

# ALEX ROARK ENGINEERING



DECEMBER 2, 2023

CONTACT

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**Dear Ms. Robinson,**

Alex Roark Engineering has reviewed the Traffic Impact Analysis for the proposed Sirata Beach Resort Redevelopment prepared by Kimley-Horn and Associates, Inc. dated November 2023 and we offer the following comments. Based on the comments below, to accurately reflect an analysis of the transportation conditions, the study will need to be revised.

**1. The Project Traffic Distribution method is inappropriate.**

- a. The FSUTMS TBRPM model was used for distribution for both the weekday and weekend (Saturday) analyses. The distribution percentages used were identical in both analyses. However, this model is a peak season *weekday* average daily traffic model. Therefore, these percentages are for weekday trips, not weekend trips. The purpose of analyzing the weekend versus the weekday is because the traffic patterns are different on the weekend, particularly in this case. Therefore, the FSUTMS model should not be used for the weekend analysis.
- b. Additionally, for both the weekend and weekday analysis, the daily distribution percentages from the FSUTMS model were used for the peak hour periods. The traffic distribution on a daily basis may be significantly different than on a peak hour basis. This is the same reason that both the AM and PM peak hours are analyzed. Alternatively, the TBRPM model has “time of day” modules that can model the peak hours versus the daily periods which would have been more appropriate. However, in this case there is an identical land use in the same location that



currently exists. Traffic counts were already taken at these driveways so the distribution percentages from the existing site would be much more accurate and representative of the traffic distribution (and assignment).

- c. The actual distribution percentages from the existing site differ significantly from the estimated distribution percentages. The existing distribution percentages demonstrated in the study's traffic counts of the existing hotel driveways show the PM Peak Hour with 54% of the hotel traffic travel to/from the south, but the estimate in the analysis on page 5 is only 30% to/from the south. Exiting traffic is even more exaggerated with 61% to the south compared to the 30% used in the analysis. This is significant because the total traffic volumes, which are the sum of the background traffic and this project traffic, will be inaccurate and therefore the capacity analysis will be inaccurate.
- d. Finally, the vested trips calculations for the Miramar and Corey Landings developments also used the FSUTMS model. Therefore, these vested trip calculations should also be revised to reflect the peak hour of this area.

## **2. The Peak Hours were not analyzed.**

Traffic Impact Analyses study the peak hours because it is the worst-case scenario. Typical PM Peak Hours occur between 4-6pm. This is primarily due to the work to home trips. This is the time period that was analyzed in this study. However, this area is on/near the beach and the land uses are more recreational and vacation related. Therefore, this area's peak hour occurs earlier in the day (near 1pm-3pm). This is also evidenced by the FDOT count station #155147 (attached to this letter) which is on Gulf Boulevard south of this location. This study should be revised to analyze the peak hour.

Additionally, the ITE trip generation that was used to estimate trips from these sites are likely also inaccurate as they use the peak hour of the adjacent street, which again is typically 4-6pm which is not the case here.

## **3. The project driveway volumes are incorrect.**

- a. The existing site's traffic was discounted from the analysis since it is assumed that traffic is vested, and the impacts should only be evaluated for traffic above and beyond the existing vested traffic. However, that does not mean that the actual traffic volumes utilizing the driveways (turn lanes into and out of the site) will be reduced by the existing traffic volumes.



Therefore, using Net New Trips for driveway volumes is inaccurate. For the driveway trips and the subsequent turn lane analyses, Total Trips must be used.

- b. The proposal for this development has implied that there will be public access parking on this site. If that is the case, then the estimates for those additional public access parking users should be added to the driveway volumes for the turn lane analyses.

**4. The capacity calculations in Table 3 and 4 for Blind Pass Road and Gulf Winds Drive are inaccurate.**

The capacity calculation estimates are explained in the footnote of the tables and appear to be using outdated FDOT tables. The latest (2023) tables utilized Context Classification and the LOS D capacity for these segments should be 626 not 718. This is Context Classification C4, Urban General, (870x0.80x0.90).

**5. Table 4, Peak-Hour Roadway Segment Capacity Analysis includes Pasadena Avenue with 6 lanes, when it has been reduced to 4 lanes.**

The outside lanes on Pasadena Avenue within the segment of Shore Drive South to Gulfport Boulevard South was recently reduced to 4 general travel lanes and the outside lanes were converted to bus-only lanes. This would significantly reduce the capacity of this roadway segment and the 6-lane capacity should be revised accordingly.

Based on this review, this Traffic Impact Analysis should be revised to accurately reflect an assessment of the transportation impacts associated with this proposed development. This review was not comprehensive but rather a summary of the larger issues. Further review may result in more issues in the details. Please let us know if you have any questions.

Sincerely,



Drew Roark, PE, CTL  
Vice President



COUNTY: 15  
 STATION: 5147  
 DESCRIPTION: SR 699/GULF BLVD, N OF SR 682/PINELLAS BAYWAY S  
 START DATE: 03/07/2022  
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	22	16	15	11	64	20	14	10	3	47	111
0100	8	7	5	9	29	7	14	8	10	39	68
0200	11	4	2	5	22	6	6	8	5	25	47
0300	3	6	5	2	16	5	8	2	7	22	38
0400	8	5	8	9	30	7	16	12	9	44	74
0500	11	14	17	39	81	16	14	27	22	79	160
0600	27	40	56	84	207	27	63	70	67	227	434
0700	107	124	154	192	577	71	107	110	160	448	1025
0800	146	177	156	184	663	220	164	184	194	762	1425
0900	174	194	194	233	795	168	189	183	208	748	1543
1000	220	206	207	240	873	201	196	232	176	805	1678
1100	244	256	247	266	1013	217	206	199	183	805	1818
1200	288	259	230	262	1039	171	200	206	207	784	1823
1300	278	260	293	245	1076	254	210	222	215	901	1977
1400	217	262	260	263	1002	217	241	227	220	905	1907
1500	257	249	232	221	959	216	208	199	231	854	1813
1600	292	218	240	247	997	213	225	216	204	858	1855
1700	244	268	200	222	934	227	196	213	212	848	1782
1800	231	199	195	188	813	168	211	178	177	734	1547
1900	171	141	132	105	549	140	170	155	113	578	1127
2000	125	96	106	96	423	137	97	131	86	451	874
2100	76	73	69	72	290	84	92	76	62	314	604
2200	57	35	36	27	155	67	66	42	46	221	376
2300	34	29	21	16	100	41	43	22	17	123	223

24-HOUR TOTALS: 12707 11622 24329

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	845	746	800	762	845	1480
P.M.	1245	1093	1400	905	1245	1986
DAILY	1245	1093	1400	905	1245	1986

TRUCK PERCENTAGE 1.62 2.76 2.17

CLASSIFICATION SUMMARY DATABASE

DIR 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 TOTTRK TOTVOL

COUNTY: 15  
 STATION: 5147  
 DESCRIPTION: SR 699/GULF BLVD, N OF SR 682/PINELLAS BAYWAY S  
 START DATE: 03/08/2022  
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	16	7	20	10	53	15	13	12	6	46	99
0100	11	6	7	3	27	7	8	8	6	29	56
0200	4	3	6	5	18	7	2	8	2	19	37
0300	4	3	3	3	13	1	4	3	5	13	26
0400	6	5	9	8	28	7	11	9	20	47	75
0500	9	15	22	25	71	13	26	28	36	103	174
0600	23	41	56	78	198	28	50	64	75	217	415
0700	84	123	144	153	504	102	111	140	145	498	1002
0800	159	174	157	195	685	170	180	161	146	657	1342
0900	160	185	213	229	787	161	177	195	196	729	1516
1000	216	224	209	208	857	184	189	213	179	765	1622
1100	267	241	286	281	1075	195	184	215	168	762	1837
1200	287	271	256	279	1093	201	218	208	188	815	1908
1300	235	263	271	263	1032	236	179	216	225	856	1888
1400	290	241	273	268	1072	201	225	224	201	851	1923
1500	277	274	292	279	1122	229	217	202	215	863	1985
1600	276	240	261	226	1003	218	224	212	209	863	1866
1700	237	244	235	229	945	207	208	194	197	806	1751
1800	211	197	170	194	772	207	208	175	204	794	1566
1900	218	157	150	103	628	179	181	165	138	663	1291
2000	85	74	88	72	319	116	115	87	84	402	721
2100	87	54	61	42	244	108	89	75	51	323	567
2200	55	42	43	20	160	69	42	47	44	202	362
2300	29	22	19	20	90	36	36	33	16	121	211

24-HOUR TOTALS: 12796 11444 24240

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	845	753	845	679	845	1432
P.M.	1500	1122	1415	879	1500	1985
DAILY	1130	1125	1415	879	1500	1985

TRUCK PERCENTAGE 1.48 2.72 2.07

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
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