Appendix E

Traffic Report

Albert Grover and Associates



October 21, 2010

Ms. Joan Wolff Consulting Planner Planning Division 303 W. Commonwealth Avenue, 3rd Floor Fullerton, California 92832

Re: Focused Traffic Study for Proposed Car Wash at 520 S. Euclid Street

Dear Ms. Wolff:

Pursuant to your request, Albert Grover & Associates (AGA) has conducted a focused traffic study for a vacant used car sales facility located at 520 S. Euclid Street (south of Valencia Drive) in Fullerton proposed to be converted to a 5,000 S.F. car wash facility by Year 2011. Our scope of services for this project was to determine what the potential increase in project trips due to the car wash facility conversion will be along Euclid Street (south of Valencia Drive). Our analysis involves calculating project trip generation for the proposed car wash facility to obtain project trips, and determining daily traffic along Euclid Street both with and without project.

Project Trip Generation

The project trip rates for a car wash facility were derived using the 2009 Institute of Transportation Engineers (ITE) – 8^{th} Edition Trip Generation Manual and the San Diego Association of Governments (SANDAG) Traffic Generators Manual. Trip generation rates for Automated Car Wash (ITE Code 948) were used for the proposed car wash facility since such facilities allow for the mechanical cleaning of the exterior of vehicles, manual cleaning of the interiors, and/or car detailing services on-site. The trip generation was determined for both Weekday PM Peak Hour of Adjacent Street Traffic and the Weekday Daily time periods. The results are summarized below in Table 1:

Land Use	ITE Cod	Qty	Time Period	Rate	In	Out	Total
Automated Car Wash *	948	5 KSF	PM Peak Hour of Adjacent Street	14.12	35	35	70
			Weekday Daily	156.89	392	392	784

Table 1. Project Trip Generation for Automated Car WashFacility

* Weekday Rate for Automated Car Wash based on empirical relationship between San Diego Association of Governments (SANDAG) Weekday Daily and Weekday PM Peak Hour Rates for Automatic Carwash

The trip generation results show that the proposed car wash conversion will result in an increase of 70 total trips during the Weekday PM Peak Hour and 784 total trips daily. The project trips are distributed evenly with 50% of the trips coming from the north and 50% of the trips coming from the south. Additionally, there is a 50% inbound/50%outbound directional distribution to/from the project site. This results in a total of 35 additional PM Peak Hour trips and 392 additional Daily trips along Euclid Street north of the proposed project site, and the same number south of the proposed project site.

Average Daily Traffic (ADT)

An Average Daily Traffic (ADT) analysis was conducted for Existing Conditions and for Project Opening Day Year 2011 and Future Buildout Year 2035 scenarios both with and without project. Existing Weekday PM Peak Hour traffic counts for the Euclid Street/Valencia Drive intersection and Average Daily Traffic (ADT) counts for Euclid Street (south of Valencia Drive) were obtained from the City of Fullerton. Future Weekday PM Peak Hour traffic volumes for the Euclid Street/Valencia Drive intersection for Opening Day Year 2011 and Future Buildout Year 2035 were obtained from the Orange County Transportation Authority Model (OCTAM). The ADT for Existing Conditions, Opening Day Year 2011, and Future Buildout Year 2035 are summarized below in Table 2:

Table 2. Average Daily Traffic (ADT)Along Euclid Street (South of Valencia Drive)

Land Use	Without Project	With Project	% Increase	
Existing Conditions Year 2008	38,300	N/A	N/A	
Opening Day Conditions Year 2011	39,000 *	39,400	1 %	
Future Buildout Conditions Year 2035	39,000 *	39,400	1 %	

* Source: Orange County Transportation Authority Model (OCTAM), ADT rounded to nearest 100th vehicles

Conclusion

Based on trip generation and ADT analyses for the car wash conversion, the project contributes a total of 35 PM Peak Hour trips and 392 Daily trips along Euclid Street (south of Valencia Drive), which is relatively insignificant.

Please call us if you have any questions.

Respectfully submitted,

ALBERT GROVER & ASSOCIATES

David L Chen, P.E. Associate Transportation Engineer

Fullerton/520 S. Euclid Street

Appendix F

City of Fullerton Engineering Department Sewer Capacity Analysis

A sewer analysis was done for the above project with findings below:

Assumptions: In bay car wash Sewage generation for car wash = 5 gpm peak x 412/gpm = 2,060 gpd = 0.0021 mgd (City of Los Angeles sewer manual table F229) Sewage generation for residential single family dwelling unit = 330 gpd/unit.

The existing 8" VCP sewer main in the alley from MH 18-22 to 1-22 was checked to see if it has enough capacity to handle the additional sewage generated from the proposed development. This line is handling approximately 129 single family dwelling units.

129 unit x 330 gpd/unit = 42,570 gpd = 0.0426 mgd

Adding car wash sewage: 0.0426 mgd + 0.0021 mgd = 0.0447 mgd

The result for this 8" VCP line with the proposed car wash is 15% full.

This 8" VCP line outlets into a 10" VCP line heading west in Valencia Dr. at MH 1-22. Below is the summary for year 2035 wet weather flow (2035 WWF) based on the sewer model provided by the Sewer Master Plan consultant to verify that the existing system has enough capacity to handle this proposed development. In mathematical format:

If 2035 WWF + 0.0021 mgd < Pipe capacity (mgd), then it can be safely concluded that this proposed project does not impact the existing system.

Unstroom MH (mad)		Dino sizo (inchos)	Pipo capacity (mod)	2025 \\/\/\/E
1-22	9-20	10		0.81
9-20	7-20	10	0.002	0.01
7-20	6-20	10	0.859	0.001
6-20	5-20	10 (pro-siphon)	0.850	0.01
5-20	<u> </u>	10 (pre-sipriori)	0.851	0.816
4-20	4-20	10 (double siphon)	0.851	0.010
2 20	3-20		0.834	1.061
2.20	2-20	12	1.118	1.001
2-20	1-20 5-19	12	1.110	1.039
1-20	J-10	12	1.565	1.455
5-18	4-18	12	1.586	1.349
4-18	3-18	12	1.581	1.339
3-18	2-18	12	1.64	1.398
2-18	1-18	12	1.639	1.399
1-18	91-17	12	1.696	1.457
91-17	66-15	12	1.693	1.457
66-15 Split flow	15-16	18	0.593	0.487
15-16	32-16	18	0.59	0.486
32-16	46-16	18	0.702	0.593
46-16	71-16	18	0.699	0.592
71-16	85-16	18	0.772	0.659
85-16	84-16	18	0.576	0.507
84-16	97-16	18	0.575	0.507
97-16	OCSD	27	2.57	2.526
66-15 Split flow	65-15	12	1.117	0.968
65-15	14-16	24	0.939	0.832
14-16	30-16	24	0.94	0.832
30-16	56-16	24	0.937	0.831
56-16	70-16	24	0.93	0.829
70-16	83-16	24	0.93	0.829
83-16	OCSD	27	1.107	0.981