CORAL MOUNTAIN RESORT

DRAFT EIR

SCH# 2021020310

TECHNICAL APPENDICES

Trip Generation Comparison With VMT Analysis & Air Quality and GHG Comparison Appendix N

June 2021

URBAN CROSSROADS

urbanxroads.com

May 26, 2021

Ms. Michelle Witherspoon
MSA Consulting
34200 Bob Hope Drive
Rancho Mirage, CA 92270

SUBJECT: CORAL MOUNTAIN ALTERNATIVES - TRIP GENERATION AND AIR QUALITY AND GREENHOUSE GAS COMPARISON

Dear Ms. Michelle Witherspoon:

Urban Crossroads, Inc. is pleased to submit this summary of trip generation associated with potential Coral Mountain Specific Plan Project Alternatives. The Five alternatives to the Coral Mountain Specific Plan include the following:

1. Alternative 1: No Project/No Build

Under the No Project/No Build Alternative ("Alternative 1"), the project would remain in its current and existing vacant condition. No significant trip generation and consequently air quality or greenhouse gas emissions are anticipated to occur for this alternative.

2. Alternative 2: No Project/Existing Entitlements

Under the No Project/Existing Entitlements Alternative ("Alternative 2"), the project site would be developed as designated with the following land use designations as established by the Andalusia at Coral Mountain Specific Plan (SP 03-067), as amended, and the La Quinta General Plan land use map. Under SP 03-067 the property would develop approximately 8.4 acres of commercial use, 204.2 acres of low-density residential uses, and 171.9 acres for golf course use, as indicated in the table below.

Existing Land Use and Zoning Summary

Existing Land Use	Existing Zoning	Acres
General Commercial	Neighborhood Commercial (CN)	8.4
Low Density Residential	Low Density Residential (RL)	204.2
Open Space (Recreation)	Golf Course (GC)	171.9
Total		**384.5 acres**

For trip generation purposes, Alternative 2 is estimated based on 750 dwelling units (DU) of low density residential, 60,000 square feet (sf) commercial retail, and 18-hole golf course.

3. Alternative 3, Reduced Density

Under the Reduced Density Alternative ("Alternative 3"), the project would be reduced by one-third of the proposed density of the project. Therefore, this Reduced Density Alternative would develop 400 residential dwelling units, 100 resort/hotel rooms, 38,000 square feet of resort commercial uses, and 40,000 square feet of neighborhood commercial uses. The Wave Basin and other proposed recreational amenities would remain part of the project as presently proposed.

For trip generation purposes, the following land uses have been utilized:

- 331 DU - Single-Family Detached Residential
- 69 DU - Multi-Family Residential
- 100 Rooms - Resort Hotel
- 40,000 SF – Commercial Retail
- 12 Acre - Wave Basin (no change from proposed Project)
- 10,000 SF - Wave Village
- 11,000 SF - The Farm

4. Alternative 4, Golf/Resort Hotel

Under the Golf/Resort Hotel Alternative ("Alternative 4"), the project would be developed with a resort hotel of 150 hotel rooms and associated recreational, restaurant and retail amenities, an 18-hole championship golf course that would be open to the public to play on a daily fee basis, and 600 low-density residential units.

Alternative 4 trip generation is estimated based on 600 dwelling units (DU) of low density residential, 150 room resort hotel, and 18 hole golf course.

5. Alternative 5, The Lake Amenity/No Hotel

Under the Lake Amenity Alternative ("Alternative 5"), the project would be developed with a lake amenity instead of the wave basin, and would include 750 low-density residential units and 8.4 acres of commercial uses at the northeast corner of the property, consistent with the existing entitlements for the project site. The lake would be approximately 75 acres, and would be used for typical lake uses, including small electric boats, sailing, kayaking and paddle boarding (but not gas-powered boats or recreational watercraft). This alternative would not have the hotel or other Tourist Commercial uses and would not have the occasional special events that would be associated with the wave basin.

Alternative 5 trip generation is estimated based on 750 dwelling units (DU) of low density residential, 60,000 sf of commercial retail, and 75 acre (AC) lake.

PROJECT TRIP GENERATION AND EMISSIONS COMPARISON

In order to compare the traffic characteristics of the proposed Project provided in the *Coral Mountain Specific Plan Traffic Impact Analysis (TIA)*, October 27, 2020 and the proposed Project Alternatives, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation (10th Edition, 2017) manual are utilized.

ITE trip generation rates for Single Family Detached Residential (Code 210), Multifamily Housing (Code 220), Resort Hotel (Code 330), and Shopping Center (Code 820) are used. The wave basin is a private facility. Trip generation rates for the Wave Basin Facility from the San Diego Association of Governments recreational park (developed) rates appropriately account for this private facility. For the Wave Village area, ITE land use code 861 (sporting goods store) has been utilized and the Farm area, ITE land use code 495 (recreational community center) has been utilized. Trip generation rates for golf course (Code 430) has been utilized for Project Alternative uses. For the Lake, ITE 9th edition rates for ITE Code 417 have been utilized for this private open space amenity.

Table 1 presents the trip generation rates and resulting trip generation summary for the proposed Project (consistent with the TIA). As shown on Table 1, the proposed Project is anticipated to generate a net total of 6,994 external trip-ends per day on a typical weekday with 447 external vehicles per hour (VPH) during the weekday AM peak hour and 638 external VPH during the weekday PM peak hour.

Project alternative 2 (No Project/Existing Entitlements) is shown on Table 2. The Project alternative is anticipated to generate a net total of 7,923 external trip-ends per day on a typical weekday with 589 external vehicles per hour (VPH) during the weekday AM peak hour and 829 external VPH during the weekday PM peak hour. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. In addition, this Alternative is anticipated to have a higher daily VMT and per capita VMT because it generates more daily trips and lacks the complimentary mix of uses and enhanced connectivity between those uses which reduce per capita VMT.

Project alternative 3 (Reduced Density) is shown on Table 3. The Project alternative is anticipated to generate a net total of 4,600 external trip-ends per day on a typical weekday with 293 external vehicles per hour (VPH) during the weekday AM peak hour and 412 external VPH during the weekday PM peak hour. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative may have a reduced per capita VMT because the reduced number of homes is presented in a mixed use context, but this reduction cannot be confirmed or quantified without a full set of VMT model runs, which is beyond the scope of this Alternatives analysis and the requirements of CEQA Guidelines Section 15126.6(d).

Project alternative 4 (The Golf/Resort Hotel) is shown on Table 4. The Project alternative is anticipated to generate a net total of 6,799 external trip-ends per day on a typical weekday with 496 external

vehicles per hour (VPH) during the weekday AM peak hour and 664 external VPH during the weekday PM peak hour. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative is expected to have a higher total VMT on a per capita basis because this Alternative removes the project's neighborhood-serving commercial uses that would reduce the length of vehicle trips for the residents of this project and the surrounding communities (who would need to drive further for those commercial amenities under this Alternative).

Project alternative 5 (The Lake/No Hotel) is shown on Table 5. The Project alternative is anticipated to generate a net total of 7,911 external trip-ends per day on a typical weekday with 573 external vehicles per hour (VPH) during the weekday AM peak hour and 805 external VPH during the weekday PM peak hour. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative may have a higher total VMT on a daily and per capita basis because it generates more trips per day and lacks on-site complementary resort accommodations, but this increase cannot be confirmed or quantified without a full set of VMT model runs, which is beyond the scope of this Alternatives analysis and the requirements of CEQA Guidelines Section 15126.6(d).

CONCLUSIONS

Based on the comparison results presented on Table 6, the potential Project land use alternatives are estimated to generate the following differences when compared to the proposed Project provided in TIA, AQ, and GHG:

- Alternative 1: No Project/No Build
  - No trips are generated, no air quality or greenhouse gas emissions would occur.

- Alternative 2: No Project/Existing Entitlements
  - 929 more external trip-ends per day, 142 more AM peak hour external trips, and 191 more PM peak hour external trips. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative is also anticipated to have a higher daily VMT and per capita VMT.

- Alternative 3: Reduced Density
  - 2,394 fewer external trip-ends per day, 154 fewer AM peak hour external trips, and 226 fewer PM peak hour external trips. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the

decrease in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative may have a reduced per capita VMT because the reduced number of homes is presented in a mixed-use context.

- Alternative 4: The Golf/Resort Hotel
  - 195 fewer external trip-ends per day, 49 more AM peak hour external trips, and 26 more PM peak hour external trips. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative is expected to have a higher total VMT on a per capita basis because it removes the project's neighborhood-serving commercial uses.

- Alternative 5: The Lake/No Hotel
  - 917 more external trip-ends per day, 126 more AM peak hour external trips, and 167 more PM peak hour external trips. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. This Alternative may have a higher total VMT on a daily and per capita basis because it generates more trips per day and lacks on-site complementary resort accommodations.

As shown in Table 6, Alternative 2 (No Project/Existing Entitlements) presents the most intense scenario for daily and peak hour trip generation and consequently emissions associated with air quality and greenhouse gases.

If you have any questions, please contact John Kain at (949) 375-2435 or Haseeb Qureshi (714) 612-6664.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain, AICP
Principal

Haseeb Qureshi
Associate Principal

TABLE 1: PROPOSED PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	496 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Multifamily Housing (Low-Rise)	220	104 DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	150 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Wave Basin Facility[6] (Back of house wave operations included)	-[4]	12 AC	1.20	0.80	2.00	2.40	1.60	4.00	50.00
Wave Village (Studio/Retail)[7] (with shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club)	861	15 TSF	0.27	0.07	0.34	0.97	1.05	2.02	28.75
The Farm (Recreational Area/Clubhouse)[8] (with Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms)	495	16 TSF	1.16	0.60	1.76	1.09	1.22	2.31	28.82

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	496 DU	94	273	367	308	184	492	4,682
Multifamily Housing (Low-Rise)	220	104 DU	11	36	47	36	22	58	761
Internal to Retail/Resort			*(14)*	*(26)*	*(40)*	*(50)*	*(38)*	*(88)*	*(771)*
Residential External Trips			91	283	374	294	168	462	4,672
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Resort			*(9)*	*(7)*	*(16)*	*(21)*	*(35)*	*(56)*	*(560)*
Shopping Center External Trips			19	8	27	61	56	117	1,139
Resort Hotel	330	150 RM	41	15	56	30	41	71	1,181
Internal to Residential/Retail			*(17)*	*(14)*	*(31)*	*(23)*	*(28)*	*(51)*	*(612)*
Resort Hotel External Trips			24	1	25	7	13	20	569
Wave Basin Facility	-[4]	12 AC	14	10	24	29	19	48	600
Internal to Residential/Retail/Resort			*(12)*	*(8)*	*(20)*	*(26)*	*(17)*	*(43)*	*(470)*
Wave Basin Facility External Trips			2	2	4	3	2	5	130
Wave Village	861	15 TSF	3	2	5	16	15	31	431
Internal to Residential/Resort			*(1)*	*(1)*	*(2)*	*(7)*	*(7)*	*(14)*	*(168)*
Wave Village External Trips			2	1	3	9	8	17	263
The Farm	495	16 TSF	18	11	29	18	19	37	461
Internal to Residential/Resort			*(9)*	*(6)*	*(15)*	*(9)*	*(11)*	*(20)*	*(240)*
The Farm External Trips			9	5	14	9	8	17	221
Project Subtotal			216	369	585	547	419	966	10,381
Internal Capture Subtotal			*(62)*	*(62)*	*(124)*	*(136)*	*(136)*	*(272)*	*(2,821)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**147**	**300**	**447**	**383**	**255**	**638**	**6,994**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[3] Pass-By Source: Shops at Coral Mountain TIA, prepared by Urban Crossroads, Inc. (November 2009).

[4] Since ITE does not have trip rates for a wave pool facility, similar use based on SANDAG's recreation park (developed) peak hour and daily rates are utilized.

[5] Hotel trip rates account for 23.5 tsf of ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

[6] The Wave Basin Facility trip rates account for pool area and 1.5 tsf of back of house wave operations.

[7] Wave Village trip rates account for 15 tsf of ancillary facilities which include shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club.

[8] The Farm trip rates account for 16 tsf of ancillary facilities which include Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms.

[9] The 1 tsf back of house guardhouse use is accounted for in the Project rates.

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TABLE 2: ALTERNATIVE 2 , NO PROJECT/EXISTING ENTITLEMENTS TRIP GENERATION SUMMARY

Trip Generation Rates[1]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Golf Course	430	18 HOLES	1.39	0.37	1.76	1.54	1.37	2.91	30.38

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	143	413	556	465	278	743	7,080
Internal to Retail/Golf Course			*(5)*	*(11)*	*(16)*	*(25)*	*(24)*	*(49)*	*(429)*
Residential External Trips			138	402	540	440	254	694	6,651
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Golf Course			*(9)*	*(6)*	*(15)*	*(28)*	*(31)*	*(59)*	*(590)*
Shopping Center External Trips			19	9	28	54	60	114	1,109
Golf Course	430	18 HOLES	25	7	32	28	25	53	547
Internal to Residential/Retail			*(7)*	*(4)*	*(11)*	*(17)*	*(15)*	*(32)*	*(384)*
Golf Course External Trips			18	3	21	11	10	21	163
Project Subtotal			203	442	645	603	422	1,025	9,892
Internal Capture Subtotal			*(21)*	*(21)*	*(42)*	*(70)*	*(70)*	*(140)*	*(1,403)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**175**	**414**	**589**	**505**	**324**	**829**	**7,923**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

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TABLE 3: ALTERNATIVE 3, REDUCED DENSITY TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]										
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	331 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Multifamily Housing (Low-Rise)	220	69 DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	100 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Shopping Center	820	40 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Wave Basin Facility[6] (Back of house wave operations included)	-[4]	12 AC	1.20	0.80	2.00	2.40	1.60	4.00	50.00
Wave Village (Studio/Retail)[7] (with shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club)	861	10 TSF	0.27	0.07	0.34	0.97	1.05	2.02	28.75
The Farm (Recreational Area/Clubhouse)[8] (with Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms)	495	11 TSF	1.16	0.60	1.76	1.09	1.22	2.31	28.82

Trip Generation Results									
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	331 DU	63	182	245	205	122	327	3,125
Multifamily Housing (Low-Rise)	220	69 DU	8	24	32	24	14	38	505
Internal to Retail/Resort			*(8)*	*(23)*	*(31)*	*(39)*	*(30)*	*(69)*	*(604)*
Residential External Trips			63	183	246	190	106	296	3,026
Shopping Center	820	40 TSF	23	14	37	73	79	152	1,510
Pass-By (25%)			*(4)*	*(4)*	*(8)*	*(19)*	*(19)*	*(38)*	*(378)*
Internal to Residential/Resort			*(7)*	*(5)*	*(12)*	*(11)*	*(25)*	*(36)*	*(360)*
Shopping Center External Trips			12	5	17	43	35	78	772
Resort Hotel	330	100 RM	27	10	37	20	27	47	787
Internal to Residential/Retail			*(15)*	*(8)*	*(23)*	*(16)*	*(21)*	*(37)*	*(444)*
Resort Hotel External Trips			12	2	14	4	6	10	343
Wave Basin Facility	-[4]	12 AC	14	10	24	29	19	48	600
Internal to Residential/Retail/Resort			*(12)*	*(8)*	*(20)*	*(26)*	*(17)*	*(43)*	*(470)*
Wave Basin Facility External Trips			2	2	4	3	2	5	130
Wave Village	861	10 TSF	2	2	4	11	10	21	288
Internal to Residential/Resort			*(1)*	*(1)*	*(2)*	*(5)*	*(5)*	*(10)*	*(120)*
Wave Village External Trips			1	1	2	6	5	11	168
The Farm	495	11 TSF	12	8	20	13	12	25	317
Internal to Residential/Resort			*(6)*	*(4)*	*(10)*	*(7)*	*(6)*	*(13)*	*(156)*
The Farm External Trips			6	4	10	6	6	12	161
Project Subtotal			149	250	399	375	283	658	7,132
Internal Capture Subtotal			*(49)*	*(49)*	*(98)*	*(104)*	*(104)*	*(208)*	*(2,154)*
Pass-By (Shopping Center)			*(4)*	*(4)*	*(8)*	*(19)*	*(19)*	*(38)*	*(378)*
Project Total External Trips			**96**	**197**	**293**	**252**	**160**	**412**	**4,600**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[3] Pass-By Source: Shops at Coral Mountain TIA, prepared by Urban Crossroads, Inc. (November 2009).

[4] Since ITE does not have trip rates for a wave pool facility, similar use based on SANDAG's recreation park (developed) peak hour and daily rates are utilized.

[5] Hotel trip rates account for 15.7 tsf of ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

[6] The Wave Basin Facility trip rates account for pool area and 1 tsf of back of house wave operations.

[7] Wave Village trip rates account for 10 tsf of ancillary facilities which include shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club.

[8] The Farm trip rates account for 11 tsf of ancillary facilities which include Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms.

[9] The 1 tsf back of house guardhouse use is accounted for in the Project rates.

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TABLE 4: ALTERNATIVE 4, THE GOLF/RESORT HOTEL TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	600 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	150 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Golf Course	430	18 HOLES	1.39	0.37	1.76	1.54	1.37	2.91	30.38

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	600 DU	114	330	444	372	222	594	5,664
Internal to Retail/Resort			*(3)*	*(9)*	*(12)*	*(9)*	*(8)*	*(17)*	*(149)*
Residential External Trips			111	321	432	363	214	577	5,515
Resort Hotel	330	150 RM	41	15	56	30	41	71	1,181
Internal to Residential/Golf Course			*(7)*	*(7)*	*(14)*	*(10)*	*(11)*	*(21)*	*(252)*
Golf Course	430	18 HOLES	25	7	32	28	25	53	547
Internal to Residential/Resort			*(8)*	*(2)*	*(10)*	*(8)*	*(8)*	*(16)*	*(192)*
Wave Village External Trips			17	5	22	20	17	37	355
Project Subtotal			180	352	532	430	288	718	7,392
Internal Capture Subtotal			*(18)*	*(18)*	*(36)*	*(27)*	*(27)*	*(54)*	*(593)*
Project Total External Trips			**162**	**334**	**496**	**403**	**261**	**664**	**6,799**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[5] Hotel trip rates account for ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

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TABLE 5: ALTERNATIVE 5, THE LAKE AMENITY/NO HOTEL TRIP GENERATION SUMMARY

Trip Generation Rates[1]										
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Regional Park (Lake)[3]	417	75 AC	--	--	--	0.09	0.11	0.20	4.57

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	143	413	556	465	278	743	7,080
Internal to Retail/Regonal Park (Lake)			*(5)*	*(8)*	*(13)*	*(30)*	*(27)*	*(57)*	*(499)*
Residential External Trips			138	405	543	435	251	686	6,581
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Regonal Park (Lake)			*(8)*	*(5)*	*(13)*	*(28)*	*(30)*	*(58)*	*(580)*
Shopping Center External Trips			20	10	30	54	61	115	1,119
Regional Park (Lake)	417	75 AC	-	-	-	7	8	15	343
Internal to Residential/Retail			-	-	-	*(5)*	*(6)*	*(11)*	*(132)*
Golf Course External Trips			-	-	-	2	2	4	211
Project Subtotal			178	435	613	582	405	987	9,688
Internal Capture Subtotal			*(13)*	*(13)*	*(26)*	*(63)*	*(63)*	*(126)*	*(1,211)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**158**	**415**	**573**	**491**	**314**	**805**	**7,911**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

[3] Since the current ITE does not have trip rates for a Regional Park (Lake), ITE 9th edition rates have been uitlized.

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TABLE 6: PROJECT TRIP GENERATION COMPARISON SUMMARY

Land Use[1]	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Alternative 1 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
No Project/No Build Alternative	0	0	0	0	0	0	0
ALTERNATIVE 1 DELTA (Alternative - TIA)	**-147**	**-300**	**-447**	**-383**	**-255**	**-638**	**-6,994**
Alternative 2 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
No Project/Existing Entitlements Alternative *- 750 DU SFDR, 60 TSF Retail, 18 Hole Golf Course*	175	414	589	505	324	829	7,923
ALTERNATIVE 2 DELTA (Alternative - TIA)	**28**	**114**	**142**	**122**	**69**	**191**	**929**
Alternative 3 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
Reduced Density *- 331 DU SFDR, 69 DU MF, 100 RM Hotel, 40 TSF Retail, 12 AC Wave Basin Facility, 10 TSF Wave Village, 11 TSF The Farm*	96	197	293	252	160	412	4,600
ALTERNATIVE 3 DELTA (Alternative - TIA)	**-51**	**-103**	**-154**	**-131**	**-95**	**-226**	**-2,394**
Alternative 4 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
The Golf/Resort Hotel Alternative *- 600 DU SFDR, 150 RM Hotel, 18 Hole Golf Course*	162	334	496	403	261	664	6,799
ALTERNATIVE 4 DELTA (Alternative - TIA)	**15**	**34**	**49**	**20**	**6**	**26**	**-195**
Alternative 5 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
The Lake Amenity/No Hotel Alternative *- 750 DU SFDR, 60 TSF Retail, 75 AC Regional Park (Lake)*	158	415	573	491	314	805	7,911
ALTERNATIVE 5 DELTA (Alternative - TIA)	**11**	**115**	**126**	**108**	**59**	**167**	**917**

[1] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet; AC = Acre;
SFDR = Single Family Detached Residential; MF = Multi Family Residential

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URBAN CROSSROADS

urbanxroads.com

April 12, 2021

Ms. Michelle Witherspoon
MSA Consulting
34200 Bob Hope Drive
Rancho Mirage, CA 92270

SUBJECT: CORAL MOUNTAIN ALTERNATIVES - TRIP GENERATION AND AIR QUALITY AND GREENHOUSE GAS COMPARISON

Dear Ms. Michelle Witherspoon:

Urban Crossroads, Inc. is pleased to submit this summary of trip generation associated with potential Coral Mountain Specific Plan Project Alternatives. The Five alternatives to the Coral Mountain Specific Plan include the following:

1. Alternative 1: No Project/No Build

Under the No Project/No Build Alternative ("Alternative 1"), the project would remain in its current and existing vacant condition. No significant trip generation and consequently air quality or greenhouse gas emissions are anticipated to occur for this alternative.

2. Alternative 2: No Project/Existing Entitlements

Under the No Project/Existing Entitlements Alternative ("Alternative 2"), the project site would be developed as designated with the following land use designations as established by the Andalusia at Coral Mountain Specific Plan (SP 03-067), as amended, and the La Quinta General Plan land use map. Under SP 03-067 the property would develop approximately 8.4 acres of commercial use, 204.2 acres of low-density residential uses, and 171.9 acres for golf course use, as indicated in the table below.

Existing Land Use and Zoning Summary

Existing Land Use	Existing Zoning	Acres
General Commercial	Neighborhood Commercial (CN)	8.4
Low Density Residential	Low Density Residential (RL)	204.2
Open Space (Recreation)	Golf Course (GC)	171.9
Total		**384.5 acres**

For trip generation purposes, Alternative 2 is estimated based on 750 dwelling units (DU) of low density residential, 60,000 square feet (sf) commercial retail, and 18-hole golf course.

3. Alternative 3, Reduced Density

Under the Reduced Density Alternative ("Alternative 3"), the project would be reduced by one-third of the proposed density of the project. Therefore, this Reduced Density Alternative would develop 400 residential dwelling units, 100 resort/hotel rooms, 38,000 square feet of resort commercial uses, and 40,000 square feet of neighborhood commercial uses. The Wave Basin and other proposed recreational amenities would remain part of the project as presently proposed.

For trip generation purposes, the following land uses have been utilized:

- 331 DU - Single-Family Detached Residential
- 69 DU - Multi-Family Residential
- 100 Rooms - Resort Hotel
- 40,000 SF – Commercial Retail
- 12 Acre - Wave Basin (no change from proposed Project)
- 10,000 SF - Wave Village
- 11,000 SF - The Farm

4. Alternative 4, Golf/Resort Hotel

Under the Golf/Resort Hotel Alternative ("Alternative 4"), the project would be developed with a resort hotel of 150 hotel rooms and associated recreational, restaurant and retail amenities, an 18-hole championship golf course that would be open to the public to play on a daily fee basis, and 600 low-density residential units.

Alternative 4 trip generation is estimated based on 600 dwelling units (DU) of low density residential, 150 room resort hotel, and 18 hole golf course.

5. Alternative 5, The Lake Amenity/No Hotel

Under the Lake Amenity Alternative ("Alternative 5"), the project would be developed with a lake amenity instead of the wave basin, and would include 750 low-density residential units and 8.4 acres of commercial uses at the northeast corner of the property, consistent with the existing entitlements for the project site. The lake would be approximately 75 acres, and would be used for typical lake uses, including small electric boats, sailing, kayaking and paddle boarding (but not gas-powered boats or recreational watercraft). This alternative would not have the hotel or other Tourist Commercial uses and would not have the occasional special events that would be associated with the wave basin.

Alternative 5 trip generation is estimated based on 750 dwelling units (DU) of low density residential, 60,000 sf of commercial retail, and 75 acre (AC) lake.

PROJECT TRIP GENERATION AND EMISSIONS COMPARISON

In order to compare the traffic characteristics of the proposed Project provided in the *Coral Mountain Specific Plan Traffic Impact Analysis (TIA)*, October 27, 2020 and the proposed Project Alternatives, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation (10th Edition, 2017) manual are utilized.

ITE trip generation rates for Single Family Detached Residential (Code 210), Multifamily Housing (Code 220), Resort Hotel (Code 330), and Shopping Center (Code 820) are used. The wave basin is a private facility. Trip generation rates for the Wave Basin Facility from the San Diego Association of Governments recreational park (developed) rates appropriately account for this private facility. For the Wave Village area, ITE land use code 861 (sporting goods store) has been utilized and the Farm area, ITE land use code 495 (recreational community center) has been utilized. Trip generation rates for golf course (Code 430) has been utilized for Project Alternative uses. For the Lake, ITE 9th edition rates for ITE Code 417 have been utilized for this private open space amenity.

Table 1 presents the trip generation rates and resulting trip generation summary for the proposed Project (consistent with the TIA). As shown on Table 1, the proposed Project is anticipated to generate a net total of 6,994 external trip-ends per day on a typical weekday with 447 external vehicles per hour (VPH) during the weekday AM peak hour and 638 external VPH during the weekday PM peak hour.

Project alternative 2 (No Project/Existing Entitlements) is shown on Table 2. The proposed Project alternative is anticipated to generate a net total of 7,923 external trip-ends per day on a typical weekday with 589 external vehicles per hour (VPH) during the weekday AM peak hour and 829 external VPH during the weekday PM peak hour. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources.

Project alternative 3 (Reduced Density) is shown on Table 3. The proposed Project alternative is anticipated to generate a net total of 4,600 external trip-ends per day on a typical weekday with 293 external vehicles per hour (VPH) during the weekday AM peak hour and 412 external VPH during the weekday PM peak hour. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

Project alternative 4 (The Golf/Resort Hotel) is shown on Table 4. The proposed Project alternative is anticipated to generate a net total of 6,799 external trip-ends per day on a typical weekday with 496 external vehicles per hour (VPH) during the weekday AM peak hour and 664 external VPH during the weekday PM peak hour. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

Project alternative 5 (The Lake/No Hotel) is shown on Table 5. The proposed Project alternative is anticipated to generate a net total of 7,911 external trip-ends per day on a typical weekday with 573 external vehicles per hour (VPH) during the weekday AM peak hour and 805 external VPH during the weekday PM peak hour. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources.

CONCLUSIONS

Based on the comparison results presented on Table 6, the potential Project land use alternatives are estimated to generate the following differences when compared to the proposed Project provided in TIA, AQ, and GHG:

- Alternative 1: No Project/No Build
  - No trips are generated, no air quality or greenhouse gas emissions would occur.

- Alternative 2: No Project/Existing Entitlements
  - 929 more external trip-ends per day, 142 more AM peak hour external trips, and 191 more PM peak hour external trips. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

- Alternative 3: Reduced Density
  - 2,394 fewer external trip-ends per day, 154 fewer AM peak hour external trips, and 226 fewer PM peak hour external trips. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

- Alternative 4: The Golf/Resort Hotel
  - 195 fewer external trip-ends per day, 49 more AM peak hour external trips, and 26 more PM peak hour external trips. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

- Alternative 5: The Lake/No Hotel
  - 917 more external trip-ends per day, 126 more AM peak hour external trips, and 167 more PM peak hour external trips. Due to the increase in trip generation, the total air quality and greenhouse gas operational emissions would increase (proportional to the increase in daily trips) since the majority of operational emissions are associated with mobile sources. Due to the decrease in trip generation, the total air quality and greenhouse gas operational emissions would decrease (proportional to the decrease in daily trips) since the majority of operational emissions are associated with mobile sources.

As shown in Table 6, Alternative 2 (No Project/Existing Entitlements) presents the most conservative scenario for daily and peak hour trip generation and consequently emissions associated with air quality and greenhouse gases.

If you have any questions, please contact John Kain at (949) 375-2435 or Haseeb Qureshi (714) 612-6664.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain, AICP
Principal

Haseeb Qureshi
Associate Principal

TABLE 1: PROPOSED PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]										
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	496 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Multifamily Housing (Low-Rise)	220	104 DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	150 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Wave Basin Facility[6] (Back of house wave operations included)	-[4]	12 AC	1.20	0.80	2.00	2.40	1.60	4.00	50.00
Wave Village (Studio/Retail)[7] (with shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club)	861	15 TSF	0.27	0.07	0.34	0.97	1.05	2.02	28.75
The Farm (Recreational Area/Clubhouse)[8] (with Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms)	495	16 TSF	1.16	0.60	1.76	1.09	1.22	2.31	28.82

Trip Generation Results									
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached	210	496 DU	94	273	367	308	184	492	4,682
Multifamily Housing (Low-Rise)	220	104 DU	11	36	47	36	22	58	761
Internal to Retail/Resort			*(14)*	*(26)*	*(40)*	*(50)*	*(38)*	*(88)*	*(771)*
Residential External Trips			91	283	374	294	168	462	4,672
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Resort			*(9)*	*(7)*	*(16)*	*(21)*	*(35)*	*(56)*	*(560)*
Shopping Center External Trips			19	8	27	61	56	117	1,139
Resort Hotel	330	150 RM	41	15	56	30	41	71	1,181
Internal to Residential/Retail			*(17)*	*(14)*	*(31)*	*(23)*	*(28)*	*(51)*	*(612)*
Resort Hotel External Trips			24	1	25	7	13	20	569
Wave Basin Facility	-[4]	12 AC	14	10	24	29	19	48	600
Internal to Residential/Retail/Resort			*(12)*	*(8)*	*(20)*	*(26)*	*(17)*	*(43)*	*(470)*
Wave Basin Facility External Trips			2	2	4	3	2	5	130
Wave Village	861	15 TSF	3	2	5	16	15	31	431
Internal to Residential/Resort			*(1)*	*(1)*	*(2)*	*(7)*	*(7)*	*(14)*	*(168)*
Wave Village External Trips			2	1	3	9	8	17	263
The Farm	495	16 TSF	18	11	29	18	19	37	461
Internal to Residential/Resort			*(9)*	*(6)*	*(15)*	*(9)*	*(11)*	*(20)*	*(240)*
The Farm External Trips			9	5	14	9	8	17	221
Project Subtotal			216	369	585	547	419	966	10,381
Internal Capture Subtotal			*(62)*	*(62)*	*(124)*	*(136)*	*(136)*	*(272)*	*(2,821)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**147**	**300**	**447**	**383**	**255**	**638**	**6,994**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[3] Pass-By Source: Shops at Coral Mountain TIA, prepared by Urban Crossroads, Inc. (November 2009).

[4] Since ITE does not have trip rates for a wave pool facility, similar use based on SANDAG's recreation park (developed) peak hour and daily rates are utilized.

[5] Hotel trip rates account for 23.5 tsf of ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

[6] The Wave Basin Facility trip rates account for pool area and 1.5 tsf of back of house wave operations.

[7] Wave Village trip rates account for 15 tsf of ancillary facilities which include shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club.

[8] The Farm trip rates account for 16 tsf of ancillary facilities which include Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms.

[9] The 1 tsf back of house guardhouse use is accounted for in the Project rates.

TABLE 2: ALTERNATIVE 2 , NO PROJECT/EXISTING ENTITLEMENTS TRIP GENERATION SUMMARY

Trip Generation Rates[1]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Golf Course	430	18 HOLES	1.39	0.37	1.76	1.54	1.37	2.91	30.38

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	143	413	556	465	278	743	7,080
Internal to Retail/Golf Course			*(5)*	*(11)*	*(16)*	*(25)*	*(24)*	*(49)*	*(429)*
Residential External Trips			138	402	540	440	254	694	6,651
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Golf Course			*(9)*	*(6)*	*(15)*	*(28)*	*(31)*	*(59)*	*(590)*
Shopping Center External Trips			19	9	28	54	60	114	1,109
Golf Course	430	18 HOLES	25	7	32	28	25	53	547
Internal to Residential/Retail			*(7)*	*(4)*	*(11)*	*(17)*	*(15)*	*(32)*	*(384)*
Golf Course External Trips			18	3	21	11	10	21	163
Project Subtotal			203	442	645	603	422	1,025	9,892
Internal Capture Subtotal			*(21)*	*(21)*	*(42)*	*(70)*	*(70)*	*(140)*	*(1,403)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**175**	**414**	**589**	**505**	**324**	**829**	**7,923**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

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TABLE 3: ALTERNATIVE 3, REDUCED DENSITY TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]										
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	331 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Multifamily Housing (Low-Rise)	220	69 DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	100 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Shopping Center	820	40 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Wave Basin Facility[6] (Back of house wave operations included)	-[4]	12 AC	1.20	0.80	2.00	2.40	1.60	4.00	50.00
Wave Village (Studio/Retail)[7] (with shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club)	861	10 TSF	0.27	0.07	0.34	0.97	1.05	2.02	28.75
The Farm (Recreational Area/Clubhouse)[8] (with Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms)	495	11 TSF	1.16	0.60	1.76	1.09	1.22	2.31	28.82

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	331 DU	63	182	245	205	122	327	3,125
Multifamily Housing (Low-Rise)	220	69 DU	8	24	32	24	14	38	505
Internal to Retail/Resort			*(8)*	*(23)*	*(31)*	*(39)*	*(30)*	*(69)*	*(604)*
Residential External Trips			63	183	246	190	106	296	3,026
Shopping Center	820	40 TSF	23	14	37	73	79	152	1,510
Pass-By (25%)			*(4)*	*(4)*	*(8)*	*(19)*	*(19)*	*(38)*	*(378)*
Internal to Residential/Resort			*(7)*	*(5)*	*(12)*	*(11)*	*(25)*	*(36)*	*(360)*
Shopping Center External Trips			12	5	17	43	35	78	772
Resort Hotel	330	100 RM	27	10	37	20	27	47	787
Internal to Residential/Retail			*(15)*	*(8)*	*(23)*	*(16)*	*(21)*	*(37)*	*(444)*
Resort Hotel External Trips			12	2	14	4	6	10	343
Wave Basin Facility	-[4]	12 AC	14	10	24	29	19	48	600
Internal to Residential/Retail/Resort			*(12)*	*(8)*	*(20)*	*(26)*	*(17)*	*(43)*	*(470)*
Wave Basin Facility External Trips			2	2	4	3	2	5	130
Wave Village	861	10 TSF	2	2	4	11	10	21	288
Internal to Residential/Resort			*(1)*	*(1)*	*(2)*	*(5)*	*(5)*	*(10)*	*(120)*
Wave Village External Trips			1	1	2	6	5	11	168
The Farm	495	11 TSF	12	8	20	13	12	25	317
Internal to Residential/Resort			*(6)*	*(4)*	*(10)*	*(7)*	*(6)*	*(13)*	*(156)*
The Farm External Trips			6	4	10	6	6	12	161
Project Subtotal			149	250	399	375	283	658	7,132
Internal Capture Subtotal			*(49)*	*(49)*	*(98)*	*(104)*	*(104)*	*(208)*	*(2,154)*
Pass-By (Shopping Center)			*(4)*	*(4)*	*(8)*	*(19)*	*(19)*	*(38)*	*(378)*
Project Total External Trips			**96**	**197**	**293**	**252**	**160**	**412**	**4,600**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[3] Pass-By Source: Shops at Coral Mountain TIA, prepared by Urban Crossroads, Inc. (November 2009).

[4] Since ITE does not have trip rates for a wave pool facility, similar use based on SANDAG's recreation park (developed) peak hour and daily rates are utilized.

[5] Hotel trip rates account for 15.7 tsf of ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

[6] The Wave Basin Facility trip rates account for pool area and 1 tsf of back of house wave operations.

[7] Wave Village trip rates account for 10 tsf of ancillary facilities which include shape studio, surf shop, board room, surf lounge/living room, surf classroom, fitness pavilion, high performance center, & beach club.

[8] The Farm trip rates account for 11 tsf of ancillary facilities which include Barn, Greenhouse, Equipment Barn, Tool Shed, Family Camp, Gym, Outfitters, & Locker Rooms.

[9] The 1 tsf back of house guardhouse use is accounted for in the Project rates.

TABLE 4: ALTERNATIVE 4, THE GOLF/RESORT HOTEL TRIP GENERATION SUMMARY

Trip Generation Rates[1,9]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	600 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Resort Hotel[5] (with bar, restaurant, kitchen, rooftop bar, pool bar & grill, and spa. Back of house resort operations included)	330	150 RM	0.27	0.10	0.37	0.20	0.27	0.47	7.87
Golf Course	430	18 HOLES	1.39	0.37	1.76	1.54	1.37	2.91	30.38

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	600 DU	114	330	444	372	222	594	5,664
Internal to Retail/Resort			*(3)*	*(9)*	*(12)*	*(9)*	*(8)*	*(17)*	*(149)*
Residential External Trips			111	321	432	363	214	577	5,515
Resort Hotel	330	150 RM	41	15	56	30	41	71	1,181
Internal to Residential/Golf Course			*(7)*	*(7)*	*(14)*	*(10)*	*(11)*	*(21)*	*(252)*
Golf Course	430	18 HOLES	25	7	32	28	25	53	547
Internal to Residential/Resort			*(8)*	*(2)*	*(10)*	*(8)*	*(8)*	*(16)*	*(192)*
Golf Course External Trips			17	5	22	20	17	37	355
Project Subtotal			180	352	532	430	288	718	7,392
Internal Capture Subtotal			*(18)*	*(18)*	*(36)*	*(27)*	*(27)*	*(54)*	*(593)*
Project Total External Trips			**162**	**334**	**496**	**403**	**261**	**664**	**6,799**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet

[5] Hotel trip rates account for ancillary facilities which include bar, restaurant, kitchen, rooftop bar, pool bar & grill, spa, and back of house resort operations.

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TABLE 5: ALTERNATIVE 5, THE LAKE AMENITY/NO HOTEL TRIP GENERATION SUMMARY

Trip Generation Rates[1]										
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44
Shopping Center	820	60 TSF	0.58	0.36	0.94	1.83	1.98	3.81	37.75
Lake[3]	417	75 AC	--	--	--	0.09	0.11	0.20	4.57

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	750 DU	143	413	556	465	278	743	7,080
Internal to Retail/Lake			*(5)*	*(8)*	*(13)*	*(30)*	*(27)*	*(57)*	*(499)*
Residential External Trips			138	405	543	435	251	686	6,581
Shopping Center	820	60 TSF	35	22	57	110	119	229	2,265
Pass-By (25%)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Internal to Residential/Lake			*(8)*	*(5)*	*(13)*	*(28)*	*(30)*	*(58)*	*(580)*
Shopping Center External Trips			20	10	30	54	61	115	1,119
Lake	417	75 AC	-	-	-	7	8	15	343
Internal to Residential/Retail			-	-	-	*(5)*	*(6)*	*(11)*	*(232)*
Lake External Trips			-	-	-	2	2	4	111
Project Subtotal			178	435	613	582	405	987	9,688
Internal Capture Subtotal			*(13)*	*(13)*	*(26)*	*(63)*	*(63)*	*(126)*	*(1,311)*
Pass-By (Shopping Center)			*(7)*	*(7)*	*(14)*	*(28)*	*(28)*	*(56)*	*(566)*
Project Total External Trips			**158**	**415**	**573**	**491**	**314**	**805**	**7,811**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit; TSF = Thousand Square Feet

[3] Since the current ITE does not have trip rates for a private open space amenity, ITE 9th edition rates have been uitlized.

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TABLE 6: PROJECT TRIP GENERATION COMPARISON SUMMARY

Land Use[1]	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Alternative 1 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
No Project/No Build Alternative	0	0	0	0	0	0	0
ALTERNATIVE 1 DELTA (Alternative - TIA)	**-147**	**-300**	**-447**	**-383**	**-255**	**-638**	**-6,994**
Alternative 2 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
No Project/Existing Entitlements Alternative *- 750 DU SFDR, 60 TSF Retail, 18 Hole Golf Course*	175	414	589	505	324	829	7,923
ALTERNATIVE 2 DELTA (Alternative - TIA)	**28**	**114**	**142**	**122**	**69**	**191**	**929**
Alternative 3 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
Reduced Density *- 331 DU SFDR, 69 DU MF, 100 RM Hotel, 40 TSF Retail, 12 AC Wave Basin Facility, 10 TSF Wave Village, 11 TSF The Farm*	96	197	293	252	160	412	4,600
ALTERNATIVE 3 DELTA (Alternative - TIA)	**-51**	**-103**	**-154**	**-131**	**-95**	**-226**	**-2,394**
Alternative 4 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
The Golf/Resort Hotel Alternative *- 600 DU SFDR, 150 RM Hotel, 18 Hole Golf Course*	162	334	496	403	261	664	6,799
ALTERNATIVE 4 DELTA (Alternative - TIA)	**15**	**34**	**49**	**20**	**6**	**26**	**-195**
Alternative 5 Trip Generation Comparison							
Proposed Project (TIA) *- 496 DU SFDR, 104 DU MF, 150 RM Hotel, 60 TSF Retail, 12 AC Wave Basin Facility, 15 TSF Wave Village, 16 TSF The Farm*	147	300	447	383	255	638	6,994
The Lake Amenity/No Hotel Alternative *- 750 DU SFDR, 60 TSF Retail, 75 AC Lake*	158	415	573	491	314	805	7,811
ALTERNATIVE 5 DELTA (Alternative - TIA)	**11**	**115**	**126**	**108**	**59**	**167**	**817**

[1] DU = Dwelling Unit; RM = Occupied Room; TSF = Thousand Square Feet; AC = Acre;
SFDR = Single Family Detached Residential; MF = Multi Family Residential

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