3

Traffic and Parking Summary

EXECUTIVE SUMMARY

Agave Ponce, LLC is proposing a mixed-use development (Mediterranean Village) in the City of Coral Gables in an area bounded by Ponce De Leon Boulevard (west), Galiano Street (east), Sevilla Avenue (north) and Malaga Avenue (south). The existing site contains vacant land and buildings that will be demolished. The proposed development will consist of a mix of office, residential, and retail uses including a hotel, restaurants, a gym/fitness club, a day care center, and a movie theater.

Trip generation calculations for the proposed mixed-use development were performed using the Institute of Transportation Engineer's (ITE's) *Trip Generation*, 9th Edition. The proposed development is expected to generate 864 new trips during the A.M. peak hour and 1,468 new trips during the P.M. peak hour.

In order to reduce cut-through traffic and speeds along surrounding local streets east of the site, several overall traffic calming measures are being considered. In general, these measures can be grouped into two (2) categories: non-restrictive and restrictive. The non-restrictive measures include reduction of the pavement width, construction of mid-block raised center median with paver treatments within the travel lanes, construction of entry features immediately west of the north-south alley to the west of SW 37th Avenue/Douglas Road where land uses shift from commercial uses to single-family residential homes, and reconstruction of existing roundabouts or installation of raised/tabled intersections along Galiano Street/Malaga Avenue to address existing geometric deficiencies. The restrictive measures include the following:

- Construction of north-south median at the intersection of Galiano Street at Sevilla Avenue, prohibiting east-west through movements, the westbound left-turn movement, and the southbound left-turn movement.
- Construction of north-south median at the intersection of Galiano Street at Palermo Avenue, prohibiting the east-west left and through movements, the northbound left-turn movement, and the southbound left-turn movement.

- Construction of north-south median at the intersection of Galiano Street at Malaga Avenue, prohibiting the westbound left-turn movement and the southbound left-turn movement.

Different project traffic distributions were considered for both the non-restrictive and restrictive measures.

Intersection capacity analyses indicate that the study intersections are expected to operate at levels of service (LOS) E or better during the A.M. and P.M. peak hours under all analysis conditions with exception of one (1) stop-controlled approach during the P.M. peak hour under future background conditions, one (1) stop-controlled approach during the A.M. peak hour under future total conditions with both traffic calming plans, and two (2) stop-controlled approaches during the P.M. peak hour under future total conditions with both traffic calming plans. These results are common during peak periods where a high traffic volume free-flowing major street intersects with a stop-controlled minor street.

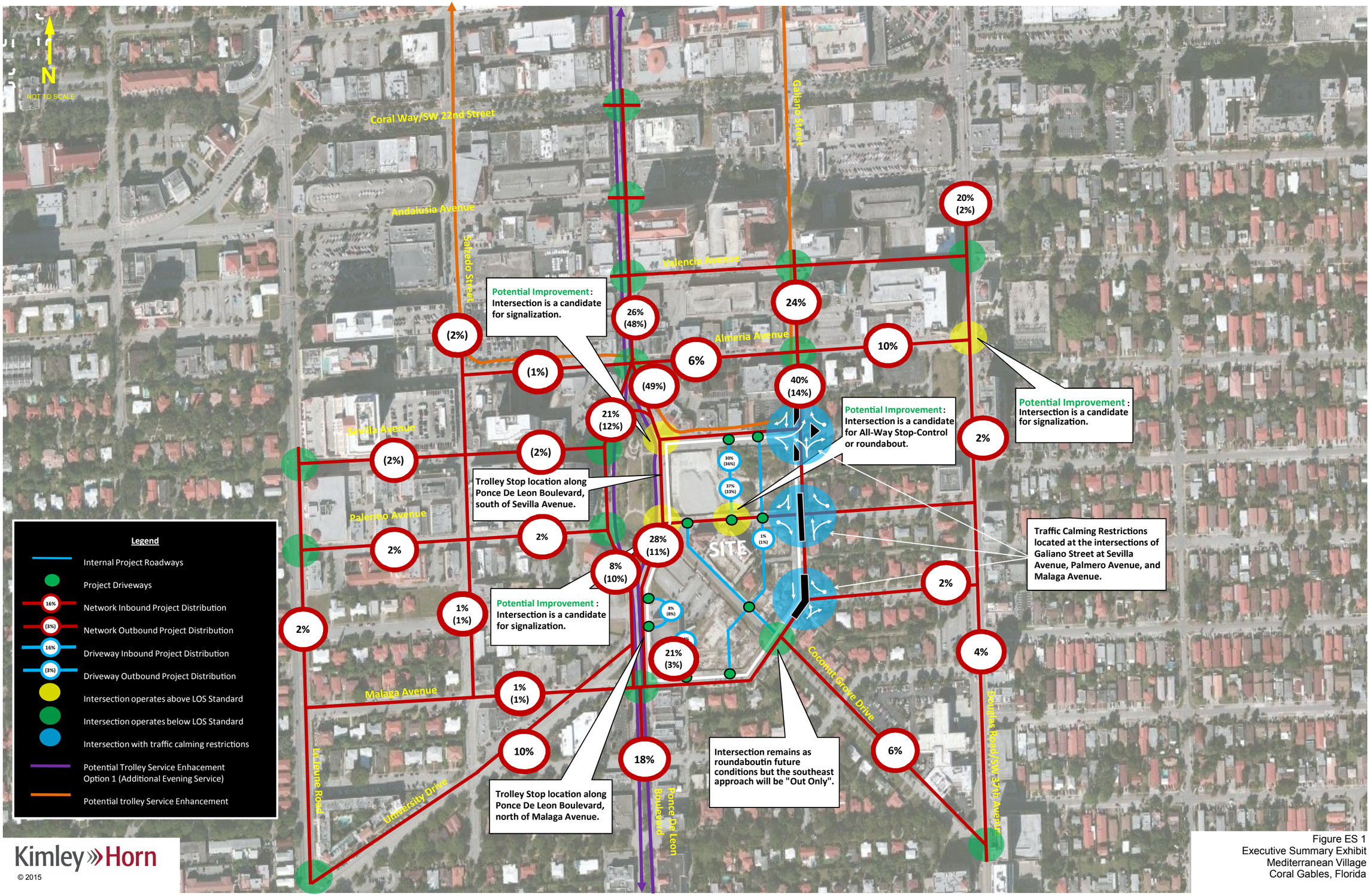
Three (3) of these one-way stop-controlled intersections are candidates for signalization as the expected volumes, with the proposed development, meet the peak hour minimum volume threshold and meet the Miami-Dade County signalized intersection spacing standards. Signalization of an intersection is under jurisdiction of Miami-Dade County Public Works and Waste Management Department Traffic Engineering Division (TED). TED will review the intersection to determine if signalization is appropriate and warranted. If TED determines it appropriate and warranted, traffic signalization plans would be required and reviewed by MDCPWM.

The remaining one-way stop-controlled intersection mentioned above is at a project driveway and it is recommended that all-way traffic control be considered at this location to improve operations including a potential roundabout.

The project plans numerous improvements to improve connectivity and accessibility for alternative modes of travel including the following:

- Enhanced sidewalk and pedestrian areas that include wide sidewalks, public art, robust landscaping, covered walkways, and enhanced streetscape features
- Secured bicycle parking areas
- Changing/shower facilities with lockers and bicyclists
- Covered trolley stop shelter along Ponce De Leon Boulevard at Palermo Avenue providing seating and transit information including route schedules and maps
- The project will also consider making a contribution towards trolley service enhancements:
    - Extend the existing weekday trolley service which operates until along Ponce De Leon Boulevard to a later hou
    - Operate a new Central Business District (CBD) loop route along Alhambra Circle, Merrick Way, Galiano Street, Almeria/Sevilla Avenue, and Salzedo Street during weekday morning, mid-day, and afternoon peak periods.
    - Modifications to the current trolley stop locations to improve accessibility to the project site.

Figure ES 1 illustrates the general traffic distribution, future operating conditions, and potential improvements found in the foregoing analysis.



Kimley»Horn

© 2015

Figure ES 1
Executive Summary Exhibit
Mediterranean Village
Coral Gables, Florida

PARKING REDUCTION

Methodology

Appendix B Parking Reduction Calculations contains the shared parking analysis spreadsheet separated into eight sections and are listed below with supporting narrative of parking reduction methodology and assumptions.

1. Land Use Inputs

Proposed land uses are categorized into Commercial/Hotel and Residential. Commercial/Hotel category also includes uses of retail, cinema, restaurant, daycare, office, and gym. Residential category contains townhouses, 2BR units, and 3BR units. Notes are included for square footage sizes (GLA and GFA) along with cinema square footage accounting for 3 screens and 290 seats.

2. Parking Ratio

For the proposed land uses, the parking ratios utilized were obtained from the City of Coral Gables Zoning Code Section 5-1409. The corresponding city use is listed for each proposed land use.

The restaurant uses have been separated into "family" and "fine/casual dining" type as defined by *ULI Shared Parking*. Family type restaurants are defined as typically lower priced, do not accept reservations, and lack bars or lounges. Family type is defined by ITE as High Turnover without Bar. Fine dining type restaurants include more leisurely dining, reservations, and lower turnover. Fine dining type is defined by ITE as Quality restaurant (931). Casual dining type restaurants are moderately priced, often chains, and generally do not accept reservations. Casual dining type is defined by ITE as High Turnover with Bar (932).

The type of hotel assumed is "business type" as defined by *ULI Shared Parking* and ITE to have limited restaurant or meeting facilities compared with full service hotels.

Understanding *ULI Shared Parking* contains separate parking demand ratios for employees/residents and visitors, the City of Coral Gables base parking demand ratios have been separated into employee and visitor ratios based on ULI relationships of employees/residents and visitors.

3. Trip Reductions

The mode split utilized in the shared parking analysis has been updated to provide separate mode splits for employees/residents and visitors. ULI Shared Parking Table 3-1 Examples of Journey-to-Work Data lists examples of transportation modes information provided by the 2000 U.S. Census Bureau. The mode split for employees/residents utilized is based upon 2012 American Community Survey Miami-Dade Profile dated September 2013 which provides Commuting to Work values from 2010 – 2012. This study has considered the modes of public transportation, walked, and other means to determine the percentage of employees not utilizing a vehicle and therefore not requiring a parking space. Other means category has been included to account for transportation modes such as bicycling and drop-off/pick-up.

The associated total mode split was 9.3% in 2010, 9.4% in 2011, and 10.1% in 2012 resulting in an average of 9.6%. The updated shared parking analysis has been updated for a 9.6% mode split employees/residents and 4.8% visitor mode split (1/2 of employee/resident). Reference Appendix C 2012 American Community Survey Miami-Dade Profile dated September 2013.

4. Parking Calculations

The required parking for each land use, separated into employee/resident and visitor, is calculated based on City of Coral Gables parking demand ratios for employee/resident and visitor to determine the single use parking demand. Daycare is an accessory use to the project, and therefore, only employee generated parking demand is considered. The appropriate mode split is applied to the single use parking demand to determine the trip reduction demand, with the exception of residential townhouses where no trip reduction is applied.

5. Internal Capture

Internal capture is not considered in this parking reduction analysis.

6. Time of Day Trends

Weekday time-of-day factors for employees/residents and visitors were obtained from *ULI Shared Parking* Table 2-5 Recommended Time-of-Day Factors for Weekdays between the hours of 6:00 am and 12:00 am, excluding the daycare land use. Daycare time-of-day factors input are assumptions based upon peak times noted in ITE Parking Generation (Land Use: 565 Day Care Center). Note, only employee generated demand for daycare is considered. Retail utilizes the ULI land use of "Shopping Center – Typical", Restaurant utilizes the ULI land use of "Family Restaurant" and "Fine/Casual Restaurant", and Hotel utilizes the ULI land use of "Hotel – Business". Townhouse residents utilize the ULI land use of "Residential Reserved", and 2BR and 3BR residents utilize the ULI land use of "Residential – Resident".

7. Shared Parking Calculations

Shared parking values are calculated for each land use, separated into employee/resident and visitor categories. The shared parking values are calculated by multiplying the appropriate land use input, City of Coral Gables parking ratio (employee/resident or visitor), and the appropriate time-of-day factor. The employee/resident and visitor shared parking values are added together to determine the peak shared parking demand of 2,869 spaces on a weekday at 2:00 pm. Note, the calculations in this section does not account for trip reduction.

8. Peak Parking Demand

Similar to Section 4, the shared required parking for each land use, separated into employee/resident and visitor, is calculated based on City of Coral Gables parking demand ratios for employee/resident and visitor to determine the single use shared parking demand of 2,869 spaces. The appropriate mode split is applied to the single use shared parking demand to determine the trip-reduced, shared parking demand of 2,653 spaces. Note, trip reduction was not applied to the residential townhouses.

Summary tables of employee/resident, visitor, and total parking spaces for shared parking values and shared parking with trip reduction values are compared with the City of Coral Gables single use parking demand of 3,182 spaces.

Proposed Parking Demand

The proposed parking demand for Mediterranean Village utilizes the current uses per the Owner and Architect's latest program and the City of Coral Gables Zoning Code parking demand ratios. Parking adjustments include multi-modal trips (based upon traffic impact analysis), and time of day trends for visitors, employees, and residents for each use (based upon ULI *Shared Parking*).

Below is a summary of the proposed parking demand in comparison to that required by the City of Coral Gables Zoning Code.

PARKING DEMAND		
City of Coral Gables Zoning Code Single Use Base Demand	**+ Shared Parking**	**+ Modal Split**
3,182 spaces		
	2,869 spaces (10% reduction)	
		2,653 spaces (17% total reduction)

Appendix B Parking Reduction Calculations contain the shared parking analysis values with a peak parking value identified on a weekday at 2 P.M.

Mediterranean Village - Parking Reduction Calculations

1. Land Use Inputs

Commercial and Hotel Uses			Notes:
Retail	242,000	SF	GLA
Cinema	32,000	SF	Phase 1 (3 screens, 290 seats)
Restaurant (Family)	7,250	SF	GLA
Restaurant (Fine/Casual)	21,750	SF	GLA
Daycare	12,000	SF	GLA
Hotel	184	Rooms	
Office	314,000	SF	GFA
Gym	9,500	SF	GFA
Residential Uses			
Townhouse	15	DU	
2 BR	128	DU	
3 BR	86	DU	

2. Parking Ratio

Parking Ratio **Coral Gables**

			Coral Gables Notes: City Use (Section 5-1409)	ULI Notes:	Parking Ratio Separation (ULI Based)		
Commercial and Hotel Uses					Visitor	Employee/Resident	
Retail	4.00	per KSF	Retail sales and services		**3.22**	**0.78**	per KSF
Cinema	3.33	per KSF	Indoor recreation/entertainment		**3.17**	**0.17**	per KSF
Restaurant (Family)	12.00	per KSF	Restaurants	Family Type (ITE - High Turnover without Bar).	**10.29**	**1.71**	per KSF
Restaurant (Fine/Casual)	12.00	per KSF	Restaurants	Fine (ITE - Quality 931) / Casual (ITE - High Turnover with Bar 932) Type	**10.17**	**1.83**	per KSF
Daycare	10.00	per KSF	Daycare		**8.57**	**1.43**	per KSF
Hotel	1.13	per room	Overnight accommodations	Business Type	**0.90**	**0.23**	per room
Office	3.33	per KSF	Offices		**0.25**	**3.09**	per KSF
Gym	3.33	per KSF	Indoor recreation/entertainment		**3.14**	**0.19**	per KSF
Residential Uses							
Townhouse	2.00	per DU	Townhouses	Owned	**0.16**	**1.84**	per DU
2 BR	1.75	per DU	Multi-family dwellings	Owned	**0.14**	**1.61**	per DU
3 BR	2.25	per DU	Multi-family dwellings	Owned	**0.18**	**2.07**	per DU

3. Trip Reductions

Multimodal Trip Reductions (Miami-Dade County Average from 2010-2012)

9.60% (Employee and Resident) 4.80% (Visitor)

4. Parking Calculations

Commercial and Hotel Uses	Visitor	Empl./Res.	Total
Retail	780	189	969
Cinema	102	6	108
Restaurant (Family)	75	13	88
Restaurant (Fine/Casual)	222	40	262
Daycare	0	18	18
Hotel	166	42	208
Office	77	970	1047
Gym	30	2	32
Residential Uses			
Townhouse	3	28	31
2 BR	19	206	225
3 BR	16	178	194
SINGLE USE DEMAND	1,490	1,692	**3,182**

Commercial and Hotel Uses	Visitor	Empl./Res.	Total	Trip Reduction
Retail	743	171	914	Y
Cinema	98	6	104	Y
Restaurant (Family)	72	12	84	Y
Restaurant (Fine/Casual)	212	37	249	Y
Daycare	0	17	17	Y
Hotel	159	38	197	Y
Office	74	877	951	Y
Gym	29	2	31	Y
Residential Uses				
Townhouse	3	28	31	N
2 BR	19	187	206	Y
3 BR	16	161	177	Y
TRIP REDUCTION DEMAND	1,425	1,536	**2,961**	

5. Internal Capture

Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

6. Time of Day Trends

ULI Weekday Visitor

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
6am	1%	0%	25%	0%	0%	95%	0%	70%	0%	0%	0%
7am	5%	0%	50%	0%	0%	90%	1%	40%	10%	10%	10%
8am	15%	0%	60%	0%	0%	80%	20%	40%	20%	20%	20%
9am	35%	0%	75%	0%	0%	70%	60%	70%	20%	20%	20%
10am	65%	0%	85%	15%	0%	60%	100%	70%	20%	20%	20%
11am	85%	0%	90%	40%	0%	60%	45%	80%	20%	20%	20%
12pm	95%	20%	100%	75%	0%	55%	15%	60%	20%	20%	20%
1pm	100%	45%	90%	75%	0%	55%	45%	70%	20%	20%	20%
2pm	95%	55%	50%	65%	0%	60%	100%	70%	20%	20%	20%
3pm	90%	55%	45%	40%	0%	60%	45%	70%	20%	20%	20%
4pm	90%	55%	45%	50%	0%	65%	15%	80%	20%	20%	20%
5pm	95%	60%	75%	75%	0%	70%	10%	90%	40%	40%	40%
6pm	95%	60%	80%	95%	0%	75%	5%	100%	60%	60%	60%
7pm	95%	80%	80%	100%	0%	75%	2%	90%	100%	100%	100%
8pm	80%	100%	80%	100%	0%	80%	1%	80%	100%	100%	100%
9pm	50%	100%	60%	100%	0%	85%	0%	70%	100%	100%	100%
10pm	30%	80%	55%	95%	0%	95%	0%	35%	100%	100%	100%
11pm	10%	65%	50%	75%	0%	100%	0%	10%	80%	80%	80%
12am	0%	40%	25%	25%	0%	100%	0%	0%	50%	50%	50%

ULI Weekday Employee/Resident

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR
6am	10%	0%	50%	0%	100%	5%	3%	75%	100%	100%	100%
7am	15%	0%	75%	20%	100%	30%	30%	75%	100%	100%	100%
8am	40%	0%	90%	50%	100%	90%	75%	75%	100%	100%	100%
9am	75%	0%	90%	75%	100%	90%	95%	75%	100%	100%	100%
10am	85%	0%	100%	90%	100%	100%	100%	75%	100%	100%	100%
11am	95%	0%	100%	90%	100%	100%	100%	75%	100%	100%	100%
12pm	100%	50%	100%	90%	100%	100%	90%	75%	100%	100%	100%
1pm	100%	60%	100%	90%	100%	100%	90%	75%	100%	100%	100%
2pm	100%	60%	100%	90%	100%	100%	100%	75%	100%	100%	100%
3pm	100%	75%	75%	75%	100%	100%	100%	75%	100%	100%	100%
4pm	100%	75%	75%	75%	100%	90%	90%	75%	100%	100%	100%
5pm	95%	100%	95%	100%	100%	70%	50%	100%	100%	100%	100%
6pm	95%	100%	95%	100%	100%	40%	25%	100%	100%	100%	100%
7pm	95%	100%	95%	100%	50%	20%	10%	75%	100%	100%	100%
8pm	90%	100%	95%	100%	0%	20%	7%	50%	100%	100%	100%
9pm	75%	100%	80%	100%	0%	20%	3%	20%	100%	100%	100%
10pm	40%	100%	65%	100%	0%	20%	1%	20%	100%	100%	100%
11pm	15%	70%	65%	85%	0%	10%	0%	20%	100%	100%	100%
12am	0%	50%	35%	35%	0%	5%	0%	0%	100%	100%	100%

Notes:

1. Daycare values provided are estimated based upon ITE Parking Generation Land Use 565, Day Care Center.

2. Business type hotel utilized per ULI Shared Parking.

7. Shared Parking Calculations

Weekday Visitor

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR	TOTAL
6am	8	0	19	0	0	158	0	21	0	0	0	205
7am	39	0	38	0	0	149	1	12	0	2	2	242
8am	117	0	45	0	0	133	15	12	1	4	3	330
9am	273	0	56	0	0	116	46	21	1	4	3	520
10am	507	0	64	33	0	100	77	21	1	4	3	809
11am	663	0	68	89	0	100	35	24	1	4	3	985
12pm	741	20	75	167	0	91	12	18	1	4	3	1131
1pm	780	46	68	167	0	91	35	21	1	4	3	1214
2pm	741	56	38	144	0	100	77	21	1	4	3	1184
3pm	702	56	34	89	0	100	35	21	1	4	3	1044
4pm	702	56	34	111	0	108	12	24	1	4	3	1054
5pm	741	61	56	167	0	116	8	27	1	8	6	1191
6pm	741	61	60	211	0	125	4	30	2	11	10	1254
7pm	**741**	**82**	**60**	**222**	**0**	**125**	**2**	**27**	**3**	**19**	**16**	**1296**
8pm	624	102	60	222	0	133	1	24	3	19	16	1204
9pm	390	102	45	222	0	141	0	21	3	19	16	959
10pm	234	82	41	211	0	158	0	11	3	19	16	774
11pm	78	66	38	167	0	166	0	3	2	15	13	548
12am	0	41	19	56	0	166	0	0	2	10	8	300

Weekday Employee/Resident

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR	TOTAL
6am	19	0	7	0	18	2	29	2	28	206	178	488
7am	28	0	10	8	18	13	291	2	28	206	178	781
8am	76	0	12	20	18	38	728	2	28	206	178	1304
9am	142	0	12	30	18	38	922	2	28	206	178	1574
10am	161	0	13	36	18	42	970	2	28	206	178	1653
11am	180	0	13	36	18	42	970	2	28	206	178	1672
12pm	189	3	13	36	18	42	873	2	28	206	178	1588
1pm	189	4	13	36	18	42	873	2	28	206	178	1588
2pm	**189**	**4**	**13**	**36**	**18**	**42**	**970**	**2**	**28**	**206**	**178**	**1685**
3pm	189	5	10	30	18	42	970	2	28	206	178	1677
4pm	189	5	10	30	18	38	873	2	28	206	178	1576
5pm	180	6	12	40	18	29	485	2	28	206	178	1184
6pm	180	6	12	40	18	17	243	2	28	206	178	929
7pm	180	6	12	40	9	8	97	2	28	206	178	766
8pm	170	6	12	40	0	8	68	1	28	206	178	718
9pm	142	6	10	40	0	8	29	0	28	206	178	648
10pm	76	6	8	40	0	8	10	0	28	206	178	561
11pm	28	4	8	34	0	4	0	0	28	206	178	492
12am	0	3	5	14	0	2	0	0	28	206	178	436

Weekday Combined

	Retail	Cinema	Restaurant (Family)	Restaurant (Fine/Casual)	Daycare	Hotel	Office	Gym	Townhouse	2 BR	3 BR	TOTAL
6am	27	0	25	0	18	160	29	23	28	206	178	693
7am	67	0	47	8	18	162	292	14	28	208	180	1024
8am	193	0	57	20	18	171	743	14	29	210	181	1634
9am	415	0	68	30	18	154	968	23	29	210	181	2095
10am	668	0	77	69	18	142	1047	23	29	210	181	2462
11am	843	0	81	125	18	142	1005	26	29	210	181	2657
12pm	930	23	88	203	18	133	885	20	29	210	181	2719
1pm	969	50	81	203	18	133	908	23	29	210	181	2803
2pm	**930**	**60**	**51**	**180**	**18**	**142**	**1047**	**23**	**29**	**210**	**181**	**2869**
3pm	891	61	44	119	18	142	1005	23	29	210	181	2720
4pm	891	61	44	141	18	146	885	26	29	210	181	2629
5pm	921	67	69	207	18	146	493	29	29	214	184	2375
6pm	921	67	72	251	18	141	246	32	30	217	188	2183
7pm	921	88	72	262	9	133	99	29	31	225	194	2061
8pm	794	108	72	262	0	141	69	25	31	225	194	1921
9pm	532	108	55	262	0	150	29	21	31	225	194	1607
10pm	310	88	50	251	0	166	10	11	31	225	194	1335
11pm	106	71	46	201	0	170	0	3	30	221	191	1039
12am	0	44	23	70	0	168	0	0	30	216	186	736

8. Peak Parking Demand

Commercial and Hotel Uses	Visitor	Empl./Res.	Total
Retail	741	189	930
Cinema	56	4	60
Restaurant (Family)	38	13	51
Restaurant (Fine/Casual)	144	36	180
Daycare	0	18	18
Hotel	100	42	142
Office	77	970	1047
Gym	21	2	23
Residential Uses			
Townhouse	1	28	29
2 BR	4	206	210
3 BR	3	178	181

Commercial and Hotel Uses	Visitor	Empl./Res.	Total	Trip Reduction
Retail	705	171	876	Y
Cinema	53	3	57	Y
Restaurant (Family)	36	12	47	Y
Restaurant (Fine/Casual)	137	33	170	Y
Daycare	0	16	16	Y
Hotel	95	38	133	Y
Office	73	877	950	Y
Gym	20	1	21	Y
Residential Uses				
Townhouse	1	28	29	N
2 BR	4	186	190	Y
3 BR	3	161	164	Y

SHARED PEAK PARKING DEMAND	Visitor	Empl./Res.	Total
	1,184	1,685	**2,869**
			10%
			reduction

SHARED PEAK PARKING DEMAND W/ TRIP REDUCTIONS	Visitor	Empl./Res.	Total
	1,127	1,526	**2,653**
			17%
			reduction

City of Coral Gables	Visitor	Empl./Res.	Total
Single Use Demand	1,490	1,692	3,182