

## THE TRAFFIC MANAGEMENT CONSULTANT

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TMC Job No. 201204

July 18, 2013

**Downtown Capital, LLC**  
215 North King Street, #1000  
Honolulu, Hawaii 96817

Attention: Mr. Derek Lock

Gentlemen:

**Subject: 801B South Street**  
**Honolulu, Hawaii**  
**Tax Map Key: 2-1-47:03**  
**Traffic Access Analysis Memorandum**

The Traffic Management Consultant (TMC) is pleased to submit this Traffic Access Analysis Memorandum for the Kakaako Workforce Housing Project at 801B South Street, Honolulu, Hawaii. The purpose of this Memorandum is to analyze the project access on Kawaiahao Street and on Kapiolani Boulevard.

### **Project Description**

The proposed 801B South Street is a 410-unit residential condominium, which will be constructed on a portion of the old Honolulu Advertiser site between Kawaiahao Street and Kapiolani Boulevard. A portion of the former Honolulu Advertiser office building is expected to be renovated, and is included in the analysis of the 801B South Street project.

Site access is proposed on Kawaiahao Street and on Kapiolani Boulevard. The access driveway is analyzed as a two-way, two-lane driveway, which will extend from Kawaiahao Street to Kapiolani Boulevard. The Kapiolani Boulevard driveway will operate as a stop-controlled Tee-intersection, where traffic will be restricted to right-turn-in and right-turn-out movements only. The Kawaiahao Street driveway will operate as a stop-controlled, full-access driveway.

The site will include 795 parking stalls. Ninety-five (95) stalls will be allocated to the former Honolulu Advertiser office building. Approximately 25 percent of the remaining 700 parking stalls (175 stalls) is expected to be available to the public for monthly rental parking during the weekdays.

**Trip Generation Analysis**

The trip generation for the 801B South Street is based upon the ITE trip generation rates for a High-Rise Condominium.

The trip generation from the daytime parking was estimated by converting the number of parking stalls into 1,000 square feet of gross floor area of an office building using the parking demand regression equation developed by ITE and published in Parking Generation, 2010. The 175 daytime parking stalls are equivalent to a 100,000 SFGFA office building. The ITE trip rates for a general office building were used to estimate the trip generation from the 175 daytime parking stalls at the proposed project, as well as the 30,000 square feet of floor area from the former Honolulu Advertiser building. Table 1 summarizes the peak hour trip generation from the proposed project.

**Table 1. Trip Generation Summary**

Land Use (ITE Land Use Code)	Units	AM Peak Hour of Adjacent St. Traffic			PM Peak Hour of Adjacent St. Traffic		
		Enter	Exit	Total	Enter	Exit	Total
801A South Street Condominium	635	41	175	216	150	92	242
801A South Street Daytime Parking	229	192	26	218	36	178	214
801B South Street Condominium	410	28	128	148	97	59	156
801B South Street Daytime Parking	175	165	23	188	32	158	190
Former Honolulu Advertiser	30	63	9	72	19	93	112
<b>Trip Totals</b>		489	353	842	334	580	914

**Access Analysis**

Phase 1 (801A South Street) improvements included the removal of on-street parking on Kawaihāo Street between South Street and Emily Street to provide three (3) traffic lanes. Under Phase 2, it is proposed that the center (median) lane on Kawaihāo Street should be restriped to provide an exclusive left-turn lane at the project access driveway, and a two-way, left-turn median lane between the project access driveway and Emily Street. The two-way, left-turn median lane is expected to improve the Kawaihāo Street driveway from LOS "B" to LOS "A" during the AM peak hour of traffic, and from LOS "D" to LOS "C" during the PM peak hour of traffic.

The access driveway on Kapiolani Boulevard is expected to operate at LOS "A", during the AM and PM peak hours of traffic.

Table 2 compares the measures of effectiveness (MOE) during the AM and PM peak hour traffic analyses of the project access driveway on Kawaihāo Street under the Phase 1 improvements, and with the proposed Phase 2 improvements.

Peak Hour	MOE (W/Phase Improvements)	Kawaihahao Street				Access Driveway	
		EB LT	EB TH	WB TH	WB RT	SB LT	SB RT
AM	Volume	197	108	146	208	55	223
	LOS (Phase 1)	A		N/A		B	
	Delay (Phase 1)	8.7		N/A		14.7	
	LOS (Phase 2)	A	N/A	N/A		A	
	Delay (Phase 2)	8.7	N/A	N/A		9.5	
PM	Volume	145	83	176	151	92	355
	LOS (Phase 1)	A		N/A		D	
	Delay (Phase 1)	8.4		N/A		29.0	
	LOS (Phase 2)	A	N/A	N/A		C	
	Delay (Phase 2)	8.4	N/A	N/A		21.1	

Table 3 compares the AM and PM peak hour traffic analyses of the intersection of South Street and Kawaihahao Street under Phase 1 improvements and with the proposed Phase 2 improvements.

Peak Hour	MOE (W/Phase Improvements)	Kawaihahao Street				South Street			Int.
		EB LT	EB TH	WB TH	WB RT	NB LT	NB RT	NB RT	
AM	Volume	11	69	122	148	59	686	184	1279
	LOS (Phase 1)	B	C	C	A	A	A	A	A
	Delay (Phase 1)	12.8	19.2	19.7	6.1	4.0	2.0	3.0	5.6
	LOS (Phase 2)	B	C	C	A	A	A	A	A
	Delay (Phase 2)	14.1	21.0	20.3	6.3	4.7	2.7	4.3	6.3
PM	Volume	40	44	103	229	30	1494	130	2070
	LOS (Phase 1)	C	D	E	B	A	A	A	A
	Delay (Phase 1)	18.9	29.1	36.8	14.9	5.0	3.9	4.2	8.3
	LOS (Phase 2)	C	D	E	B	A	A	A	A
	Delay (Phase 2)	21.3	28.8	37.9	12.4	5.4	3.9	4.3	8.0

The Ewa bound (WB) through movement on Kawaihahao Street at South Street is expected to operate at LOS "E", during the PM peak hour of traffic under existing roadway conditions.

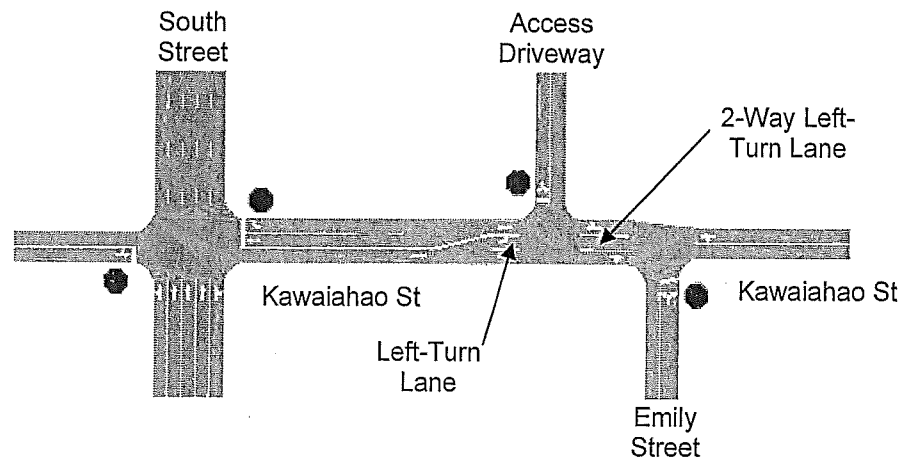
### Queuing Analysis

Based upon an average vehicle length of 25 feet, the 95-percentile queue of traffic at the Phase 2 parking garage entrance is expected to be about 75 feet in length, during the AM peak hour.

### Proposed Traffic Improvements

Phase 1 (801A South Street) improvements included the removal of on-street parking on Kawaiahao Street between South Street and Emily Street to provide three (3) traffic lanes. Under Phase 2, the median lane should be restriped at the project access driveway to provide the following improvements:

1. An exclusive left-turn lane should be provided on Koko Head bound Kawaiahao Street at the project access driveway.
2. A two-way left-turn median lane should be provided on Kawaiahao Street between the project access driveway and Emily Street, to facilitate the left-turn movement from the project access driveway.



3. The entry gate to 801B South Street parking garage should be located a minimum of 75 feet from the driveway lane to minimize queued traffic from blocking the driveway lane between Kapiolani Boulevard and Kawaiahao Street.
4. On-street parking on the Koko Head side of South Street should be removed to provide a 200-foot sight distance from the exit driveway at the drop-off area at Phase 2.

If a traffic signal warrant study is conducted at the intersection of South Street and Kawaiahao Street after Phase 1 or Phase 2 is built, future traffic demands at the intersection may meet more than one signal warrant.

If you require clarification on any of the above material or have any other questions, please do not hesitate to call me.

Very truly yours,

**The Traffic Management Consultant**



By

**Randall S. Okaneku, P. E.  
Principal**