Appendix D Traffic Analysis

DRAFT

City of Huntington Beach

BEACH-EDINGER CORRIDOR SPECIFIC PLAN AREA
Traffic Analysis For Beach-Ellis Project

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BEACH-EDINGER CORRIDOR SPECIFIC PLAN AREA
Traffic Analysis For Beach-Ellis Project

This report presents a traffic analysis for the Beach-Ellis Project located within the Beach Boulevard and Edinger Avenue Corridor Specific Plan (SP) area. It is intended to supplement the information contained in the original traffic study (August 2009) and EIR for the SP (approved in 2010).

BACKGROUND AND SCOPE

The SP area extends along Beach Boulevard from Edinger Avenue to just south of Atlanta Avenue, and along Edinger Avenue from Goldenwest Street to Beach Boulevard. Figure 1 illustrates the area covered by the SP. At buildout, the SP as approved in 2009 will add 4,500 residential units, 739,000 square feet of commercial uses, 112,000 square feet of office uses and 200 hotel rooms[1].

The SP area includes the Beach-Ellis Project, which is illustrated in Figure 2. It is a 2.6-acre site, with 105 dwelling units and 37,000 square feet of retail uses proposed for development. It is located within the Five Points District of the SP.

The following analysis provides an evaluation of the trip generation characteristics for the proposed project, and a finding of consistency with the SP is then made based on that trip generation analysis. The resulting change in ADT volumes is presented in tabular format for the impacted roadway segments and the peak hour impacts are discussed next. A discussion of the project's participation in the SP mitigation program is then provided, followed by a site access evaluation.

TRIP GENERATION ANALYSIS

The Beach-Ellis project is located at 18502 through 18552 Beach Boulevard, on the southeast corner of Beach Boulevard and Ellis Avenue. The project site is bounded by Beach Boulevard to the west, Ellis Avenue to the north, commercial uses to the south, and multi-family residential uses to the east.

The project proposes a mixed-use development consisting of 105 residential units and 37,000 square feet of commercial uses, which will replace the existing retail center (27,546 square feet). Table 1

[1] The traffic study and EIR analyzed a maximum of 6,400 units, but the SP was ultimately approved for 4,500 units.

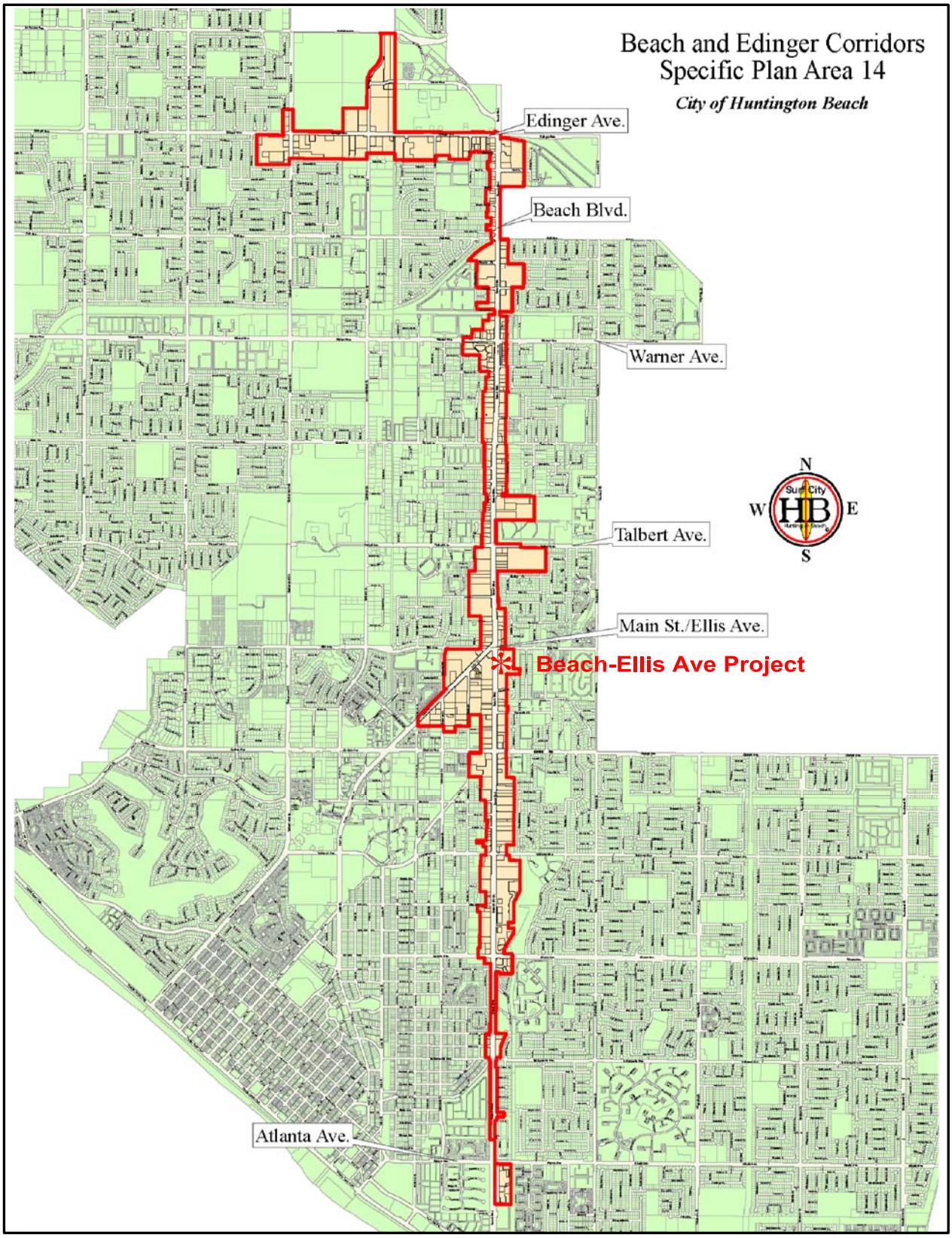
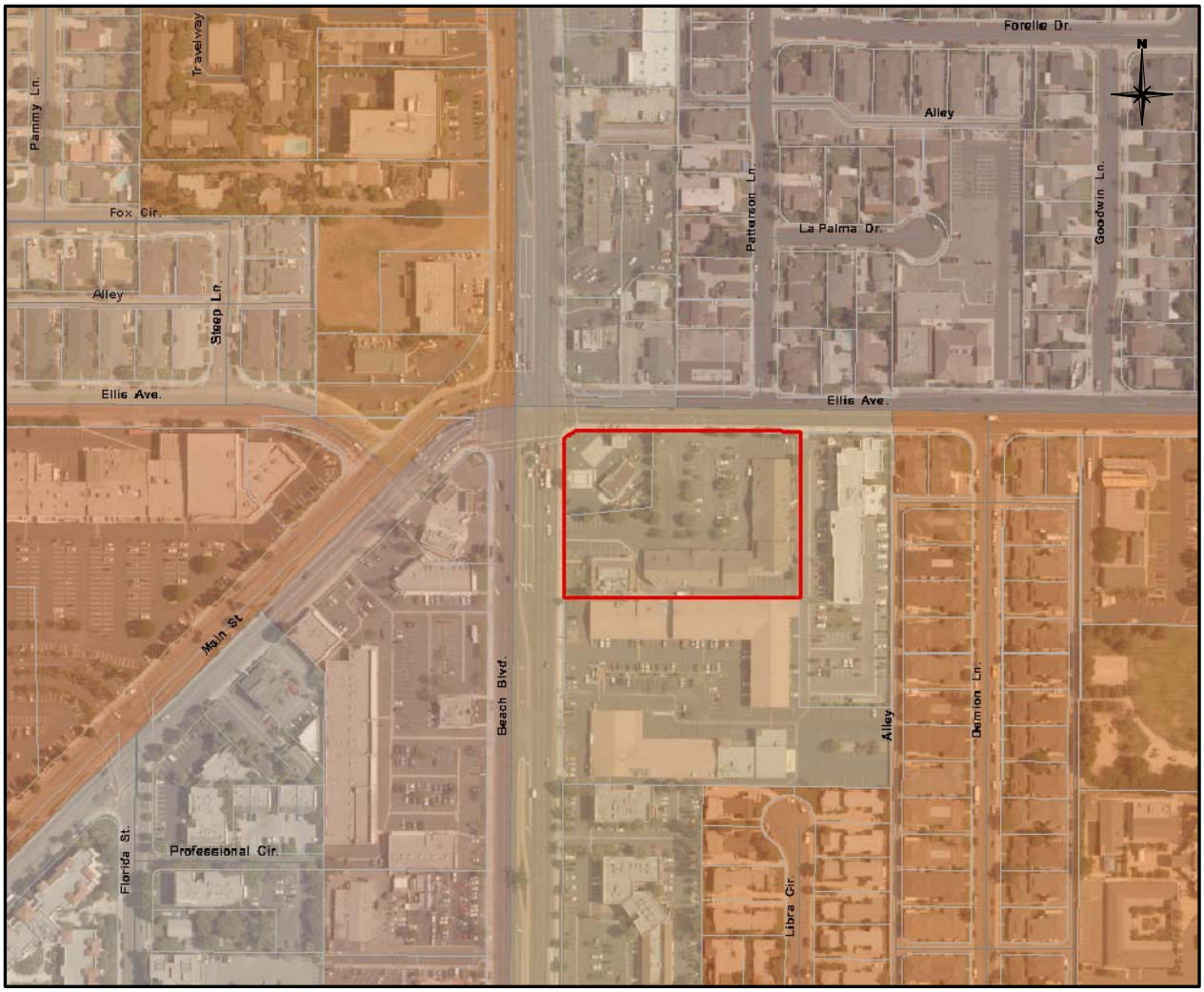


Figure 1

BEACH-EDINGER SPECIFIC PLAN



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XX TAZ number

Beach-Ellis Project Location

Figure 2

BEACH-ELLIS PROJECT LOCATION

Table 1

TRIP GENERATION COMPARISON FOR BEACH-ELLIS

Land Use	Units	AM Peak Hour			PM Peak Hour			
		In	**Out**	**Total**	**In**	**Out**	**Total**	**ADT**
Proposed Project								
Mixed-Use Residential[1]	105 DU	11	43	54	42	23	65	706
General Commercial	37 TSF	23	14	37	68	70	138	1,589
*Internal Capture**		*-2*	*-2*	*-4*	*-14*	*-14*	*-28*	*-316*
*Pass-by Reduction***					*-20*	*-22*	*-42*	*-286*
Sub-Total		**32**	**55**	**87**	**76**	**57**	**133**	**1,693**
Approved Specific Plan								
Mixed-Use Residential[1]	120 DU	12	49	61	48	26	74	806
General Commercial	71 TSF	43	28	71	130	135	265	3,049
*Internal Capture**		*-4*	*-4*	*-8*	*-24*	*-22*	*-46*	*-305*
*Pass-by Reduction***					*-40*	*-42*	*-82*	*-579*
Sub-Total		**51**	**73**	**124**	**114**	**97**	**211**	**2,971**
% Difference				***-30%***			***-37%***	***-43%***
ITE 8th Ed. (Land Use Code) Trip Rates								
[1]Apartments (220)	DU	0.10	0.41	0.51	0.40	0.22	0.62	6.72
General Commercial (820)	TSF	0.61	0.39	1.00	1.83	1.90	3.73	42.94

Notes:
*Assumes internal capture of 5% AM Peak Hour, 14% PM Peak Hour and 10% ADT based on Commercial trips.
**Pass-by reduction factor of 34% for the AM and PM peak hours, and 20% for ADT volumes.
Pass-by reduction is calculated after the internal capture is accounted for.

summarizes the land use and trip generation for the proposed project and provides a comparison against the land uses assumed in the SP EIR.

The land uses proposed for the project site represent a net decrease of 15 dwelling units and 34,000 square feet of commercial uses when compared to the approved SP EIR. This results in a decrease of 1,278 daily trips, with a reduction of 38 trips in the AM peak hour and 77 trips in the PM peak hour. This results in a 43 percent reduction in trip generation for the daily trips, a 30 percent reduction in the AM peak hour, and a 37 percent reduction in the PM peak hour.

2030 ADT VOLUMES

Table 2 summarizes the 2030 ADT volumes with the proposed project for roadways in the project vicinity with a measurable change from the approved SP volumes.

Table 2

2030 ADT VOLUME SUMMARY

Link Location	**2030 Specific Plan ADT Volume**	**2030 ADT Volume with Proposed Project**	**% Change**
Beach Blvd north of Ellis Ave	62,000	61,490	< -1%
Beach Blvd south of Ellis Ave	51,000	50,440	-1.1%
Beach Blvd south of Garfield Ave	45,000	44,660	< -1%
Ellis Ave west of Beach Blvd	7,000	6,900	-1.4%
Ellis Ave east of Beach Blvd	22,000	21,475	-2.4%

As shown, all roadways segments are projected to have slight decreases in the daily volumes, where the magnitude of change is two percent or less.

PEAK HOUR ANALYSIS

The 2030 ICU values and level of service (LOS) for the approved SP are summarized in the Table 3 for intersections immediately adjacent to the proposed project:

Table 3 2030 ICU SUMMARY				
	AM PEAK HOUR		**PM PEAK HOUR**	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**
60. Beach Blvd & Talbert Ave	.85	D	1.00	E
66. Beach Blvd & Ellis Ave	.64	B	.78	C
68. Main St and Ellis Ave	.32	A	.45	A

As shown, the intersection of Beach Boulevard at Talbert Avenue shows a PM deficiency (LOS "E") and the other two intersections will operate at a satisfactory LOS. The reduction in trips due to the proposed project is too small to result in a change to the LOS. The finding is that the deficiency identified at Beach Boulevard and Talbert Avenue still requires mitigation, as part of the overall SP, but the mitigation is not a project responsibility. As discussed in the SP EIR, the intersection of Main Street at Ellis Avenue has an operational deficiency due to the short stacking distance with the adjacent intersection of Beach Boulevard at Ellis Avenue. While the proposed project will decrease the peak hour trips, this operational deficiency would remain.

SPECIFIC PLAN MITIGATION PROGRAM

The City of Huntington Beach maintains a Traffic Impact Fee (TIF) program, which funds transportation improvements throughout the City. The TIF program satisfies the AB1600 legislative requirement that development fees are based on a demonstrated relationship between new development and future traffic impacts. Every development project contributes on a fair share basis to these improvements by means of the fee program, which manages the collection of fees and the implementation of improvements. In this way, capacity improvements occur in an orderly and systematic manner, with all future development contributing on a fair share basis.

An update to this program is currently underway, including the funding for improvements identified in the Beach/Edinger Specific Plan. Participation in the updated TIF will ensure that the Beach-Ellis project pays its fair-share contribution to future improvements along with other development in the SP area and the remainder of the City.

SITE ACCESS

A project site plan is illustrated in Figure 3 and the two existing driveways on Ellis Avenue are consolidated into one entrance. Beach Boulevard will maintain the existing driveway, allowing for right-turn ingress and egress. Design of the access points will be part of the formal site plan review carried out for the project.

Figure 4 illustrates the trip distribution along with the proposed project peak hour volumes for the access points. As shown, the driveways are expected to operate at an acceptable LOS.

EXISTING PLUS PROJECT ANALYSIS

The purpose of the existing plus project analysis is to comply with the California Environmental Quality Act (CEQA), which requires that the baseline for assessing environmental impacts is the existing conditions at the time the notice of preparation (NOP) is prepared. The information presented in this section shows the traffic volumes resulting from the addition of traffic from the proposed project (i.e., residential with mixed-use commercial) to existing traffic conditions. The analysis is hypothetical because the actual buildout and occupancy of the project is year 2019.

To derive the with-project volumes, the project-only peak hour intersection volumes are added to the existing (no-project) conditions volumes. Table 4 summarizes the increase in trip generation due to the proposed project. The existing trip generation is first estimated, and this amount is then subtracted from the proposed project trip generation. The result is the project's increase in trip generation and these volumes are then assigned to the street system using the trip distribution presented earlier in the report (refer to Figure 4).

The net increase is 510 daily trips, 59 trips in the AM peak hour and 31 trips in the PM peak hour. The change in ADT volumes is too small of a magnitude to produce a significant change in ADT volumes on the surrounding streets. Table 5 summarizes the existing-plus-project ICU values and LOS, and provides a comparison against the existing (no-project) conditions. As shown in Table 5, there are no significant project impacts.

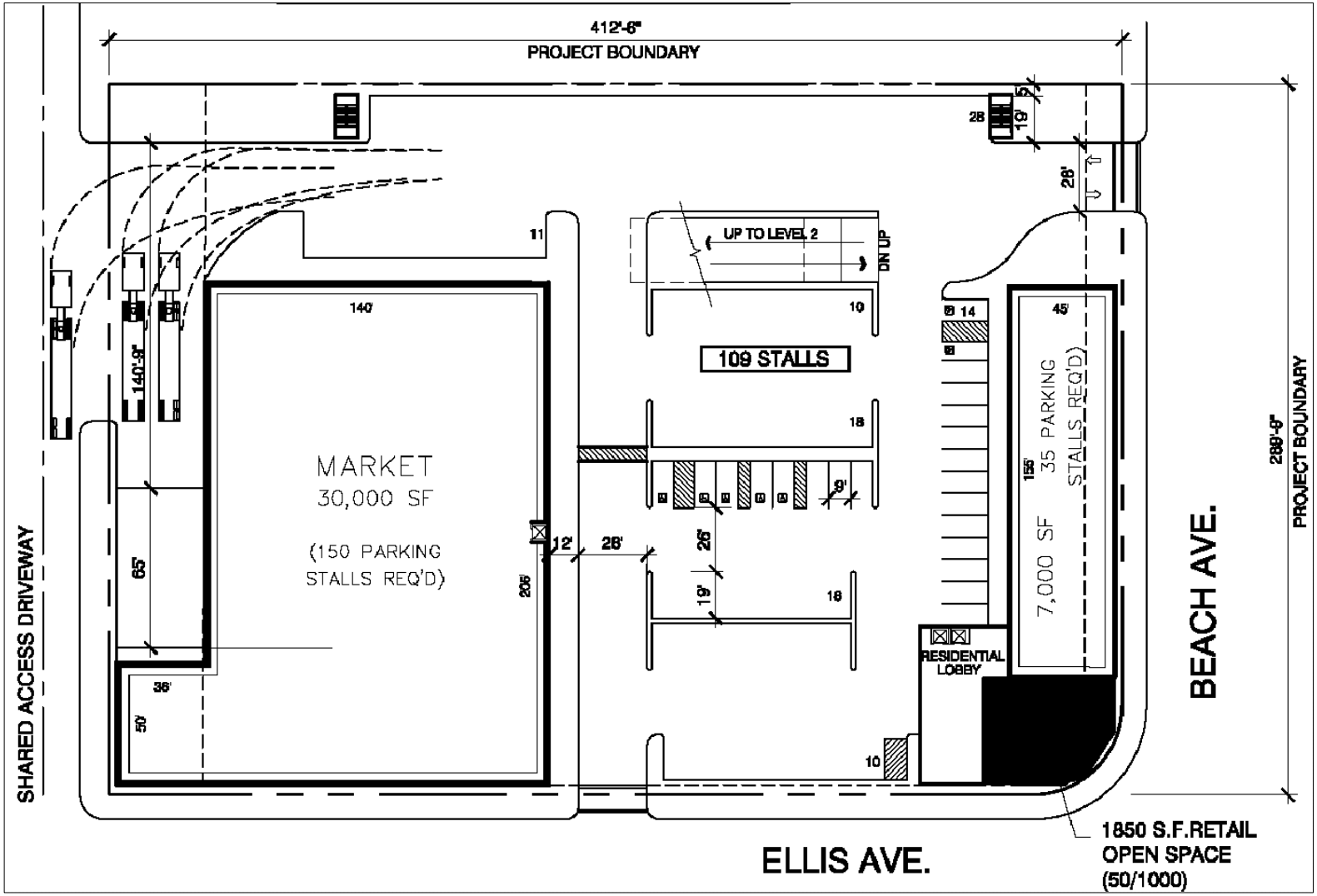
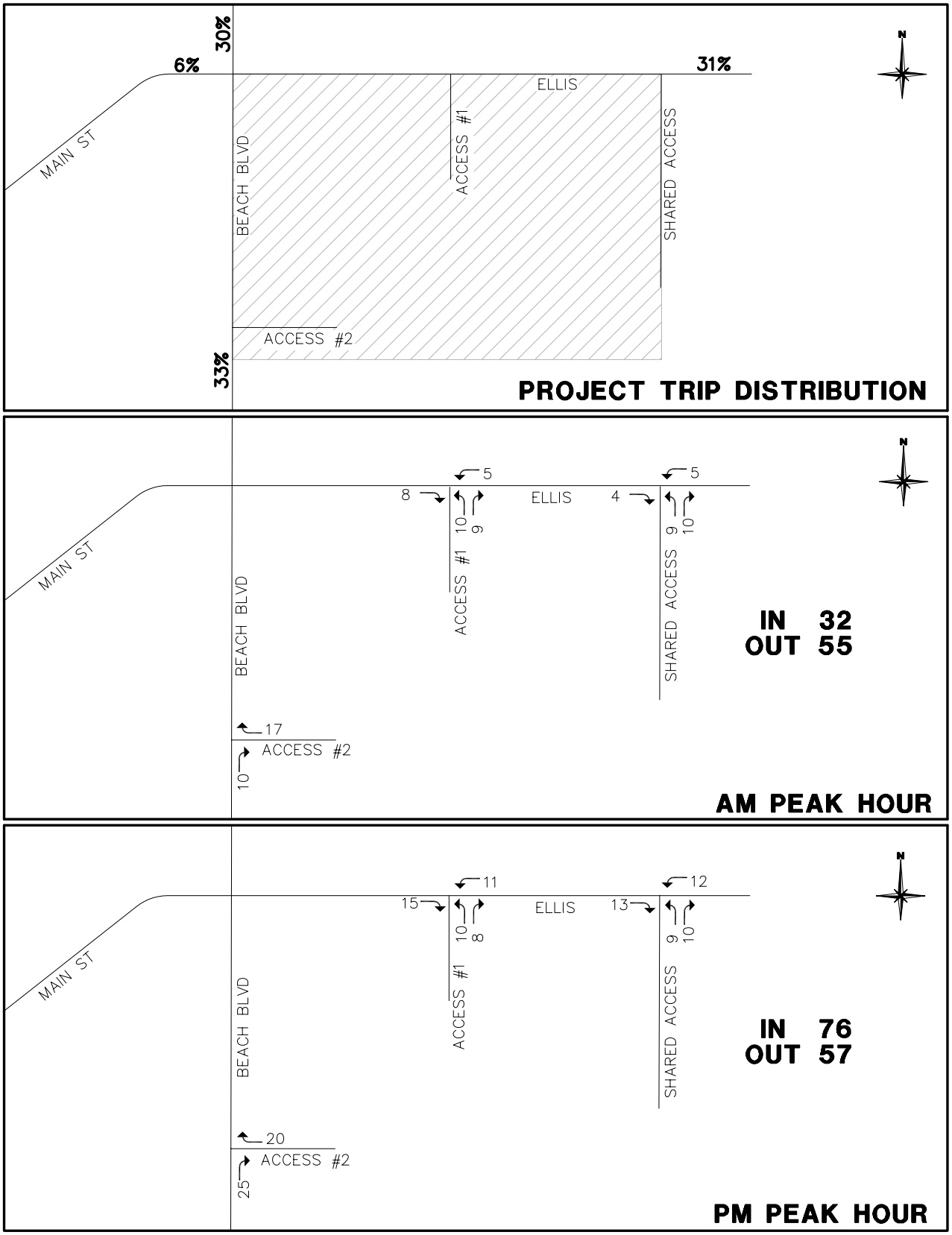


Figure 3

SITE ACCESS



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ZZ%	Project Trip Distribution
XX	Access Volumes
	Project Site

Figure 4

TRIP DISTRIBUTION AND PROJECT ACCESS VOLUMES - PROPOSED PROJECT

Table 4

EXISTING-PLUS-PROJECT TRIP GENERATION

Land Use	Units	AM Peak Hour			PM Peak Hour			
		In	**Out**	**Total**	**In**	**Out**	**Total**	**ADT**
Existing Uses								
Shopping Center[2]	27.54 TSF	17	11	28	50	52	102	1,183
Sub-Total		**17**	**11**	**28**	**50**	**52**	**102**	**1,183**
Proposed Project								
Mixed-Use Residential	105 DU	11	43	54	42	23	65	706
General Commercial	37 TSF	23	14	37	68	70	138	1,589
*Internal Capture**		*-2*	*-2*	*-4*	*-14*	*-14*	*-28*	*-316*
*Pass-by Reduction***					*-20*	*-22*	*-42*	*-286*
Sub-Total		**32**	**55**	**87**	**76**	**57**	**133**	**1,693**
Project Increment		***15***	***44***	***59***	***26***	***5***	***31***	***510***

[2] This category includes all existing uses on the site.

Table 5

EXISTING-PLUS PROJECT ICU COMPARISON SUMMARY

	Existing (No-Project)				**Existing-plus-Project**			
	AM Peak Hour		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**
60. Beach Blvd & Talbert Ave	.70	B	.94	E	.70	B	.94	E
66. Beach Blvd & Ellis Ave	.54	A	.64	B	.55	A	.64	B
68. Main St and Ellis Ave	.27	A	.37	A	.27	A	.37	A

CUMULATIVE PROJECTS

The analysis assumes known cumulative projects as part of the background 2030 growth, consistent with the cumulative projects assumed in the Beach-Edinger Specific Plan EIR. Table 6 summarizes the cumulative projects. Detailed information can be found in Reference 1 at the end of the report.

PROJECT ALTERNATIVES

Overland Traffic consultants evaluated two alternatives for the project applicant. The Mixed-Use Alternative, defined as the project that best suits the needs of the developer for a mixed-use development, is a 274 residential apartment project with 8,500 square feet of retail. The Full Commercial Alternative is a commercial project, which includes a 44,100 square foot shopping center with a market, restaurant and other retail uses plus 33,200 square feet of office uses. A peer review of the trip generation confirms that best practices were used with respect to the trip generation based upon ITE 8th Edition trip generation rates and internal and pass-by reductions accounted for in accordance with the ITE Recommended Practice for mixed-use developments.

Table 7 summarizes the trip generation for the two alternatives, and provides a comparison against the approved SP project, which was used in this report to evaluate the traffic impacts. As shown, the Mixed-Use Alternative results in a 30 percent reduction in daily trips, a 22 percent reduction in PM peak hour trips, and a 19 percent increase in the AM peak hour trips (primarily due to the increase of 42 outbound trips), when compared to the approved SP project. Table 8 summarizes the change in ADT volumes due to the Mixed-Use Alternative. As discussed earlier, the 2030 ICU values for the approved Specific Plan do not show an AM peak hour deficiency. The increase of 42 outbound trips in the AM peak hour is not estimated to have a significant impact. The number of intersection impacts under the Mixed-Use Alternative would be consistent with that anticipated for the proposed project under the approved SP.

The Full Commercial Alternative results in a 25 percent reduction in daily trips, a 20 percent reduction in the PM peak hour and a 13 percent reduction in the AM peak hour. However, there will be an increase of 38 inbound trips in the AM peak hour and an increase of 27 outbound trips in the PM peak hour. The change in ADT volumes is noted in the previously referenced Table 8. The 2030 ICU values

Table 6

CUMULATIVE PROJECTS ASSUMED IN TRAFFIC STUDY

Zone	Land Use Type	Units	Amount	Description of Cumulative Projects
City of Huntington Beach				
20	10. Commercial General	TSF	12.2	Golden West College Master Plan
23	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	440 10	Amstar/Red Oak Project (formerly Rip Curl)
23	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	1268 60	Murdy Commons
25	5. Res. High Density	Dwelling Unit	10	Seawind Village Apartments
28	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	713 138	The Village at Bella Terra
33	8. Overnight Accommodations	Room	144	Edinger Hotel
59	4. Res. Med. High Density	Dwelling Unit	15	Bayview/Harmony GRE Residential
63	3. Res. Medium Density	Dwelling Unit	19	Plaza Buccella and Pearce St. Subdivision
70	10. Commercial General	TSF	4.63	17032 Bolsa Chica
99	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	272 257	Beach-Warner Mixed Use
111	1. Res. Low Density	Dwelling Unit	111	Parkside Estates
120	37. Senior Center	TSF	45	Senior Center
121	28. Sports Park	Acre	78.5	Edison Community Center
124	10. Commercial General	TSF	24.82	Longs Drugs, Fein Medical Office, Ocean Breeze Plaza and Master Plan
153	10. Commercial General	TSF	39.5	Toyota Dealership
154	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	120 71	Beach-Ellis Mixed Use
160	1. Res. Low Density	Dwelling Unit	61	Lamb School Site
170	10. Commercial General	TSF	139	Home Depot
223	1. Res. Low Density	Dwelling Unit	42	Wardlow School Site

Table 6 (cont)
CUMULATIVE PROJECTS ASSUMED IN TRAFFIC STUDY

Zone	Land Use Type	Units	Amount	Description of Cumulative Projects
City of Huntington Beach (cont)				
267	3. Res. Medium Density	Dwelling Unit	201	Blue Canvas Residential
274	5. Res. High Density	Dwelling Unit	514	Pacific City Mixed Use
275	8. Overnight Accommodations 9. Commercial Visitor	Room TSF	250 207.85	Pacific City Mixed Use
276	8. Overnight Accommodations	Room	250	Waterfront 3rd Hotel
281	3. Res. Medium Density	Dwelling Unit	502	Magnolia Specific Plan
322	10. Commercial General 8. Overnight Accommodations	TSF Room	135 149	The Strand
325	20. Mixed Use Residential 21. Mixed Use Commercial	Dwelling Unit TSF	121 8.27	424 Main Street
391	1. Res. Low Density	Dwelling Unit	349	Brightwater Annexation
City of Westminster				
398	10. General Commercial 47. Self-Storage	TSF TSF	6.78 135.1	Self-Storage Project in Westminster
778	3. Res. Medium Density	Dwelling Unit	149	Moran Senior Condos

Table 7

TRIP GENERATION FOR PROJECT ALTERNATIVES

Land Use	Units	AM Peak Hour			PM Peak Hour			
		In	**Out**	**Total**	**In**	**Out**	**Total**	**ADT**
Mixed-Use Alternative								
Apartments	274 DU	28	112	140	110	59	170	1,822
Retail Center	8.5 TSF	6	4	10	10	13	23	377
Internal Capture		*-1*	*-1*	*-2*	*-8*	*-8*	*-16*	*-76*
Pass-by Reduction		*-1*	*0*	*-1*	*-6*	*-6*	*-12*	*-29*
Sub-Total		**32**	**115**	**147**	**106**	**58**	**165**	**2,094**
Total from Approved Project		**51**	**73**	**124**	**114**	**97**	**211**	**2,971**
Net Difference from Approved Project		-19	42	23	-8	-39	-46	-877
% Difference		-37%	58%	19%	-7%	-40%	-22%	-30%
Full Commercial Alternative								
Shopping Center	44.1 TSF	27	17	44	81	84	165	1,894
Office	33.2 TSF	69	9	78	20	96	116	571
Internal Capture		*-6*	*-6*	*-12*	*-21*	*-21*	*-42*	*-132*
Pass-by Reduction		*-1*	*-1*	*-2*	*-35*	*-35*	*-70*	*-93*
Sub-Total		**89**	**19**	**108**	**45**	**124**	**169**	**2,240**
Total from Approved Project		**51**	**73**	**124**	**114**	**97**	**211**	**2,971**
Net Difference from Approved Project		38	-54	-16	-69	27	-42	-731
% Difference		75%	-74%	-13%	-61%	28%	-20%	-25%

Table 8

2030 ADT VOLUME SUMMARY FOR ALTERNATIVES

Link Location	2030 Specific Plan ADT Volume	2030 ADT Volume with Alternative	% Change
MIXED USE ALTERNATIVE			
Beach Blvd north of Ellis Ave	62,000	61,737	<-1%
Beach Blvd south of Ellis Ave	51,000	50,711	<-1%
Beach Blvd south of Garfield Ave	45,000	44,711	<-1%
Ellis Ave west of Beach Blvd	7,000	6,947	<-1%
Ellis Ave east of Beach Blvd	22,000	21,728	-1.2%
FULL COMMERCIAL ALTERNATIVE			
Beach Blvd north of Ellis Ave	62,000	61,781	<-1%
Beach Blvd south of Ellis Ave	51,000	50,759	<-1%
Beach Blvd south of Garfield Ave	45,000	44,759	<-1%
Ellis Ave west of Beach Blvd	7,000	6,956	<-1%
Ellis Ave east of Beach Blvd	22,000	21,773	-1.0%

show a deficiency at Beach Boulevard/Talbert Avenue during the PM peak hour only. The findings are that while the Full Commercial alternative shows an increase in one direction during the AM peak hour, the increase would not result in a significant impact. The increase of 27 PM outbound trips would not cause a significant impact but would contribute to a cumulative deficiency during the PM peak hour. The Full Commercial alternative would be consistent with that anticipated under the approved SP for the proposed project; the only difference is that it would contribute a slightly higher share to the cumulative deficiency.

REFERENCES

1. "Beach Boulevard and Edinger Avenue Corridor Specific Plan Traffic Study," Austin-Foust Associates, August 2009.

2. "L. Culhane, Correspondence to Ben Brosseau," Overland Traffic Consultants, March 7, 2011.