle A Parked - Pick-Up**

1. Attendant moves Vehicle A underneath lift to drive aisle	10
2. Attendant exits Vehicle A	5
3. Attendant lowers lift	20
4. Attendant enters Vehicle B and drives off of lift	15
5. Attendant exits Vehicle B to raise lift	5
6. Attendant raises lift	30
7. Attendant re-enters Vehicle A and drives into parking space	15
8. Attendant exits Vehicle A	5
9. Attendant re-enters Vehicle B	5
<b>110 sec</b>	

**Average Drop-off Processing Time      70 sec**

**Average Pick-up Processing Time      65 sec**

## Valet Processing Time

Shore Club Hotel/Restaurant/Bar Off-Site Parking Calculated Average Travel Time			
VALET DROP-OFF			
<b>VEHICLE TRAVEL TIME</b>		<b>VALET ATTENDANT TRAVEL TIME</b>	
Travel Times (Assume) 15 mph speed)		Travel Times (Assume) 5 ft/s speed)	
<b>To Valet Parking Area (In vehicle)</b>		<b>Return from Valet Parking Area (Walk/Run) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.25 miles	1 minutes	0.25 miles	4.4 minutes
Controlled Delay	0.5 Minutes		
<b>Total Time</b>	<b>5.9 Minutes</b>		

Shore Club Hotel/Restaurant/Bar Off-Site Parking Calculated Average Travel Time			
VALET PICK-UP			
<b>VALET ATTENDANT TRAVEL TIME</b>		<b>VEHICLE TRAVEL TIME</b>	
Travel Times (Assume) 5 ft/s speed)		Travel Times (Assume) 15 mph speed)	
<b>To Valet Parking Area (Walk/Run)</b>		<b>Return from Valet Parking Area (In Vehicle) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.25 miles	4.4 minutes	0.25 miles	1.0 minutes
Controlled Delay	0.5 Minutes		
<b>Total Time</b>	<b>5.9 Minutes</b>		

Shore Club Guest On-Site Parking Calculated Average Travel Time			
VALET DROP-OFF			
<b>VEHICLE TRAVEL TIME</b>		<b>VALET ATTENDANT TRAVEL TIME</b>	
Travel Times (Assume) 15 mph speed)		Travel Times (Assume) 5 ft/s speed)	
<b>To Valet Parking Area (In vehicle)</b>		<b>Return from Valet Parking Area (Walk/Run) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.16 miles	0.7 minutes	0.16 miles	2.8 minutes
Controlled Delay	0.5 Minutes		
Average Mechanical-Lift Processing Time	1.2 Minutes		
<b>Total Time</b>	<b>5.2 Minutes</b>		

Shore Club Guest On-Site Parking Calculated Average Travel Time			
VALET PICK-UP			
<b>VALET ATTENDANT TRAVEL TIME</b>		<b>VEHICLE TRAVEL TIME</b>	
Travel Times (Assume) 5 ft/s speed)		Travel Times (Assume) 15 mph speed)	
<b>To Valet Parking Area (Walk/Run)</b>		<b>Return from Valet Parking Area (In Vehicle) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.16 miles	2.8 minutes	0.13 miles	0.5 minutes
Controlled Delay	0.5 Minutes		
Average Mechanical-Lift Processing Time	1.1 Minutes		
<b>Total Time</b>	<b>4.9 Minutes</b>		

Shore Club Resident On-Site Parking Calculated Average Travel Time			
VALET DROP-OFF			
<b>VEHICLE TRAVEL TIME</b>		<b>VALET ATTENDANT TRAVEL TIME</b>	
Travel Times (Assume) 15 mph speed)		Travel Times (Assume) 5 ft/s speed)	
<b>To Valet Parking Area (In vehicle)</b>		<b>Return from Valet Parking Area (Walk/Run) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.07 miles	0.3 minutes	0.07 miles	1.2 minutes
Controlled Delay	0.5 Minutes		
Average Mechanical-Lift Processing Time	1.2 Minutes		
<b>Total Time</b>	<b>3.2 Minutes</b>		

Shore Club Resident On-Site Parking Calculated Average Travel Time			
VALET PICK-UP			
<b>VALET ATTENDANT TRAVEL TIME</b>		<b>VEHICLE TRAVEL TIME</b>	
Travel Times (Assume) 5 ft/s speed)		Travel Times (Assume) 15 mph speed)	
<b>To Valet Parking Area (Walk/Run)</b>		<b>Return from Valet Parking Area (In Vehicle) to Valet Area</b>	
Distance	Travel Time	Distance	Travel Time
0.07 miles	1.2 minutes	0.07 miles	0.3 minutes
Controlled Delay	0.5 Minutes		
Average Mechanical-Lift Processing Time	1.1 Minutes		
<b>Total Time</b>	<b>3.1 Minutes</b>		

# Valet Analysis

### A.M. Hotel/Restaurant/Bar Valet Analysis

Arrival Rate

IN	OUT
10	8

 veh/hr

Service Rate

IN	OUT
5.9	5.9

 mins/veh

Service Time = 5.90 mins/veh

Number of Valet Attendants (N) = 3  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 6 vehicles  
 Total Entering and Exiting Vehicles(q) = 18 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 10.17 veh/hr/pos  
 Average Service Rate (t) = 5.90 mins/veh  
 $\rho$  (t/Q) = 0.590

Expected (avg.) number of vehicles in the system	E(m)=	0.49	
Expected (avg.) number of vehicles waiting in queue	E(n)=	2.26	
Mean time in the queue	E(w)=	1.64	mins
Mean time in system	E(t)=	7.54	mins

Proportion of customers who wait (P) (E(w) > 0)=		34.20%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 2.6 vehicles

### P.M. Hotel/Restaurant/Bar Valet Analysis

Arrival Rate	IN	OUT	veh/hr
	71	35	

Number of Valet Attendants (N) = 14  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 6 vehicles

Service Rate	IN	OUT	mins/veh
	5.9	5.9	

Total Entering and Exiting Vehicles(q) = 106 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 10.17 veh/hr/pos  
 Average Service Rate (t) = 5.90 mins/veh  
 $\rho$  (t/Q) = 0.745

Service Time = 5.90 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.65	
Expected (avg.) number of vehicles waiting in queue	E(n)=	11.07	
Mean time in the queue	E(w)=	0.37	mins
Mean time in system	E(t)=	6.27	mins

Proportion of customers who wait (P) (E(w) > 0)=		22.29%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 4.1 vehicles

### A.M. Resident Valet Analysis

Arrival Rate	IN	OUT	veh/hr
	5	17	

Number of Valet Attendants (N) = 2  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 5 vehicles

Service Rate	IN	OUT	mins/veh
	3.2	3.1	

Total Entering and Exiting Vehicles(q) = 22 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 19.21 veh/hr/pos  
 Average Service Rate (t) = 3.12 mins/veh  
 $\rho$  (t/Q) = 0.573

Service Time = 3.12 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.56	
Expected (avg.) number of vehicles waiting in queue	E(n)=	1.70	
Mean time in the queue	E(w)=	1.52	mins
Mean time in system	E(t)=	4.65	mins

Proportion of customers who wait (P) (E(w) > 0)=		41.69%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 2.8 vehicles

### P.M. Resident Valet Analysis

Arrival Rate

IN	OUT
13	8

 veh/hr

Service Rate

IN	OUT
3.2	3.1

 mins/veh

Service Time = 3.16 mins/veh

Number of Valet Attendants (N) = 2  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 5 vehicles

Total Entering and Exiting Vehicles(q) = 21 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 18.98 veh/hr/pos  
 Average Service Rate (t) = 3.16 mins/veh  
 $\rho$  (t/Q) = 0.553

Expected (avg.) number of vehicles in the system	E(m)=	0.49	
Expected (avg.) number of vehicles waiting in queue	E(n)=	1.60	
Mean time in the queue	E(w)=	1.40	mins
Mean time in system	E(t)=	4.56	mins

Proportion of customers who wait (P) (E(w) > 0)=		39.42%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 2.5 vehicles

### A.M. Residential Guest Valet Analysis

Arrival Rate	IN	OUT	veh/hr
	1	2	

Number of Valet Attendants (N) = 1  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 2 vehicles

Service Rate	IN	OUT	mins/veh
	5.2	4.9	

Total Entering and Exiting Vehicles(q) = 3 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 12.00 veh/hr/pos  
 Average Service Rate (t) = 5.00 mins/veh  
 $\rho$  (t/Q) = 0.250

Service Time = 5.00 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.08	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.33	
Mean time in the queue	E(w)=	1.67	mins
Mean time in system	E(t)=	6.67	mins

Proportion of customers who wait (P) (E(w) > 0)=		25.00%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 0.2 vehicles

### P.M. Residential Guest Valet Analysis

Arrival Rate

IN	OUT
1	1

 veh/hr

Service Rate

IN	OUT
5.2	4.9

 mins/veh

Service Time = 5.05 mins/veh

Number of Valet Attendants (N) = 1  
 Level of Confidence = 0.95  
 Storage Provided On-Site = 2 vehicles  
 Total Entering and Exiting Vehicles(q) = 2 veh/hr  
 Service Capacity per N (60 mins/Service Rate) (Q) = 11.88 veh/hr/pos  
 Average Service Rate (t) = 5.05 mins/veh  
 $\rho$  (t/Q) = 0.168

Expected (avg.) number of vehicles in the system	E(m)=	0.03	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.20	
Mean time in the queue	E(w)=	1.02	mins
Mean time in system	E(t)=	6.07	mins

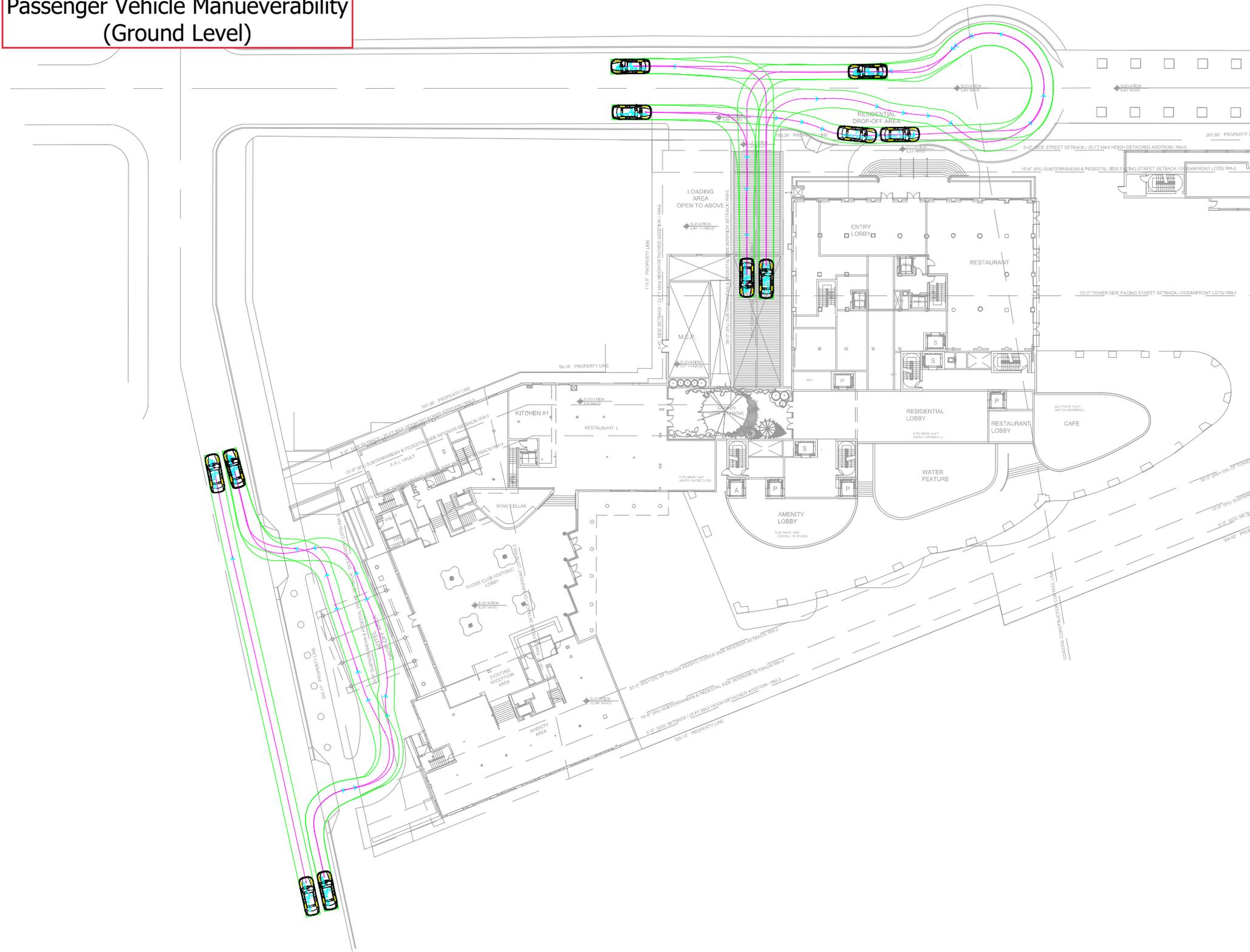
Proportion of customers who wait (P) (E(w) > 0)=		16.83%	
Probability of a queue exceeding a length (M) P(x > M)=		5.00%	

Queue length which is exceeded 5.00% of the times is equal to 0.0 vehicles

## **Attachment F-1**

### Passenger Vehicle Maneuverability Plots

# Passenger Vehicle Maneuverability (Ground Level)





## **Attachment G-1**

### Loading Maneuverability Plots

# SU-40 Ingress Maneuverability

