



SCHWARTZ SEMERDJIAN  
Attorneys at Law

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JOHN S. MOOT

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March 20, 2018

VIA U.S. MAIL AND EMAIL

Stan Donn, AICP, Project Manager  
City of Chula Vista, Development Services Department  
276 Fourth Avenue, Chula Vista, CA 91910  
Email [sdonn@chulavistaca.gov](mailto:sdonn@chulavistaca.gov)

**Re: DR 15-0037, CUP 15-0023 (Appeal)  
Wash-N-Go carwash**

Dear Mr. Donn:

I am writing this letter on behalf of Mr. Rod Bisharat who is the owner of business directly across the street from the proposed Wash- N-Go carwash located at 495 Telegraph Canyon Rd. Mr. Bisharat filed an appeal of the Planning Commission decision approving the project and the Conditional Use Permit. The matter is set for hearing on March 27, 2018.

The Notice of Public Hearing indicates that the project will be reviewed under a categorical exemption to the California Environmental Quality Act (CEQUA) pursuant to Section 15332 of the State CEQUA Guidelines. The Appellant takes exception to an approval pursuant to this CEQUA exemption which is meant to apply to In-Fill Development Projects where the project would not result in significant effects to traffic, noise, air quality, or water quality. This CEQUA exemption does not apply where the proposed project's unusual size, location, nature and scope will have significant environmental impacts on its surroundings. A significant effect on the environment means a substantial or potentially substantial, adverse change in the environment to any of the physical conditions within the area affected by the project including land, air, water and ambient noise. The Development Services Director serves as the initial finder of fact as to whether a particular project presents circumstances that are unusual for projects in the exempt class.

The proposed Wash-N-Go carwash is not your typical or usual infill development. It is located on the site of a former gasoline station which has contaminated soil which has levels of Ethylbenzene which is a known carcinogenic as well as levels Toluene and Xylene as documented in the March 8, 2002 letter from the County of San Diego Department of Environmental Health Plan and Water Quality Division. The contaminated soil may also contain Benzene, also a known carcinogenic, as well as Xylene and MTBE which at the time of the 2002 testing were not capable of being detected because of the then available limits of the testing equipment in 2002. According to the County's report, there are 20 cubic yards of contaminated soil on-site with concentrations exceeding 100 mg/kg. The report also indicates that corrective



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action should be reviewed if the land use changes. Given new construction and grading will occur on the site where there is documented contaminated soils, this potentially substantial environmental effect within the area affected by the project needs to be studied to determine whether it is significant.

The purpose of CEQUA is to inform the public and decision makers about the potential environmental effects prior to a project approval and identify ways environmental damage can be avoided or significantly reduced by adoption of mitigation measures or changes in the project.<sup>1</sup> Typically, when a former gasoline station site has contaminated soils and is redeveloped, the City within the jurisdiction of the project and/or for the bank lending institution requires current soil testing before the project is approved and removal of any contained soil as a condition of any approval. In order for the City to be an unbiased factfinder and the public adequately informed of potential environmental impacts, soil tests should be required to document the current conditions before Council approval and a public hearing and any contaminated soils be removed as a condition of project approval.

The materials on which the Planning Commission approved the project made no mention of contaminated soils on-site nor any environmental analysis report relied on by the Commission for its approval of a development on contaminated soils. Also of significance is the fact that the civil engineering plans apparently reference a dry well system where water generated on-site, for example water coming off of cars after they are washed, is treated and then injected back into the soil. The leaching of water on-site through soils contaminated with known carcinogens may have environmental effects on the water table below and needs some level of environmental analysis rather than simply relying on a categorical exemption that assumes, without study, there are not any environmental effects on water quality.

The Wash-N-Go project also has other features that distinguish it from others in the exempt class based on its location directly adjacent to a dedicated lane for a freeway on-ramp and the potential traffic impacts on the intersection of Halecrest Drive and Telegraph Canyon Road. A traffic impact analysis done for the Sharp Chula Vista Medical Center recently established that the Telegraph Canyon Road/I-805 NB ramp will operate at a D level of service as well as the street segment between Halecrest Drive to Oleander Avenue. Near-Term plus Project Conditions in the same study revealed that the Near Term Operations of this on-ramp in peak PM hour conditions will operate at a E level of service as will the street segment between Halecrest Drive and Oleander Avenue. See, attached tables.

The section of Telegraph Canyon Road and the 805 freeway which directly abuts the Project is one of the busiest in the city. The intersection at the project site at Halecrest Drive is

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<sup>1</sup> Pub. Res. Code § 21000,21001



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already significantly impacted. When the land for the new lane to ease traffic congestion on Telegraph Canyon Road was acquired from both the Appellant's property and former gasoline station at 495 Telegraph Canyon Rd., access from the project site onto Telegraph Canyon Road was prohibited as noted by the City's traffic engineer at the Planning Commission Hearing. The project as approved by the Planning Commission removes this condition without any analysis of how this new circulation from the site may impact an on-ramp already projecting to be operating in a E level service not to mention the safety issues presented by cars lining up to turn onto a busy freeway on-ramp.

The location of the project with cars exiting onto Halecrest Drive where the street segment at this intersection is also projected to operate at a E level of service needs to be evaluated. Under current conditions when there are two or more vehicles stopped at the intersection of Halecrest Drive and Telegraph Canyon Road, cars cannot exit the project site. See, attached pictures. Because of the traffic conditions at the on-ramp, the Halecrest driveway will be the area where patrons will exit the site but will be blocked when cars are stopped at the light. To compound this problem, the driveway for existing the gas station owned by Appellant is directly across the street on Halecrest. Because of the high volume of traffic on Telegraph Canyon Road this is also the exiting driveway for the gas station. "Experience with the mainsprings of human conduct..."<sup>2</sup> are alone enough to predict the traffic conflicts and potential dangers of cars competing to enter onto Halecrest with cars already waiting to turn right to get onto the freeway or proceed west on Telegraph Canyon Road. However, rather than speculating on the variables of human conduct, a traffic impact and safety analysis should be done by the neutral factfinder, the City. A traffic safety analysis is necessary rather than relying on a categorical exemption where there is a reasonable possibility, due to the unusual nature of the location of the project, that the project will have a significant impact on the traffic environment.

Lastly, the administrative record for the planning commission contains letters from an attorney for a Judy Walsh that contests the adequacy of a study regarding environmental impact of the project on the noise level affecting the Walsh's home and nearby neighbors. I noted from reading this attorney's letter that he likewise felt not only did the record not support a finding this particular project **will not be** a detrimental impact to the health, safety or general welfare of persons residing or working in the vicinity or injurious to property in the area, but he also took exception based on the noise impacts that the project is exempt under CEQUA. This attorney's letter, a copy of which is attached, apparently prompted an additional noise analysis which would also lead to a conclusion that the project should not be exempt but instead environmental impacts, including cumulative impacts of noise, should be considered under CEQUA.

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<sup>2</sup> *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1114.



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One obvious solution to the noise impacts on the adjacent residential area would be to relocate the noise generating drying blowers to an area that is already adjacent the freeway on-ramp rather than having it directly adjacent to the residential homes. It is not clear from the administrative record of the Planning Commission hearing why this more obvious site plan which would address the noise conditions was not considered in a CEQUA alternative analysis or implemented as a condition of the CUP permit. The Appellant is familiar with the large decibels of noise generated by these blowers and feels Mrs. Walsh's concerns are appropriate and they create a potentially substantial change in the environment as it affects ambient noise. The applicant owns another carwash in the Rosecrans area which could be used as a comparative basis for a noise study that addresses concerns reflected in the attorneys letter.

On behalf of Mr. Bisharat, I would ask that you not evaluate this project under categorical exemption for infill projects but instead undertake a CEQUA environmental analysis so the public and decision makers are adequately informed of the impacts of this project prior to a public hearing and can consider alternatives or mitigation measure and changes to the project which might avoid or reduce the environmental impacts. This is based on the unusual circumstances of the project location as not only being on top of a former gasoline station site with contaminated soils, but also as being adjacent to a busy and already impacted freeway on-ramp and intersection with projected E levels of service. The safety of persons simultaneously exiting the project site and Mr. Bisharat's gas station and those already using Halecrest Drive at the intersection of Telegraph Canyon Road needs to be carefully evaluated and considered to avoid a public safety hazard. Pictures of the applicant's existing car wash and the significant number of cars using his car wash demonstrate how such a project causes back ups and conflicts with the existing street system.

Sincerely,

John S. Moot  
of

SCHWARTZ SEMERDJIAN  
CAULEY & MOOT LLP

JSM:ac

cc

Councilmember Patricia Aguilar, District 2 [paguilar@chulavistaca.gov](mailto:paguilar@chulavistaca.gov);

Assistant City Attorney Mike Shirey [MShirey@chulavistaca.gov](mailto:MShirey@chulavistaca.gov);

Chris Bauer [cbauer@chulavistaca.gov](mailto:cbauer@chulavistaca.gov); Rima Thomas [rthomas@chulavistaca.gov](mailto:rthomas@chulavistaca.gov);

Caroline Young [CYoung@chulavistaca.gov](mailto:CYoung@chulavistaca.gov); Steve Power [SPower@chulavistaca.gov](mailto:SPower@chulavistaca.gov)



DM<sup>AT</sup>

# County of San Diego

GARY W. ERBECK  
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH  
LAND AND WATER QUALITY DIVISION  
P.O. BOX 129261, SAN DIEGO, CA 92112-9261  
(619) 338-2222 FAX (619) 338-2377  
1-800-253-9933

RICHARD HAAS  
ASSISTANT DIRECTOR

March 8, 2002

Mr. Roy Thun  
ARCO Products Company  
4 Centerpointe Dr.  
La Palma, CA 90623-1066

Dear Mr. Thun:

UNDERGROUND STORAGE TANK (UST) CASE H12571-002  
ARCO NO. 6138  
495 TELEGRAPH CANYON RD., CHULA VISTA, CA 91910

This letter confirms the completion of a site investigation and corrective action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks is greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact Danny Martinez at (619) 338-2456 if you have questions regarding this matter.

Sincerely,

GARY W. ERBECK, Director  
Department of Environmental Health  
Site Assessment and Mitigation Program

DM:GWE:kd

Enclosure

cc: Regional Water Quality Control Board  
Allan Patton, SWRCB, UST Cleanup Fund Program  
Fabio Minervini, England Geosystem Environmental Engineering

WP/H12571-2-CLO

*"Environmental and public health through leadership, partnership and science"*

**Case Closure Summary**  
Leaking Underground Fuel Storage Tank Program

**I. AGENCY INFORMATION**

DATE: March 1, 2002

Agency Name: County of San Diego, Environmental Health, SAM	Address: P.O. Box 129261	
City/State/ZIP: San Diego, CA 92112-9261	Phone: (619) 338-2222	FAX: (619) 338-2377
Responsible Staff Person: Danny Martínez	Title: Environmental Health Specialist	

**II. CASE INFORMATION**

Site Facility Name: ARCO Station 6138				
Site Facility Address: 495 Telegraph Canyon Road, Chula Vista, CA 91910				
RB LUSTIS Case No: N/A	Local Case No: H12571-002		LOP Case No: N/A	
URF Filing Date: 18 August, 1999	SWEEPS No: N/A			
Responsible Parties:	Address:		Phone Number:	
ARCO Attn: Roy Thun	4 Centerpointe Dr. La Palma, CA 90623		(651) 2873855	
Tank No.	Size In Gal.	Contents	Closed In Place/Removed	Date
1	None (dispenser upgrade)	N/A	N/A	N/A

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and Type of Release: Gasoline from leaking product dispenser			
Site Characterization complete?	Yes	Date Approved By Oversight Agency: January 23, 2002	
Monitoring Wells Installed?	No	Number: N/A	Proper Screened Interval? N/A
Highest GW Depth Below Ground Surface: > 40 feet		Lowest Depth: unknown	Flow Direction: unknown
Most Sensitive Current Use: Groundwater having designated beneficial uses for agricultural and potential beneficial for municipal Surface water having designated beneficial uses for industrial, non-contact water recreation and various habitats			
Are Drinking Water Wells Affected?	No	Aquifer Name: Telegraph Area/Sweetwater Hydrologic Unit (909.11)	
Is Surface Water Affected?	No	Nearest/Affected SW name: Telegraph Canyon adjacent to the site	
Off-Site Beneficial Use Impacts (addresses/locations): none			
Report(s) on file? Yes	Where is Report(s) Filed? County of San Diego, Environmental Health		
<b>TREATMENT AND DISPOSAL OF AFFECTED MATERIAL</b>			
Material	Amount (Include Units)	Action (Treatment or Disposal w/ Destination)	Date
Tank(s)		Removed in 1991	
Soil (from borings)	5 drums	Disposed to TPS in Adelanto	10/24/01
Decontamination Water	55 gallons	Disposed to Demenno Kerdoon	10/24/01

**Case Closure Summary**  
Leaking Underground Fuel Storage Tank Program

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)**

H 12571-002

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS - - BEFORE AND AFTER CLEANUP									
Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	2400	2400	N/A	N/A	Ethylbenzene	9.3	9.3	N/A	N/A
Benzene	< 2	< 2	N/A	N/A	Xylene	200	200	N/A	N/A
Toluene	11	11	N/A	N/A	MTBE	<14	<14	N/A	N/A

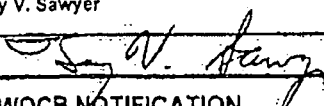
**Comments:**  
Soil samples taken during dispenser upgrades revealed Total Petroleum Hydrocarbon contamination beneath dispensers at approximately 3.5 feet below ground surface (bgs). Subsequent sampling from soil borings drilled to 40 bgs revealed contaminant concentrations are below laboratory detection levels indicating that the contamination is restricted to shallow depths. Groundwater was not encountered in any of the borings drilled during the assessment.  
The consultant states that approximately 20 cubic yards of contaminated soil with concentrations exceeding 100 mg/kg remains onsite. From the information submitted as part of the assessment, there appears to be no risk to human health or the environment and no clean-up is required.

Case 001 (closed in 1997) involved contamination from underground storage tanks. Soil vapor extraction was performed for three years and confirmation samples taken in 1997 revealed that remediation was successful.

**IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?	Yes
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?	Yes
Does corrective action protect public health for current land use?	Yes
Case oversight completed based upon the current/future site use as a gas station.	
<b>Site Management Requirements:</b>	
Any contaminated soil excavated as part of subsurface construction work must be managed in accordance with the legal requirements at that time.	
Should corrective action be reviewed if land use changes?	Yes
Monitoring Wells Decommissioned:	No
Number Decommissioned:	N/A
Number Retained:	N/A
List Enforcement Actions Taken: Notice of Corrective Action and Reimbursement Responsibility	
List Enforcement Actions Rescinded: N/A	

**V. LOCAL AGENCY REPRESENTATIVE DATA**

Name: Tony V. Sawyer	Title: Hydrogeologist Land and Water Quality Division
Signature: 	Date: 3-4-2

**VI. RWQCB NOTIFICATION**

Date Submitted to RB: N/A soils only case	RB Response: N/A
RWQCB Staff Name: N/A	Title: N/A
	Date: N/A

**VII. ADDITIONAL COMMENTS, DATA, ETC.**

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This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.



# SCHWARTZ SEMERDJIAN

Attorneys at Law

JOHN S. MOOT

Direct dial: (619) 557-3531

E-mail: johnm@sscmlegal.com

October 3, 2018

VIA U.S. MAIL AND EMAIL

Stan Donn, AICP, Project Manager  
City of Chula Vista, Development Services Department  
276 Fourth Avenue, Chula Vista, CA 91910  
Email [sdonn@chulavistaca.gov](mailto:sdonn@chulavistaca.gov)

Re: DR 15-0037, CUP 15-0023 (Appeal)  
Wash-N-Go carwash

Dear Mr. Donn:

On March 20, 2018, I wrote you a letter, a copy of which is attached, taking exception to the City of Chula Vista considering the Wash-N-Go carwash located at 495 Telegraph Canyon Road under a categorical exception to the California Environmental Quality Act (CEQUA). The exemption to an approval pursuant to CEQUA is meant to apply to In-Fill Development Projects where the project would not result significant effects to traffic, noise, air quality, or water quality. This exemption does not apply where the project has some feature that distinguishes it from others in the exempt class, such as size or location and there is a reasonable possibility of a significant effect on the environment due to the unusual circumstances. These unusual circumstances are outlined in my previous letter which is incorporated by reference herein.

On October 1, 2018, I had a conference call with Justin Rasas, P.E. of LOS Engineering, Inc. regarding his preliminary traffic operations review for the proposed carwash on Telegraph Canyon Road/Halecrest Drive. There are multiple issues with the traffic analysis prepared by Frank Rivera as documented in his May 9, 2018 memorandum. The first is that Mr. Rivera does not use any baseline analysis for trip generation. Even in evaluating the unusual circumstances exception, the agency must use a baseline for an environmental analysis which must reflect the existing conditions at the time of the analysis, even if those conditions deviate from the level of development or activity authorized at the site.

Mr. Rivera's report starts with vehicle trips from a 10 year old previous use at the car wash site when it was used as a gas station and then seeks to compare it with trip generations reported by the applicant with no supporting traffic data. The site today is a Goodwill donation center and auto repair shop. He then makes certain assumptions to arrive at a statement that the proposed carwash would generate a maximum number of 600 vehicles per day. Mr. Rivera also assumes that the maximum rate the carwash tunnel can process is 40 to 50 vehicles per hour. Counting



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both in and out trips this would come to 1,200 trips per day.<sup>1</sup> Mr. Rivera then uses the SANDAG Trip Generation rate of 600 vehicles per day per acre for a carwash times 0.55 acre site to equal 330 vehicles per day. From this Mr. Rivera concludes that the worst p.m. peak hour trip generation is 30 vehicles at the peak period.

First, Mr. Rivera's analysis assumes a baseline provided by the applicant and then compares it with a previous use trip generation as opposed to using an established baseline for the current use. Such an analysis would violate basic CEQA Guidelines which should take into consideration a baseline of existing conditions and can include potential future conditions. See *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552. A comparison of a 10 year old condition with an assumed vehicle trip generation is not an analysis of a current baseline condition required by CEQA.

A comparison from other sources for car wash trip generation indicates the assumed vehicle generation used by Mr. Rivera is substantially understated. The SANDAG publication for automatic carwash shows a rate of 900 vehicles per day per site with a peak p.m. hour of 81 trips. Additionally, Mr. Rivera uses the lower rate (600 ADT/acre resulting in 30 p.m. trips) from SANDAG as opposed to the higher SANDAG rate (900 ADT/site resulting in 81 p.m. trips). When compared to the Institute of Transportation Engineer's Trip Generation rates, the trip generation shows p.m. peak hour generation of 78 trips which is much more consistent with the SANDAG source generation of 81 p.m. trips based on 900 ADT/site. A comparison with other sources of trip rates show a low of 78 at p.m. peak hour to a high of 219. Even the lowest number of trip generations for the peak hour is over twice that used by Mr. Rivera based on his assumptions.

The standard practice to determine whether a traffic study is needed looks at whether the project exceeds 50 trip generations during the peak hour. The trip generation comparison from other available sources clearly indicates that the carwash project will exceed 50 trips per peak hour. The City of Chula Vista has required traffic studies on projects that generate far less than 50 peak hour trips. Caltrans' criteria on affected state highway facilities that experience significant delays such as levels of service of E or F recommends traffic studies where the project generates 1 to 49 peak hour trips.

There appears to be no support for an analysis that compares a 10-year-old previous use to an unsubstantiated and assumed current use that is substantially less than independently reported sources of car wash trip generation to determine that there is no impact on traffic.

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<sup>1</sup> The site plan indicates an 82 foot building which would accommodate an 80 foot tunnel which according to the Sonny's, the manufacturer, can process 90 cars per hour.



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Mr. Rivera's analysis is also flawed in that it looks at levels of service based on a segment analysis as opposed to an intersection analysis. The intersection analysis for Telegraph Canyon at the I-805 northbound ramp shows a near-term Level of Service E (LOS E) based on the Sharp Hospital Traffic Study and characterizes this as a cumulative impact. Without a traffic study, it is impossible to know whether there will be additional cumulative impacts to the Telegraph Canyon Road/I-805 northbound ramp intersection and indeed whether it might cause it to go from an E to an F.

Under Environmental Impact Analysis for Transportation and Circulation, CEQA guidelines indicate that significant impacts will exist if there is a reasonable possibility that the project would substantially increase hazards due to a design feature and/or would result in an inadequate emergency access. Mr. Rasas' analysis shows that the car wash driveway on Halecrest Drive was blocked 19% of the time between 4 and 6 p.m. and during the peak hour for 4:45- 5:45 p.m. is blocked 20% of the time. This means if one carwash patron stops and waits to turn left they will block the sole northbound travel lane creating potential spill back into Telegraph Canyon Road. This will also create delays for patrons at the ARCO gas station across the street. This preliminary analysis demonstrates that the proposed car wash has a potentially significant impact and could block the busy Telegraph Canyon intersection adjacent to the freeway entry and exit which could affect emergency vehicles. Given that the preliminary study shows blockage of 20% during peak hours, by failing to do a traffic study, the City is avoiding an analysis of known conditions and how that would affect not only Mr. Bisharat's business, but the surrounding area. Persons trying to turn into the carwash heading northbound may find themselves blocked and would likely travel into the residential neighborhood to find a place to turn around which could impact the residential neighborhoods.

The conclusion of the preliminary analysis is that the proposed car wash has a significant potential to exceed the trip generation levels that would require a traffic study under City of Chula Vista and Caltrans' criteria. The fact that this preliminary analysis demonstrates that the Hillcrest driveway will be blocked 20% of the time during the peak hour demonstrates there is a reasonable possibility of a significant effect on the environment.

Mr. Rasa and I are willing to meet with you, Mr. Rivera, Mr. Shirey and anyone else you feel is appropriate to go over his preliminary review in advance of a presentation at a public hearing as



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we believe a traffic study and some CEQUA analysis should be done before this matter is considered by the City Council.

Sincerely,

John S. Moot  
of

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CAULEY & MOOT LLP

JSM:ac

cc

Assistant City Attorney Mike Shirey [MShirey@chulavistaca.gov](mailto:MShirey@chulavistaca.gov);

Caroline Young [CYoung@chulavistaca.gov](mailto:CYoung@chulavistaca.gov); Steve Power [SPower@chulavistaca.gov](mailto:SPower@chulavistaca.gov)



**LOS Engineering, Inc.**  
**Traffic and Transportation**

11622 El Camino Real, Suite 100, San Diego, CA 92130  
Phone 619-890-1253, E-mail: Justin@LOSEngineering.com

September 16, 2018

Mr. Rod Bisharat  
Telegraph Canyon Union  
501 Telegraph Canyon Road  
Chula Vista, CA 91910

SUBJECT: Potential Arco Driveway Impacts from a proposed Car Wash at Telegraph Canyon Rd/Halecrest Dr.

Dear Mr. Bisharat:

The purpose of this letter is to help answer your question: "Will the planned car wash on the northeast corner of Telegraph Canyon Road/Halecrest Drive impact your ARCO business driveway on Halecrest Drive?"

#### TRAFFIC SIGNIFICANCE CRITERIA

The City of Chula Vista follows significance criteria as outlined in recent Environmental Impact Reports (EIRs) for new and redevelopment projects. The City's traffic criteria identify how much new traffic can be added before an impact is determined and when a traffic study should be completed based on the San Diego Traffic Engineers' Council/Institute of Transportation Engineers (SANTEC/ITE) 50 peak hour trip criteria. In other words, if a project generates more than 50 peak hour trips, then the intersection(s) receiving 50 peak hour directional trips should be analyzed. Please note that there are some Chula Vista EIRs that analyzed intersections with far fewer than 50 peak hour trips. For example, the 2016 Sharp Ocean View Tower Project EIR included the intersections of Telegraph Canyon Road/I-805 SB Ramp with only 36 peak hour directional trips and Telegraph Canyon Road/I-805 NB Ramp with only 38 peak hour directional trips. EIR examples and the impact criteria are included in **Attachment A**.

Caltrans also has significance criteria to determine when a traffic study is required. Caltrans' *Guide for the Preparation of Traffic Impact Studies*, December 2002 criteria is included in **Attachment B**, which states:

*The following criterion is a starting point in determining when a TIS is needed.  
When a project:*

- 1. Generates over 100 peak hour trips assigned to a State highway facility*
- 2. Generates 50 to 100 peak hour trips assigned to a State highway facility  
– and, affected State highway facilities are experiencing noticeable delay;  
approaching unstable traffic flow conditions (LOS "C" or "D").*

3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis<sup>4</sup>:
- Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS “E” or “F”).*
  - The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).*
  - Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).*

**PROJECT TRIP GENERATION**

The trip generation for a proposed project can be calculated using: 1) San Diego Association of Governments (SANDAG) book rates, 2) ITE book rates, and 3) site specific data collected from identical uses. In addition to book rates, other traffic studies can be reviewed to determine what trip generation was used for other car wash projects. Using available book rates and trip generation from other traffic studies (**Attachment C**), a comparison of the potential traffic generation for a car wash ranges from a low of 36 AM peak hour trips to a high of 219 PM peak hour trips with an average of 69 AM and 128 PM peak hour trips as shown in **Table 1**.

**Table 1: Car Wash Trip Generation Comparison**

SANDAG, ITE, and				AM Peak Hour			PM Peak Hour		
Other Source Trip Rates	Rates & Size	Daily	IN	OUT	Total	IN	OUT	Total	
SANDAG	Rates: 900 /Site		0.50	0.50	4%	0.50	0.50	9%	
Automatic Car Wash	Size: 1 Site	Trips: <b>900</b>	18.0	18.0	<b>36</b>	40.5	40.5	<b>81</b>	
ITE (948) Weekday	Rates:	No data			No data	38.75	38.75	77.50	
Automatic Car Wash	Size: 1 Site					39	39	<b>78</b>	
Anaheim Express Car Wash	Traffic Study:	<b>1,213</b>	39	28	<b>67</b>	63	65	<b>128</b>	
Victorville Car Speedwash	Traffic Study:	<b>2,079</b>	66	49	<b>115</b>	108	111	<b>219</b>	
Matt's Express Car Wash	Traffic Study:	<b>944</b>	29	29	<b>58</b>	67	67	<b>134</b>	
					Low:	<b>36</b>	Low:	<b>78</b>	
<b>Low, Average, and High Peak Hour Volumes:</b>					Average:	<b>69</b>	Average:	<b>128</b>	
					High:	<b>115</b>	High:	<b>219</b>	

Notes: Institute of Transportation Engineers (ITE) 10th Edition *Trip Generation*. SANDAG *Brief Guide of Vehicular Traffic Generation*. Rates for the San Diego Region, April 2002. Anaheim and Victorville data from other traffic studies (details in Attachment C).

The proposed car wash has a significant potential to exceed the trip generation levels that would require a traffic study under City of Chula Vista and Caltrans' criteria.

If a project is replacing an existing and active use, then a trip credit can typically be applied provided actual traffic counts are collected to document the existing baseline conditions. Additionally, the car wash traffic consists of primary and pass-by trips. The applicant of a project would be responsible to document and support any pass-by trips. However, the total number of project trips (without any pass-by reduction) needs to be analyzed at the project driveway – in this case the driveway across from your ARCO access on Halecrest Drive to properly determine if there would be any harmful effects to your business point of access.

*Insh Auto & Trans (9/16/18)*

HALECREST DRIVE

Access to the proposed car wash driveway on Halecrest Drive requires northbound vehicles to cross two oncoming lanes of traffic. If southbound cars block the proposed car wash driveway, then the vehicle will either stop in the travel lane and hope someone will let them turn left, or will have to travel into the residential neighborhood to the north to find a place to turn around. To get an idea of how much the proposed car wash driveway would be blocked, traffic data was collected from 4 to 6 PM on Tuesday, September 11, 2018. The data recorded the frequency and duration of when the blockage started, ended, and duration of blockage (**Attachment D**). The area in question was blocked 37 times between 4-6 PM for a total of 23 minutes and 11 seconds – this is about 19% of study period. The PM peak hour (4:45 to 5:45 PM) had about 12 minutes of blockage or about 20% of the peak hour. If one car wash patron stops and waits to turn left, they will block the sole northbound travel lane creating a potential spillback to Telegraph Canyon Road and create additional delay to your patrons. The area on Halecrest Drive with the documented blockage can be striped with “Keep Clear”; however, it is unknown if this would be 100% effective (without a proper analysis) and it will require approval by the City of Chula Vista.

Spill back

It stops - spill back onto Telegraph Canyon  
blocks intersection of  
(could affect emergency vehicles)

Turn right and stop 20' on left with sensor

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), provides the means to disclose to the public and adjacent property owners such as yourself the potential impacts from a project through the preparation of an initial study, negative declaration, or Environmental Impact Report (EIR). From a traffic perspective, CEQA addresses concerns about how a project would affect operations around your business driveway and if a project would adversely affect emergency access. The CEQA traffic criteria are included in **Attachment E**, which is from the Sharp Ocean View Tower Project EIR. What is also interesting to note is how the Sharp Ocean View Tower Project EIR identified an unacceptable Level of Service (LOS) of “E” under near-term conditions at the intersection of Telegraph Canyon Road/I-805 NB Ramps (**Attachment F**). The City of Chula Vista traffic impact criteria noted previously in Attachment A:

Intersections

- a. Project-specific impact if both of the following criteria are met:
  - i. Level of service is LOS E or LOS F
  - ii. Project trips comprise 5 percent or more of entering volume.
- b. Cumulative impact if only (i) is met.

It appears the proposed car wash has the potential to have an impact at the intersection of Telegraph Canyon Road/I-805 NB Ramps based on a recent EIR that documented a near-term LOS E condition; however, without proper technical analysis this question cannot be properly answered.

Telegraph Canyon  
NOT know if it significant impact - block with sensor if not emergency vehicles.

avoiding (avoidance) analysis - of known condition will that affect Business

OTHER CITY OF CHULA VISTA PROJECTS

I have recently prepared traffic analyses for two projects located in the City of Chula Vista that were calculated to generate far less than 50 peak hour trips. These included a 58-unit Senior Apartment project generating 12 AM and 16 PM peak hour trips (**Attachment G**) and a mixed use project with 23 apartments and 2,325 sf of retail generating 45 AM and 48 PM peak hour trips. The average 128 PM peak hour from Table 1 is eight times the senior project 16 PM peak hour trips ( $128/16=8$ ). It is not clear why the City is not requiring an analysis of a car wash project that has a significant potential to generate more than 50 peak hour trips.

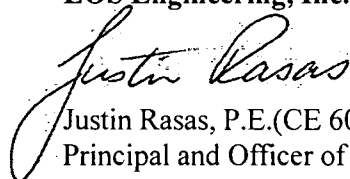
CONCLUSION

The purpose of this letter was to help answer your question: "Will the planned car wash on the northeast corner of Telegraph Canyon Road/Halecrest Drive impact your ARCO business driveway on Halecrest Drive?". The proposed car wash:

- 1) Has a strong potential to exceed the trip generation levels that would require a traffic study under City of Chula Vista and Caltrans' criteria.
- 2) Will encounter at least a 20% PM peak hour blockage on Halecrest Drive with the potential to block the sole northbound travel lane creating a spillback to Telegraph Canyon Road that will also create additional delay to your patrons.
- 3) Has the potential to adversely affect emergency access and roadway operations within the City of Chula Vista and on Caltrans' roadways (EIR documenting near-term LOS E at Telegraph Canyon Road/I-805 NB Ramps).
- 4) Has the potential to generate eight (8) times the PM peak hour traffic over a 58-unit senior housing project that was required to prepare traffic analysis.

The proposed car wash could have significant impacts that only a traffic study would properly address as outlined in CEQA.

Sincerely,  
**LOS Engineering, Inc.**



Justin Rasas, P.E.(CE 60690), PTOE  
Principal and Officer of LOS Engineering, Inc.

ATTACHMENT A

EIR Examples and Traffic Impact Criteria





## **Sharp Ocean View Tower Project**

### Final Environmental Impact Report

EIR 15-0002

SCH No. 2016021010

September 2016

### 5.3 Transportation and Circulation

This section addresses the potential transportation and circulation effects that could result from implementation of the proposed project. A Traffic Impact Analysis (TIA) was prepared for the proposed project by Linscott, Law & Greenspan (LLG) (March 2016) and is included in Appendix B. The analysis in this section addresses and considers City of Chula Vista traffic impact guidance in evaluating the potential for direct and/or cumulative impacts in the existing conditions, near-term conditions, and long-term conditions. Each of these three analyses includes a "without project" scenario and a "with project" scenario to determine the change in conditions due to the project. In addition, this section includes a construction traffic analysis to determine potential traffic impacts during construction.

#### 5.3.1 Existing Conditions

##### 5.3.1.1 Existing Transportation and Circulation

###### Study Area

The transportation study area was determined based on City of Chula Vista standards and the San Diego Traffic Engineers Council/Institute of Transportation Engineers (SANTEC/ITE) Regional Guidelines for Traffic Impact Studies. The study area is shown in Figure 5.3-1 and the facilities analyzed are listed below.

###### INTERSECTIONS

1. Telegraph Canyon Road/Interstate 805 (I-805) Southbound Ramps
2. Telegraph Canyon Road/I-805 Northbound Ramps
3. Telegraph Canyon Road/Oleander Avenue
4. Telegraph Canyon Road/Medical Center Drive
5. Telegraph Canyon Road/Heritage Road
6. Medical Center Court/Medical Center Drive
7. Medical Center Court/Loop Road Access West
8. Medical Center Court/Loop Road Access East
9. Medical Center Court/Main Hospital Driveway
10. E. Palomar Street/Medical Center Drive
11. E. Palomar Street/Medical Center Court
12. E. Palomar Street/Heritage Road
13. Olympic Parkway/I-805 Southbound Ramps
14. Olympic Parkway/I-805 Northbound Ramps
15. Olympic Parkway/Oleander Avenue
16. Olympic Parkway/Brandywine Avenue
17. Olympic Parkway/Heritage Road

### City of Chula Vista Threshold Standards

The City has established specific standards pertaining to direct and cumulative transportation impacts under short- and long-term conditions. These standards are used to evaluate project impacts related to Thresholds 1 and 2, stated above. City thresholds are as follows:

#### Short-term (Next 4 Years)

##### Intersections

a. Project-specific impact if both the following criteria are met:

- i. Level of service is LOS E or LOS F.
- ii. Project trips comprise 5 percent or more of entering volume.

b. Cumulative impact if only (i) is met.

##### Street Links/Segments

If the planning analysis using the v/c ratio indicates LOS C or better, there is no impact. If the planning analysis indicates LOS D, E or F, the GMOC method should be utilized. The following criteria would then be utilized.

a. Project-specific impact if all the following criteria are met:

- i. Level of Service is LOS D, LOS E, or LOS F.
- ii. Project trips comprise 5 percent or more of segment volume.
- iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only (i) is met.

##### Freeways

a. Project-specific impact if all the following criteria are met:

- i. Freeway segment level of service is LOS E or LOS F.
- ii. Project comprises 5 percent or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) is met.

Map Source: Uniscoll, Law & Greenspan Engineers

<p>11</p> <p>Thompson Canyon Rd 41/100 22/120 8/1/20</p> <p>12</p> <p>Thompson Canyon Rd 36/120 31/120 3/1/20</p>	<p>3</p> <p>Thompson Canyon Rd 47/133 20/150 17/121</p> <p>4</p> <p>Thompson Canyon Rd 47/133 20/150 17/121</p>	<p>5</p> <p>Medical Center Dr 12/33 12/33 4/1/103</p> <p>6</p> <p>Thompson Canyon Rd 43/131 18/120 10/104</p>	<p>7</p> <p>Medical Center Dr 31/127 30/150 3/1/103</p> <p>8</p> <p>Thompson Canyon Rd 31/127 30/150 3/1/103</p>	<p>9</p> <p>Palomar St 31/122 31/122 20/114</p> <p>10</p> <p>Palomar St 31/122 31/122 20/114</p>	<p>13</p> <p>Brandyn Ave 3/12 3/12 14/110</p> <p>14</p> <p>Brandyn Ave 3/12 3/12 14/110</p>	<p>15</p> <p>Brandyn Ave 6/110 4/110 1/13</p> <p>16</p> <p>Brandyn Ave 6/110 4/110 1/13</p>
<p>17</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>18</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>19</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>20</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>21</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>22</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>23</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>24</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>25</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>26</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>27</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>28</p> <p>Brandyn Ave 11/2 11/2 6/14</p>	<p>29</p> <p>Brandyn Ave 11/2 11/2 6/14</p> <p>30</p> <p>Brandyn Ave 11/2 11/2 6/14</p>

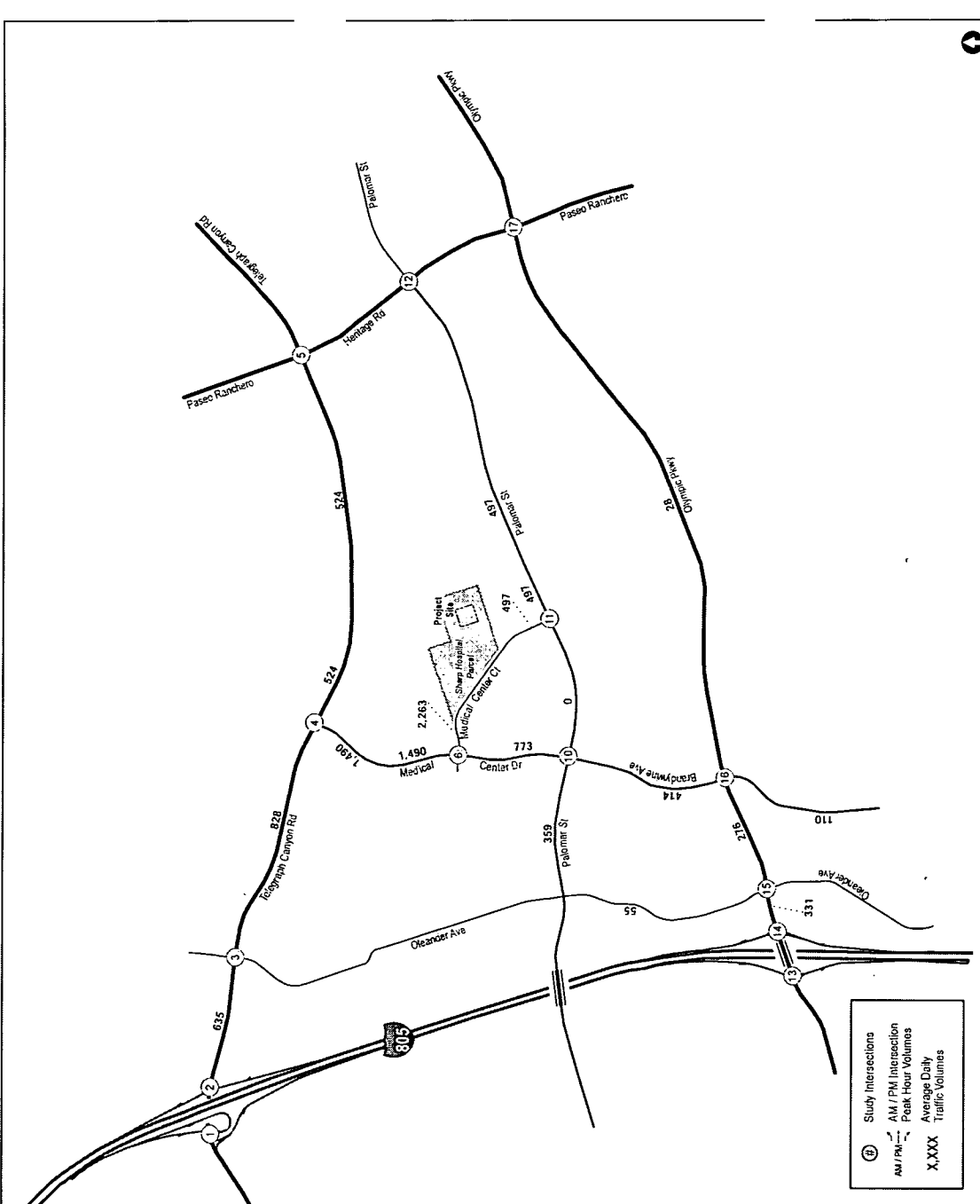


FIGURE 5.3-3  
Project Traffic Distribution

# **SANTEC / ITE GUIDELINES FOR TRAFFIC IMPACT STUDIES [TIS] IN THE SAN DIEGO REGION**

**MARCH 2, 2000 FINAL DRAFT**

## **PREFACE**

These guidelines are subject to continual update, as future technology and documentation become available. Always check with local jurisdictions for their preferred or applicable procedures.

**Committee Compilation by Kent A. Whitson**

**Reviewed by committee members: Hank Morris (co-chair),  
Tom Parry (co-chair), Arnold Torma (co-chair), Susan O'Rourke,  
Bill Darnell, Labib Qasem, John Boarman, Ralph Leyva, and Erik Ruehr**

**Additional review by: Ann French Gonsalves, Bill Figge,  
Bob Goralka, and Gary Halbert**

LOS objectives. For example, the Regional Growth Management Strategy for San Diego has a level-of-service objective of "D;" while the Congestion Management Program has established a minimum level-of-service of "E", or "F" if that is the existing 1990 base year LOS. In other words, if the existing LOS is "D" or worse, preservation of the existing LOS must be maintained or acceptable mitigation must be identified.

These guidelines do not establish a legal standard for these functions, but are intended to supplement any individual TIS manuals or level-of-service objectives for the various jurisdictions. These guidelines attempt to consolidate regional efforts to identify when a TIS is needed, what professional procedures should be followed, and what constitutes a significant traffic impact.

The instructions outlined in these guidelines are subject to update as future conditions and experience become available. Special situations may call for variation from these guidelines. Caltrans and lead agencies should agree on the specific methods used in traffic impact studies involving any State Route facilities, including metered and un-metered freeway ramps.

#### IV. NEED FOR A STUDY

A TIS should be prepared for all projects which generate traffic greater than 1,000 total average daily trips (ADT) or 100 peak-hour trips. If a proposed project is not in conformance with the land use and/or transportation element of the general or community plan, use threshold rates of 500 ADT or 50 peak-hour trips. Early consultation with any affected jurisdictions is strongly encouraged since a "focused" or "abbreviated" TIS may still be required – even if the above threshold rates are not met.

Currently, a Congestion Management Program (CMP) analysis is required for all large projects, which are defined as generating 2,400 or more average daily trips or 200 or more peak-hour trips. This size of study would usually include computerized long-range forecasts and select zone assignments. Please refer to the following flow chart (Figure 1) for TIS requirements.

**The geographic area examined in the TIS must include the following:**

- **All local roadway segments (including all State surface routes), intersections, and mainline freeway locations where the proposed project will add 50 or more peak-hour trips in either direction to the existing roadway traffic.**
- All freeway entrance and exit ramps where the proposed project will add a significant number of peak-hour trips to cause any traffic queues to exceed ramp storage capacities (see Figure 1). (NOTE: Care must be taken to include other ramps and intersections that may receive project traffic diverted as a result of already existing, or project causing congestion at freeway entrances and exits.)

ATTACHMENT B

CALTRANS' Traffic Impact Criteria



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**GUIDE FOR THE PREPARATION**

**OF**

**TRAFFIC IMPACT STUDIES**

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**STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**

**December 2002**



## **A. Trip Generation Thresholds**

The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS “C” or “D”).
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis<sup>4</sup>:
  - a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS “E” or “F”).
  - b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
  - c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).

Note: A traffic study may be as simple as providing a traffic count to as complex as a microscopic simulation. The appropriate level of study is determined by the particulars of a project, the prevailing highway conditions, and the forecasted traffic.

## **B. Exceptions**

Exceptions require consultation between the lead agency, Caltrans, and those preparing the TIS. When a project’s traffic impact to a State highway facility can clearly be anticipated without a study and all the parties involved (lead agency, developer, and the Caltrans district office) are able to negotiate appropriate mitigation, a TIS may not be necessary.

## **C. Updating An Existing Traffic Impact Study**

A TIS requires updating when the amount or character of traffic is significantly different from an earlier study. Generally a TIS requires updating every two years. A TIS may require updating sooner in rapidly developing areas and not as often in slower developing areas. In these cases, consultation with Caltrans is strongly recommended.

## **III. SCOPE OF TRAFFIC IMPACT STUDY**

Consultation between the lead agency, Caltrans, and those preparing the TIS is recommended before commencing work on the study to establish the appropriate scope. At a minimum, the TIS should include the following:

### **A. Boundaries of the Traffic Impact Study**

All State highway facilities impacted in accordance with the criteria in Section II should be studied. Traffic impacts to local streets and roads can impact intersections with State highway facilities. In these cases, the TIS should include an analysis of adjacent local facilities, upstream and downstream, of the intersection (i.e., driveways, intersections, and interchanges) with the State highway.

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<sup>4</sup> A “lesser analysis” may include obtaining traffic counts, preparing signal warrants, or a focused TIS, etc.

ATTACHMENT C

SANDAG, ITE, and Other Traffic Study Car Wash Trip Rates and Trip Generation

(NOT SO)  
**BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES  
 FOR THE SAN DIEGO REGION**



401 B Street, Suite 800  
 San Diego, California 92101  
 (619) 699-1900 • Fax (619) 699-1950

APRIL 2002

NOTE: This listing only represents a *guide* of average, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates (both local and national) are subject to change as future documentation becomes available, or as regional sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual. *Always check with local jurisdictions for their preferred or applicable rates.*

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY]*	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN-OUT ratio)		TRIP LENGTH (Miles) <sup>1</sup>
			Between 6:00-9:30 A.M.	Between 3:00-6:30 P.M.	
AGRICULTURE (Open Space) .....	[80:18:2]	2/acre**			10.8
AIRPORT .....	[78:20:2]				12.5
Commercial		60/acre, 100/flight, 70/1000 sq. ft.***	5% (6:4)	6% (5:5)	
General Aviation		6/acre, 2/flight, 6/based aircraft***	9% (7:3)	15% (5:5)	
Heliports		100/acre**			
AUTOMOBILE <sup>5</sup>					
Car Wash					
Automatic		900/site, 600/acre**	4% (5:5)	9% (5:5)	
Self-serve		100/wash stall**	4% (5:5)	8% (5:5)	
Gasoline .....	[21:51:28]				2.8
with/Food Mart		160/vehicle fueling space**	7% (5:5)	8% (5:5)	
with/Food Mart & Car Wash		155/vehicle fueling space**	8% (5:5)	9% (5:5)	
Older Service Station Design		150/vehicle fueling space, 900/station**	7% (5:5)	9% (5:5)	
Sales (Dealer & Repair)		50/1000 sq. ft., 300/acre, 60/service stall***	9% (7:3)	8% (4:6)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall**	8% (7:3)	11% (4:6)	
Auto Parts Sales		60/1000 sq. ft.***	4%	10%	
Quick Lube		40/service stall**	7% (6:4)	10% (5:5)	
Tire Store		25/1000 sq. ft., 30/service stall**	7% (6:4)	11% (5:5)	
CEMETERY		5/acre*			
CHURCH (or Synagogue) .....	[64:25:11]	9/1000 sq. ft., 30/acre** (quadruple rates for Sunday, or days of assembly)	9% (6:4)	8% (5:5)	5.1
COMMERCIAL/RETAIL <sup>3</sup>					
Super Regional Shopping Center (More than 80 acres, more than 800,000 sq. ft., w/usually 3+ major stores)		35/1000 sq. ft., <sup>c</sup> 400/acre*	4% (7:3)	10% (5:5)	
Regional Shopping Center .....	[54:35:11]	50/1000 sq. ft., <sup>c</sup> 500/acre*	4% (7:3)	9% (5:5)	5.2
(40-80 acres, 400,000-800,000 sq. ft., w/usually 2+ major stores)					
Community Shopping Center .....	[47:31:22]	80/1000 sq. ft., 700/acre***	4% (6:4)	10% (5:5)	3.6
(15-40 acres, 125,000-400,000 sq. ft., w/usually 1 major store, detached restaurant(s), grocery and drugstore)					
Neighborhood Shopping Center (Less than 15 acres, less than 125,000 sq. ft., w/usually grocery & drugstore, cleaners, beauty & barber shop, & fast food services)		120/1000 sq. ft., 1200/acre***	4% (6:4)	10% (5:5)	
Commercial Shops .....	[45:40:15]				4.3
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3% (6:4)	9% (5:5)	
Electronics Superstore		50/1000 sq. ft.**	3% (7:3)	10% (5:5)	
Factory Outlet		40/1000 sq. ft.**	4% (7:3)	9% (5:5)	
Supermarket		150/1000 sq. ft., 2000/acre***	4% (6:4)	10% (5:5)	
Drugstore		90/1000 sq. ft.**	4% (6:4)	10% (5:5)	
Convenience Market (15-16 hours)		500/1000 sq. ft.**	8% (5:5)	8% (5:5)	
Convenience Market (24 hours)		700/1000 sq. ft.**	9% (5:5)	7% (5:5)	
Convenience Market (w/gasoline pumps)		850/1000 sq. ft., 550/vehicle fueling space**	8% (5:5)	7% (5:5)	
Discount Club		60/1000 sq. ft., 600/acre***	1% (7:3)	9% (5:5)	
Discount Store		60/1000 sq. ft., 600/acre**	3% (6:4)	8% (5:5)	
Furniture Store		6/1000 sq. ft., 100/acre**	4% (7:3)	9% (5:5)	
Lumber Store		30/1000 sq. ft., 150/acre**	7% (6:4)	9% (5:5)	
Home Improvement Superstore		40/1000 sq. ft.**	9% (6:4)	8% (5:5)	
Hardware/Paint Store		60/1000 sq. ft., 600/acre**	2% (6:4)	9% (5:5)	
Garden Nursery		40/1000 sq. ft., 90/acre**	3% (6:4)	10% (5:5)	
Mixed Use: Commercial (w/supermarket)/Residential		110/1000 sq. ft., 2000/acre* (commercial only) 15/dwelling unit, 200/acre* (residential only)	3% (6:4) 9% (3:7)	9% (5:5) 13% (6:4)	
EDUCATION					
University (4 years) .....	[91:9:0]	2.4/student, 100 acre*	10% (8:2)	9% (3:7)	8.9
Junior College (2 years) .....	[92:7:1]	1.2/student, 24/1000 sq. ft., 120/acre***	12% (8:2)	9% (6:4)	9.0
High School .....	[75:19:16]	1.3/student, 15/1000 sq. ft., 60/acre***	20% (7:3)	10% (4:6)	4.8
Middle/Junior High .....	[63:25:12]	1.4/student, 12/1000 sq. ft., 50/acre***	30% (6:4)	9% (4:6)	5.0
Elementary .....	[57:25:10]	1.6/student, 14/1000 sq. ft., 90/acre***	32% (6:4)	9% (4:6)	3.4
Day Care .....	[28:58:14]	5/child, 80/1000 sq. ft.**	17% (5:5)	18% (5:5)	3.7
FINANCIAL <sup>5</sup> .....	[35:42:23]				3.4
Bank (Walk-In only)		150/1000 sq. ft., 1000/acre***	4% (7:3)	8% (4:6)	
with Drive-Through		200/1000 sq. ft., 1500/acre*	5% (6:4)	10% (5:5)	
Drive-Through only		250 (125 one-way)/lane*	3% (5:5)	13% (5:5)	
Savings & Loan		60/1000 sq. ft., 600/acre**	2%	9%	
Drive-Through only		100 (50 one-way)/lane**	4%	15%	
HOSPITAL .....	[73:25:2]				8.3
General		20/bed, 25/1000 sq. ft., 250/acre*	8% (7:3)	10% (4:6)	
Convalescent/Nursing		3/bed**	7% (6:4)	7% (4:6)	
INDUSTRIAL					
Industrial/Business Park (commercial included) .....	[79:19:2]	16/1000 sq. ft., 200/acre***	12% (8:2)	12% (2:8)	9.0
Industrial Park (no commercial)		8/1000 sq. ft., 90/acre**	11% (9:1)	12% (2:8)	
Industrial Plant (multiple shifts) .....	[92:5:3]	10/1000 sq. ft., 120/acre*	14% (8:2)	15% (3:7)	11.7
Manufacturing/Assembly		4/1000 sq. ft., 50/acre**	19% (9:1)	20% (2:8)	
Warehousing		5/1000 sq. ft., 60/acre**	13% (7:3)	15% (4:6)	
Storage		2/1000 sq. ft., 0.2/vault, 30/acre*	6% (5:5)	9% (5:5)	
Science Research & Development		8/1000 sq. ft., 80/acre*	16% (9:1)	14% (1:9)	
Landfill & Recycling Center		6/acre	11% (5:5)	10% (4:6)	

(OVER)

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista and County of San Diego.

ADVISORY/LIAISON MEMBERS: California Department of Transportation, County Water Authority, U.S. Department of Defense, S.D. Unified Port District and Tijuana/Baja California.

LAND USE	TRIP CATEGORIES (PRIMARY:DIVERTED:PASS-BY)*	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio)		TRIP LENGTH (Miles)†	
			Between 6:00-9:30 A.M.	Between 3:00-6:30 P.M.		
LIBRARY .....	[44:44:12]	50/1000 sq. ft., 400/acre**	2%	(7:3)	10% (5:5)	3.9
LODGING .....	[58:38:4]					7.6
Hotel (w/convention facilities/restaurant)		10/occupied room, 300/acre	8%	(6:4)	8% (6:4)	
Motel		9/occupied room, 200/acre*	9%	(4:6)	9% (6:4)	
Resort Hotel		8/occupied room, 100/acre*	9%	(6:4)	7% (4:6)	
Business Hotel		7/occupied room**	8%	(4:6)	9% (6:4)	
MILITARY .....	[82:16:2]	2.5/military & civilian personnel*	9%	(9:1)	10% (2:8)	11.2
OFFICE						
Standard Commercial Office .....	[77:19:4]	20/1000 sq. ft., 300/acre*	14%	(9:1)	13% (2:8)	8.8
(less than 100,000 sq. ft.)						
Large (High-Rise) Commercial Office .....	[82:15:3]	17/1000 sq. ft., 600/acre*	13%	(9:1)	14% (2:8)	10.0
(more than 100,000 sq. ft., 6+ stories)						
Office Park (400,000+ sq. ft.)		12/1000 sq. ft., 200/acre**	13%	(9:1)	13% (2:8)	
Single Tenant Office		14/1000 sq. ft., 180/acre*	15%	(9:1)	15% (2:8)	8.8
Corporate Headquarters		7/1000 sq. ft., 110/acre*	17%	(9:1)	16% (1:9)	
Government (Civic Center) .....	[50:34:16]	30/1000 sq. ft.**	9%	(9:1)	12% (3:7)	6.0
Post Office						
Central/Walk-In Only		90/1000 sq. ft.**	5%		7%	
Community (not including mail drop lane)		200/1000 sq. ft., 1300/acre*	8%	(6:4)	9% (5:5)	
Community (w/mail drop lane)		300/1000 sq. ft., 2000/acre*	7%	(5:5)	10% (5:5)	
Mail Drop Lane only		1500 (750 one-way)/lane*	7%	(5:5)	12% (5:5)	
Department of Motor Vehicles		180/1000 sq. ft., 900/acre**	8%	(6:4)	10% (4:6)	
Medical-Dental .....	[60:30:10]	50/1000 sq. ft., 500/acre*	8%	(8:2)	11% (3:7)	6.4
PARKS .....	[66:28:6]					5.4
City (developed w/meeting rooms and sports facilities)		50/acre*	4%		8%	
Regional (developed)		20/acre*	13%	(5:5)	9% (5:5)	
Neighborhood/County (undeveloped)		5/acre (add for specific sport uses), 6/picnic site**				
State (average 1000 acres)		1/acre, 10/picnic site**				
Amusement (Theme)		80/acre, 130/acre (summer only)**			8% (6:4)	
San Diego Zoo		115/acre*				
Sea World		80/acre*				
RECREATION						
Beach, Ocean or Bay .....	[52:39:9]	600/1000 ft. shoreline, 60/acre*				6.3
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre*				
Bowling Center		30/1000 sq. ft., 300/acre, 30/lane**	7%	(7:3)	11% (4:6)	
Campground		4/campsite**	4%		8%	
Golf Course		7/acre, 40/tee, 700/course**	7%	(8:2)	9% (3:7)	
Driving Range only		70/acre, 14/tee box*	3%	(7:3)	9% (5:5)	
Marinas		4/berth, 20/acre**	3%	(3:7)	7% (6:4)	
Multi-purpose (miniature golf, video arcade, batting cage, etc.)		90/acre	2%		8%	
Racquetball/Health Club		30/1000 sq. ft., 300/acre, 40/court*	4%	(6:4)	9% (6:4)	
Tennis Courts		16/acre, 30/court**	5%		11% (5:5)	
Sports Facilities						
Outdoor Stadium		50/acre, 0.2/seat*				
Indoor Arena		30/acre, 0.1/seat*				
Racetrack		40/acre, 0.6 seat*				
Theaters (multiplex w/matinee) .....	[66:17:17]	80/1000 sq. ft., 1.8/seat, 360/screen*	12%		8% (6:4)	6.1
RESIDENTIAL .....	[86:11:3]					7.9
Estate, Urban or Rural		12/dwelling unit**	8%	(3:7)	10% (7:3)	
(average 1-2 DU/acre)						
Single Family Detached		10/dwelling unit**	8%	(3:7)	10% (7:3)	
(average 3-6 DU/acre)						
Condominium		8/dwelling unit**	8%	(2:8)	10% (7:3)	
(or any multi-family 6-20 DU/acre)						
Apartment		6/dwelling unit**	8%	(2:8)	9% (7:3)	
(or any multi-family units more than 20 DU/acre)						
Military Housing (off-base, multi-family)						
(less than 6 DU/acre)		8/dwelling unit	7%	(3:7)	9% (6:4)	
(6-20 DU/acre)		6/dwelling unit	7%	(3:7)	9% (6:4)	
Mobile Home						
Family		5/dwelling unit, 40/acre*	8%	(3:7)	11% (6:4)	
Adults Only		3/dwelling unit, 20/acre*	9%	(3:7)	10% (6:4)	
Retirement Community		4/dwelling unit**	9%	(4:6)	7% (6:4)	
Congregate Care Facility		2.5/dwelling unit**	4%	(6:4)	8% (5:5)	
RESTAURANT <sup>3</sup> .....	[51:37:12]					4.7
Quality		100/1000 sq. ft., 3/seat, 500/acre**	1%	(6:4)	8% (7:3)	
Sit-down, high turnover		160/1000 sq. ft., 5/seat, 1000/acre**	8%	(5:5)	8% (6:4)	
Fast Food (w/drive-through)		650/1000 sq. ft., 20/seat, 3000/acre**	7%	(5:5)	7% (5:5)	
Fast Food (without drive-through)		700/1000 sq. ft.**	5%	(6:4)	7% (5:5)	
Delicatessen (7am-4pm)		150/1000 sq. ft., 11/seat*	9%	(6:4)	3% (3:7)	
TRANSPORTATION						
Bus Depot		25/1000 sq. ft.**				
Truck Terminal		10/1000 sq. ft., 7/bay, 80/acre**	9%	(4:6)	8% (5:5)	
Waterport/Marine Terminal		170/berth, 12/acre**				
Transit Station (Light Rail w/parking)		300/acre, 2 <sup>1/2</sup> /parking space (4/occupied)**	14%	(7:3)	15% (3:7)	
Park & Ride Lots		400/acre (600/paved acre), 5/parking space (8/occupied)**	14%	(7:3)	15% (3:7)	

\* Primary source: San Diego Traffic Generators.

\*\* Other sources: ITE Trip Generation Report (6th Edition), Trip Generation Rates (other agencies and publications), various SANDAG & CALTRANS studies, reports and estimates.

† Trip category percentage ratios are daily from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (draft SANDAG Analysis of Trip Diversion, revised November, 1990):

PRIMARY - one trip directly between origin and primary destination.  
DIVERTED - linked trip (having one or more stops along the way to a primary destination) whose distance compared to direct distance ≥ 1 mile.  
PASS-BY - undiverted or diverted < 1 mile.

‡ Trip lengths are average weighted for all trips to and from general land use site. (All trips system-wide average length = 6.9 miles)

§ Fitted curve equation:  $\ln(t) = 0.502 \ln(d) + 6.945$  } t = total trips, x = 1,000 sq. ft.

¶ Fitted curve equation:  $\ln(t) = 0.756 \ln(d) + 3.950$  }

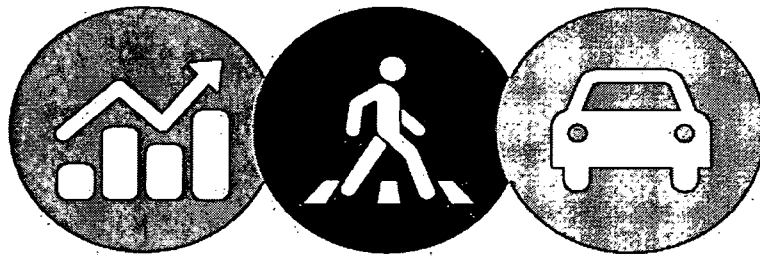
‡ Fitted curve equation:  $t = -2.169 \ln(d) + 12.85$  } t = trips/DU, d = density (DU/acre), DU = dwelling unit

§ Suggested PASS-BY (undiverted or diverted < 1 mile) percentages for trip rate reductions only during P.M. peak period (based on combination of local data/review and other sources\*\*):

COMMERCIAL/RETAIL	PERCENTAGE
Regional Shopping Center	20%
Community	30%
Neighborhood	40%
Specialty Retail/Strip Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%
FINANCIAL	
Bank	25%
AUTOMOBILE	
Gasoline Station	50%
RESTAURANT	
Quality	10%
Sit-down high turnover	20%
Fast Food	40%

† Trip Reductions - In order to help promote regional "smart growth" policies, and acknowledge San Diego's expanding mass transit system, consider vehicle trip rate reductions (with proper documentation and necessary adjustments for peak periods). The following are some examples:

- [1] A 5% daily trip reduction for land uses with transit access or near transit stations accessible within 1/4 mile.
- [2] Up to 10% daily trip reduction for mixed-use developments where residential and commercial retail are combined (demonstrate mode split of walking trips to replace vehicular trips).



# Trip Generation Manual

10<sup>th</sup> Edition • Volume 2: Data

**Port and Terminal (Land Uses 000–099)**



SEPTEMBER 2017  
INSTITUTE OF TRANSPORTATION ENGINEERS

## Automated Car Wash (948)

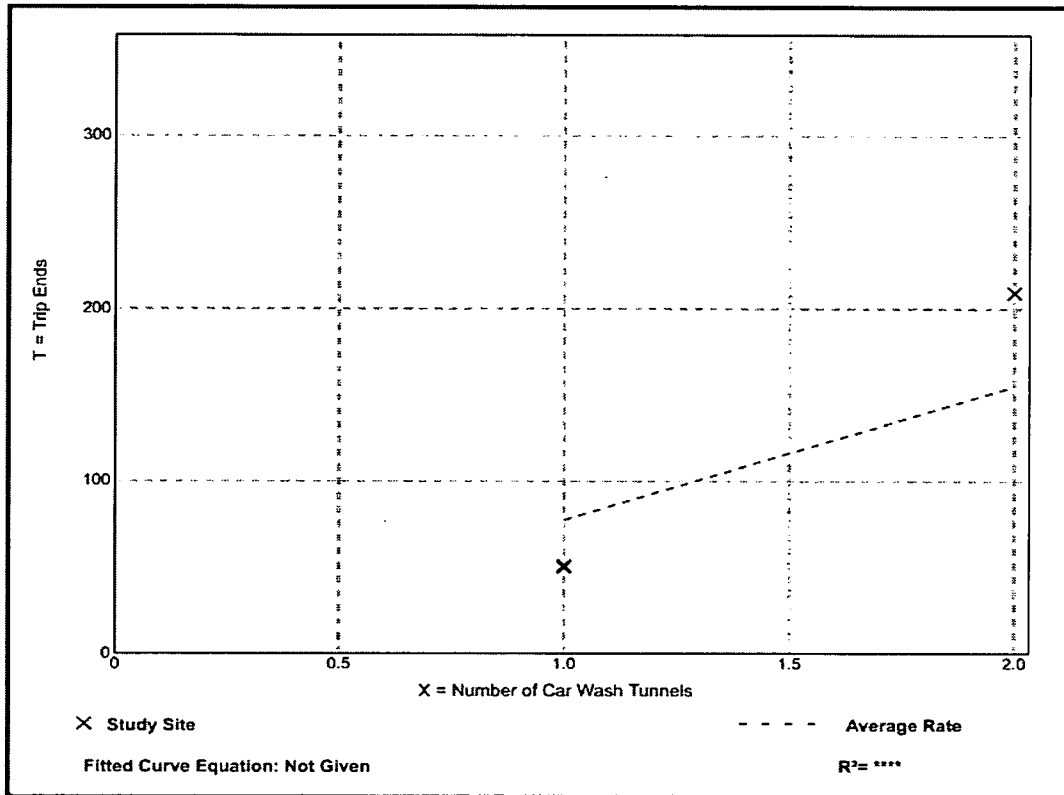
**Vehicle Trip Ends vs: Car Wash Tunnels**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 3  
 Avg. Num. of Car Wash Tunnels: 1  
 Directional Distribution: 50% entering, 50% exiting

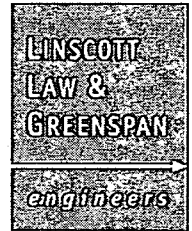
### Vehicle Trip Generation per Car Wash Tunnel

Average Rate	Range of Rates	Standard Deviation
77.50	50.00 - 104.50	33.07

### Data Plot and Equation

*Caution – Small Sample Size*





April 28, 2016

Mr. Richard Finkel, AIA  
Anaheim Express Wash, LLC  
924-926 Beach Boulevard  
Anaheim, CA 92610

LLG Reference: 2.16.3693.1

**Subject: Traffic Impact Assessment for the Proposed  
Anaheim Express Wash Project  
Anaheim, California**

Dear Mr. Finkel:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Traffic Impact Assessment for the proposed Anaheim Express Wash project (Herein referred to as "Project") located in the City of Anaheim. The proposed Project consists of constructing a self-serve automated car wash facility with a single 140-foot wash tunnel and three pay station lanes on a developed site located on the northeast quadrant of Beach Boulevard (SR-39) and Ball Road. *Figure 1* presents a Vicinity Map, which illustrates the general location of the project site and depicts the surrounding street system. The Project site is currently occupied by a 28-room motel, 2,042 square feet (SF) of retail uses, and a 2,000 SF high-turnover sit-down restaurant.

*Figure 2* presents the existing aerial site plan for the site and *Figure 3* presents the site plan for the proposed Anaheim Express Wash project, prepared by Bundy-Finkel Architects, which shows the proposed carwash layout and existing adjacent gasoline station with convenience store. Site access for the proposed Project will consist of two (2) right-in/right-out driveways along Ball Road and one (1) right-in/right-out driveway along Beach Boulevard. This letter report will outline the net traffic generation forecast analysis between the existing development and the proposed express car wash and assess the potential Project traffic impact.

### Project Traffic Generation Forecast Comparison Analysis

Traffic generation is expressed in vehicle trip ends, defined as a one-way vehicular movement, either entering or exiting the generating land use. The traffic generation rates used in the traffic forecasting procedure for the existing development (ITE Land Uses - 320: Motel, 820: Retail, and 932: High-Turnover Sit-Down Restaurant) are found in *Trip Generation, Ninth Edition*, published by the Institute of Transportation

Engineers & Planners  
Traffic  
Transportation  
Parking

Linscott, Law &  
Greenspan, Engineers

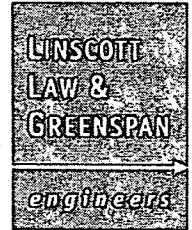
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Keith D. Maberry, PE

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Engineers (ITE) [Washington, D.C., 2012]. The trip generation potential of the proposed carwash project was forecast by employing derived site specific trip generation rates for the Anaheim Express Wash rather than using trip rates provided in *ITE Trip Generation Manual* rates for "self-service car wash or automated car wash". The site specific trip generation rates were developed based on trip generation studies of an existing Victorville Speedwash facility located in the City of Victorville. The resource typically used by traffic engineers to forecast trip generation for development projects is the ITE Trip Generation manual. However, in this instance, the ITE manual does not provide trip rates for a land use such as the proposed Anaheim Express Wash facility.

Consequently, the net traffic forecast for the proposed Project was calculated by first summarizing the existing traffic generation for the existing development uses and next by applying the empirical *express wash* traffic generation factors to the proposed self-serve automated car wash with 140-foot wash tunnel.

*Table 1* summarizes the trip generation for the Existing Land Use and the proposed Project. As shown in the middle portion of *Table 1*, the trip generation for the existing motel, retail, and restaurant uses, after adjustment for pass-by trips, totals 465 daily trips, with 15 trips (5 inbound, 10 outbound) during the AM peak hour and 37 trips (21 inbound, 16 outbound) during the PM peak hour.

A review of the lower portion of *Table 1* shows the trip generation forecast for the Project. As shown, the proposed Project, after adjustment for pass-by trips, is forecast to generate a total of 910 daily trips, with 50 trips (29 inbound, 21 outbound) during the AM peak hour, and 96 trips (47 inbound, 49 outbound) during the PM peak hour.

A comparison of the trips generated by the proposed Project to the trips generated by the Existing Land Use shows that the proposed Project will result in 445 net daily trips, with 35 net trips (24 inbound, 11 outbound) during the AM peak hour and 59 net trips (26 inbound, 33 outbound) during the PM peak hour.

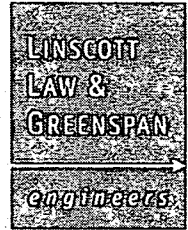
Per Caltrans guidelines, the following is stated in the *Caltrans Guide for the Preparation of Traffic Impact Studies, December 2002*:

*"The following criterion is a starting point in determining when a TIS is needed. When a project:*

- 1. Generates over 100 peak hour trips assigned to a State highway facility.....*
- 2. Generates 50 to 100 peak hour trips assigned to a State highway facility and noticeable delay approaching LOS C or D.....*



Mr. Richard Finkel, AIA  
April 28, 2016  
Page 3

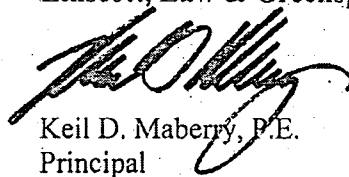


3. *Generates 1 to 49 peak hour trips assigned to a State highway facility and noticeable delay approaching LOS E or F....."*

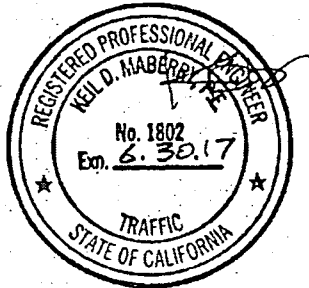
Based on the Caltrans criteria above and given that the existing level of service (LOS) at the intersection of Beach Boulevard (State facility) and Ball Road is LOS D (*Appendix A*, attached, contains the existing AM and PM peak hour traffic count data and LOS calculations using Synchro 9.0 traffic analysis software), it is determined that no additional analysis is needed for the Caltrans Facilities. While the net PM peak hour traffic generation for the proposed Project is 57 trips, fewer than 50 PM peak hour trips will travel through the Caltrans intersection since inbound right turn Project traffic on Ball Road and outbound right turn Project traffic on Beach Boulevard will not travel through the Beach Boulevard/Ball Road intersection. Therefore, the proposed Anaheim Express Wash Project will not significantly impact the surrounding transportation system and no additional traffic analysis is needed.

We appreciate the opportunity to provide this traffic impact assessment letter. Should you have any questions, please call me at (949) 825-6175.

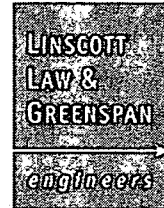
Very truly yours,  
Linscott, Law & Greenspan, Engineers



Keil D. Maberry, P.E.  
Principal



Attachments



**TABLE 1**  
**TRIP GENERATION FORECAST COMPARISON**  
**ANAHEIM EXPRESS WASH, ANAHEIM**

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
<i><u>Trip Generation Rates</u></i>							
ITE 320: Motel (TE/Room)	5.63	0.16	0.29	0.45	0.25	0.22	0.47
ITE 820: Shopping Center (TE/KSF)	42.70	0.60	0.36	0.96	1.78	1.93	3.71
ITE 932: High-Turnover (Sit-Down) Restaurant (TE/KSF)	127.15	5.95	4.86	10.81	5.91	3.94	9.85
Empirical Trip Generation Estimates for Speedwash (TE/LFWT) [1]	8.663	0.275	0.204	0.479	0.450	0.463	0.913
<i><u>Trip Generation Forecast</u></i>							
<i>Existing Site [2]:</i>							
Retail (2,042 SF)	87	1	1	2	4	4	8
Pass-By [4]	<u>-9</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-1</u>	<u>-1</u>	<u>-2</u>
<i>Retail Subtotal</i>	78	1	1	2	3	3	6
Restaurant (2,000 SF)	254	0	0	0	12	8	20
Pass-By [5]	<u>-25</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-1</u>	<u>-1</u>	<u>-2</u>
<i>Restaurant Subtotal</i>	229	0	0	0	11	7	18
Motel (28 Rooms)	<u>158</u>	<u>4</u>	<u>2</u>	<u>13</u>	<u>7</u>	<u>6</u>	<u>13</u>
<i>Existing Site Total (A)</i>	465	5	10	15	21	16	37
<i>Proposed Project [3]:</i>							
Express Wash (140 feet of tunnel)	1,213	39	28	67	63	65	128
Pass-by [6]	<u>-303</u>	<u>-10</u>	<u>-7</u>	<u>-17</u>	<u>-16</u>	<u>-16</u>	<u>-32</u>
<i>Express Wash Total (B)</i>	910	29	21	50	47	49	96
<b>Net Project Trip Generation (B) - (A)</b>	<b>445</b>	<b>24</b>	<b>11</b>	<b>35</b>	<b>26</b>	<b>33</b>	<b>59</b>

**Notes:**

- [1] Based on driveway traffic counts conducted on Friday (2/7/2014) at Victorville Speedwash (12147 Industrial Boulevard, Victorville).
- [2] Source: Trip Generation, 9th Edition, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2012)].
- [3] Based on Empirical Trip Generation rates from Victorville Speedwash
- [4] Pass-by reductions for existing retail: 10% daily weekday, 25% AM weekday, 25% PM weekday.
- [5] Pass-by reductions for existing restaurant: 10% daily weekday, 10% PM weekday.
- [6] Pass-by reductions for proposed speedwash project: 25% daily weekday, 25% AM weekday, 25% PM weekday.

TABLE 5-1  
PROJECT TRAFFIC GENERATION RATES

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour			Saturday Midday		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
		Victorville Speedwash <sup>3</sup>	66	49	115	108	111	219	159	160
<i>Existing Capital Drive</i>										
<u>Trip Generation Rate</u>	2,079									
Empirical Trip Generation Estimates for Speedwash (TE / L/FWT) <sup>4</sup>	8,663	0.275	0.204	0.479	0.45	0.463	0.913	0.663	0.667	1,329
Adjusted Trip Generation Estimates for Speedwash (TE / L/FWT) <sup>5</sup>	11,868	0.377	0.279	0.656	0.617	0.634	1.251	0.676	0.680	1,356
ITE 820: Shopping Center (TE/KSF)	42.7	0.6	0.36	0.96	1.78	1.93	3.71	2.51	2.31	4.82
ITE 932: High Turnover Restaurant (TE/KSF)	127.15	5.95	4.86	10.81	5.91	3.94	9.85	7.46	6.61	14.07

Notes:  
TE/L/FWT = Trip ends per linear feet of wash tunnel, TE/KSF = Trip ends per 1,000 Square-feet

<sup>3</sup> Counts took place Friday and Saturday (2/7/2014 and 2/8/2014) at Victorville Speedwash which is located at 12147 Industrial Boulevard.

<sup>4</sup> Victorville Speedwash consists of two wash tunnels which are each 120 feet in length.

<sup>5</sup> The trip rates have been increased by 37% and 2% for the weekday and weekend day, respectively. These increases are based on a 35% increase during the weekday to account for a more "typical" day based on sales information. In addition, a factor of 2% has been applied to both weekday and weekend to account for an increase in traffic due to the provision of detail services proposed as part of the South Coast Speedwash project.



KUNZMAN ASSOCIATES, INC.

**MATT'S EXPRESS CAR WASH  
TRAFFIC IMPACT ANALYSIS (REVISED)**

**April 22, 2014**

Prepared by:

Robert Kunzman  
Carl Ballard, LEED GA  
William Kunzman, P.E.

*William Kunzman*



1111 Town & Country Road, Suite 34  
Orange, California 92868  
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[www.traffic-engineer.com](http://www.traffic-engineer.com)

### III. Project Traffic

---

#### A. Project Description

The approximately 1.06 acre project site is proposed to be developed with an automated car wash facility including 8,974 square feet of building area. The project will have access to Tennessee Street.

#### B. Trip Generation

The trips generated by the project are determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and life styles remain similar to what are known today. A major change in these variables may affect trip generation rates.

The trip generation rates for a carwash have been documented by the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012 in Land Use Codes 947 and 948. Land Use Code 947 is based on the number of car washing stalls and Land Use Code 948 is based on the square footage of the car wash or the number of wash stalls.

Land Use Code 947 is projected to generate approximately (not reported) daily vehicle trips, (not reported) of which will occur during the morning peak hour and 6 of which will occur during the evening peak hour.

Land Use Code 948 is projected to generate approximately (not reported) daily vehicle trips, (not reported) of which will occur during the morning peak hour and 119 or 78 of which will occur during the evening peak hour.

It should be noted that the Institute of Transportation Engineers does not provide a Land Use Code that exactly represents the proposed project and if they did they do not provide the required data to conduct this traffic impact analysis.

The trip generation rates for a carwash have been documented by the San Diego Association of Governments, NOT SO BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES FOR THE SAN DIEGO REGION, April 2002. The Automatic Carwash Land Use is based on a carwash facility as a whole.

An Automatic Carwash site is projected to generate approximately 900 daily vehicle trips, 36 of which will occur during the morning peak hour and 82 of which will occur during the evening peak hour.

This trip generation for the site was originally proposed for this analysis but the City of Redlands suggested that the applicants existing facility in the City of Rialto be surveyed to determine the exact trip generation of a nearly identical site.

Trip generation rates were determined for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land use. By multiplying the trip generation rates by the land use quantity, the traffic volumes are determined. Table 2 shows the project trip generation, which is based upon a manual vehicular count of the existing Matt's Express Car Wash facility located in the City of Rialto on January 16, 2014.

As shown in Table 2, the proposed development is projected to generate approximately 944 daily vehicle trips, 58 of which will occur during the morning peak hour and 134 of which will occur during the evening peak hour.

As a double check of this data, one week of data from January 2014, February 2014, March 2014, and April 2014 were provided to us by the applicant. This data has been processed to determine the daily, morning peak hour, and evening peak hour traffic volumes.

The minimum average day during a week site generation was 742 daily vehicle trips, 32 of which occurred during the morning peak hour and 50 of which occurred during the evening peak hour.

The average average day during a week site generation was 832 daily vehicle trips, 44 of which occurred during the morning peak hour and 86 of which occurred during the evening peak hour.

The maximum average day during a week site generation was 958 daily vehicle trips, 50 of which occurred during the morning peak hour and 104 of which occurred during the evening peak hour.

It should be noted that the proposed Redlands facility is going to be at a different price point than the Rialto facility. The price of a carwash at the proposed Redlands facility is a 225 percent increase of the price of a carwash at the Rialto facility. The Redlands facility is projected to have less vehicle trips.

The trip generation used in this analysis is a conservative representation of the trips that are likely to be seen at the proposed project site.

**C. Trip Distribution**

Figures 9 and 10 contain the directional distributions of the project traffic for the proposed land use.

To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

**Table 2**

**Project Trip Generation<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Automatic Carwash		Site	29.00	29.00	58.00	67.00	67.00	134.00	944.00
<u>Trips Generated</u>									
Automatic Carwash	1	Site	29	29	58	67	67	134	944

<sup>1</sup> Source: Manual vehicle count of the existing Matt's Express Carwash facility located in the City of Rialto on January 16, 2014.

ATTACHMENT D

Halecrest Drive Data



Driveway Spillback Count

Location: City of Chula Vista  
 N/S Street: Halecrest Drive  
 E/W Street: Don's Auto Service Driveway

Date: 9/11/2018  
 Weather: Sunny

	Blockage Begins	Blockage Ends	Time Blocked	Spillback behind Driveway
1	16:00:35	16:01:38	0:01:03	1
2	16:10:27	16:11:30	0:01:03	2
3	16:13:08	16:13:55	0:00:47	0
4	16:15:09	16:15:40	0:00:31	0
5	16:18:49	16:20:00	0:01:11	4
6	16:25:55	16:26:10	0:00:15	0
7	16:27:32	16:27:52	0:00:20	1
8	16:29:23	16:29:57	0:00:34	1
9	16:31:51	16:32:19	0:00:28	0
10	16:33:25	16:34:18	0:00:53	2
11	16:35:46	16:36:26	0:00:40	1
12	16:38:16	16:38:29	0:00:13	0
13	16:42:21	16:43:03	0:00:42	1
14	16:46:48	16:47:10	0:00:22	0
15	16:50:30	16:51:17	0:00:47	0
16	16:52:54	16:53:27	0:00:33	1
17	16:55:09	16:55:38	0:00:29	0
18	16:56:49	16:57:04	0:00:15	0
19	17:04:58	17:06:09	0:01:11	6
20	17:09:29	17:10:21	0:00:52	5
21	17:11:20	17:12:12	0:00:52	0
22	17:15:26	17:16:08	0:00:42	1
23	17:19:29	17:20:23	0:00:54	1
24	17:22:18	17:23:01	0:00:43	1
25	17:24:28	17:24:47	0:00:19	2
26	17:28:07	17:28:35	0:00:28	0
27	17:29:18	17:30:16	0:00:58	2
28	17:31:50	17:32:28	0:00:38	2
29	17:34:11	17:34:20	0:00:09	0
30	17:36:52	17:37:12	0:00:20	0
31	17:38:36	17:38:54	0:00:18	1
32	17:40:27	17:41:22	0:00:55	2
33	17:43:18	17:43:32	0:00:14	0
34	17:44:56	17:45:31	0:00:35	1
35	17:47:02	17:47:42	0:00:40	1
36	17:49:06	17:49:29	0:00:23	0
37	17:52:43	17:53:37	0:00:54	4
38				
39		4:45-5:45 PM TOTAL	0:11:59	
40		4:00-6:00 PM TOTAL	0:23:11	

ATTACHMENT E

CEQA Traffic Criteria

improvement; and identify the financing method or methods for each facility and improvement.

The traffic section of the GMO sets the requirements used to assess short-term traffic impacts for projects implemented in conformance to the General Plan. Specifically, Section 19.09.040 of the City of Chula Vista Municipal Code states that citywide traffic is expected to maintain LOS C or better as measured by observed average travel speed on all signalized arterial segments; except that during peak hours, a level of service (LOS) D can occur for no more than two hours of the day.

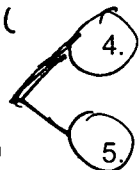
The Chula Vista Traffic Monitoring Program (TMP) is used to assess the operating performance of the City's arterial street system in order to determine compliance with the Threshold Standards of the GMP. Recent GMOC traffic studies have indicated that the northbound Heritage Road segment between Olympic Parkway and Telegraph Canyon Road is not in compliance with these standards (City of Chula Vista 2015). Section 5.3.2 identifies the specific Threshold Standards of the GMO for traffic.

### 5.3.2 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to transportation and circulation would be significant if the project would:

1. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
4. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.
6. Conflict with adopted policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

high  
visibility  
possibility



ATTACHMENT F

EIR Documenting LOS E Conditions

INTERSECTIONS

Under the near-term conditions, seven intersections (Intersections 2, and 12 to 17) would operate at unacceptable LOS E or F (Table 5.3-10). With the addition of project traffic to the near-term conditions, these same seven intersections would operate unacceptably and no additional intersections would operate unacceptably. As the project traffic would not comprise 5 percent or more of the volumes entering these intersections operating at LOS E or LOS F, the project would have a less than significant direct impact to these intersections under the near-term + project conditions. As identified below, the project impact to these seven intersections would be cumulatively significant under the near-term + project conditions:

- Telegraph Canyon Road/I-805 NB Ramps (LOS E in PM)
- E. Palomar Street/Heritage Road (LOS F in AM)
- Olympic Parkway/I-805 SB Ramps (LOS E in AM and LOS F in PM)
- Olympic Parkway/I-805 NB Ramps (LOS F in AM)
- Olympic Parkway/Oleander Avenue (LOS E in AM)
- Olympic Parkway/Brandywine Avenue (LOS E in PM)
- Olympic Parkway/Heritage Road (LOS E in PM)

*cumulative LOS F will affect*

**TABLE 5.3-10  
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	(Near-Term)		Near-Term + Project		Project % of Entering Volume (>5%)	Impact Type <sup>e</sup>
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay <sup>a</sup>	LOS <sup>b</sup>		
1. Telegraph Canyon Road/I- 805 SB Ramps	Signal	AM	12.0	B	12.0	B	1%	None
		PM	37.3	D	37.8	D	1%	
2. Telegraph Canyon Road/I-805 NB Ramps	Signal	AM	46.6	D	47.1	D	1%	Cuml
		PM	63.1	E	65.7	E	1%	
3. Telegraph Canyon Road/Oleander Avenue	Signal	AM	25.3	C	25.6	C	1%	None
		PM	26.2	C	26.6	C	1%	
4. Telegraph Canyon Road/Medical Center Drive	Signal	AM	28.0	C	29.7	C	2%	None
		PM	34.4	C	38.3	D	3%	
5. Telegraph Canyon Road/Heritage Road	Signal	AM	54.1	D	54.8	D	0%	None
		PM	45.9	D	46.2	D	1%	
6. Medical Center Court/Medical Center Drive	Signal	AM	21.8	C	30.9	C	11%	None
		PM	25.2	C	43.0	D	11%	
7. Medical Center Court/Loop Road Access West	OWSC <sup>c</sup>	AM	14.5	B	15.9	C	17%	None
		PM	16.7	C	33.7	D	21%	
8. Medical Center Court/Loop Road Access East	OWSC	AM	13.8	B	20.3	C	15%	None
		PM	15.9	C	21.4	C	18%	
9. Medical Center Court/Main Hospital Driveway	OWSC	AM	15.3	C	21.9	C	18%	None
		PM	11.4	B	13.5	B	22%	

*how can they say this in report study*

ATTACHMENT G

Senior Apartments Traffic Analysis



11622 El Camino Real, Suite 100, San Diego, CA 92130  
Phone 619-890-1253, Fax 619-374-7247, Email: justin@losengineering.com

August 20, 2018

Mr. Stan Donn  
Development Services Department  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 91910

Subject: Traffic and Parking Analysis for 58 Senior Apartments at 178 Third Avenue

Dear Mr. Donn:

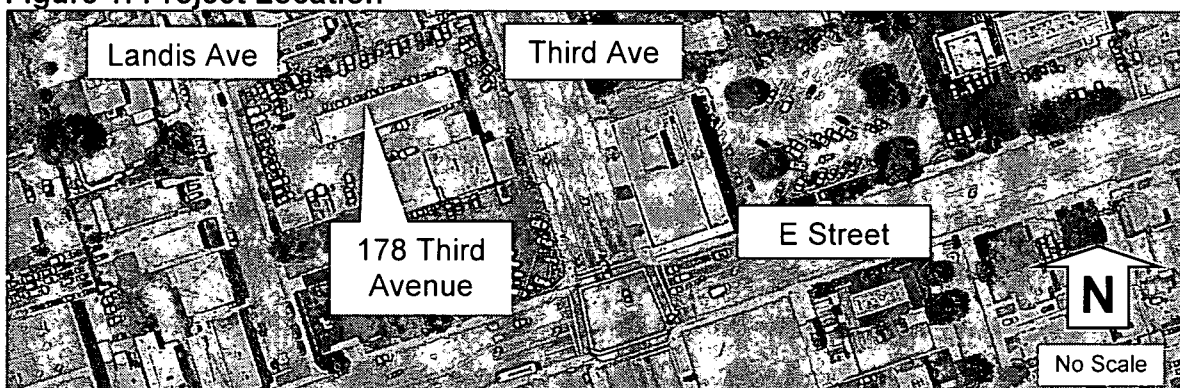
LOS Engineering, Inc. is pleased to present this traffic and parking analysis of a proposed senior apartment project to be located at 178 Third Avenue in the City of Chula Vista, California. This letter documents the following:

- 1) Project driveway Level of Service (LOS) on Landis Ave and Third Ave, and
- 2) Parking supply and demand on Landis Ave and Third Ave between D and E Street.

#### PROJECT LOCATION AND DESCRIPTION

The site at 178 Third Avenue is an existing automotive repair facility with a single driveway on Third Avenue. The project with 58 senior apartments (age 62+) is proposed with one driveway on Landis Avenue and a second driveway on Third Avenue. The project location is shown in **Figure 1** while **Attachment A** includes plans of the existing site and the proposed site.

**Figure 1: Project Location**



Source: USGS

**PROJECT DRIVEWAY LEVEL OF SERVICE**

The project driveways were analyzed based on the operational analysis outlined in the 2010 Highway Capacity Manual (HCM). This process defines LOS in terms of average control delay per vehicle, which is measured in seconds. LOS at the intersections were calculated using the computer software program Synchro 10.0 (Trafficware Corporation). The HCM LOS for the range of delay by seconds for un-signalized intersections is described in **Table 1**.

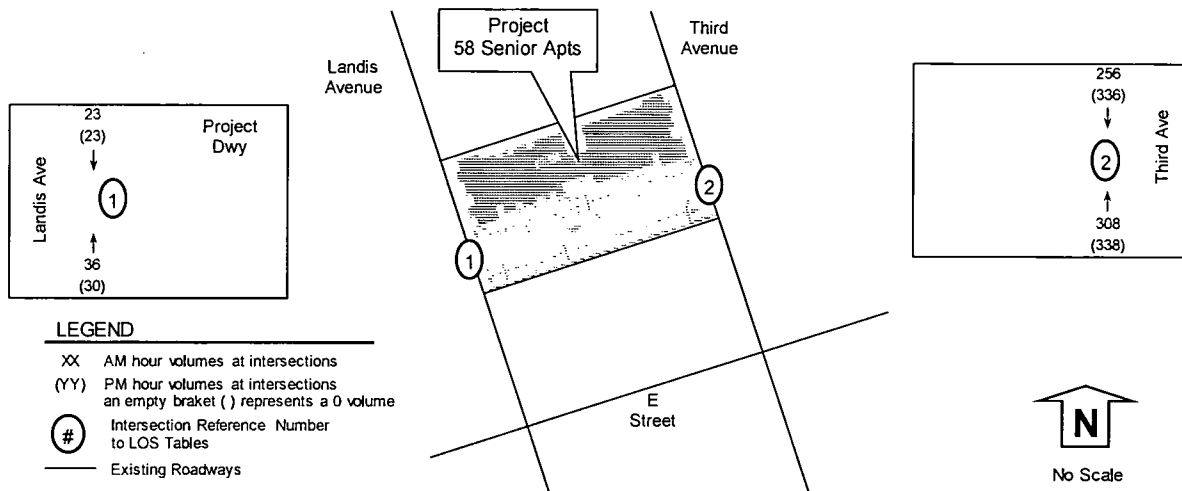
**TABLE 1: INTERSECTION LEVEL OF SERVICE DEFINITIONS (HCM 2010)**

Level of Service	Un-Signalized (TWSC and AWSC) Control Delay (seconds/vehicle)
A	0-10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

TWSC: Two Way Stop Control. AWSC: All Way Stop Control. Source: Highway Capacity Manual 2010 (exhibit 19-1 for two way stop control, and exhibit 20-2 for all way stop control).

Existing background traffic was collected on Landis Avenue and 3<sup>rd</sup> Avenue on Wednesday, May 10, 2017 (data included in **Attachment B**). The traffic volumes are shown in **Figure 2**.

**Figure 2: Existing Traffic**



The project traffic generation was calculated using SANDAG trip rates from the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. A trip credit was not applied for the existing automotive business in order to clearly show the total project traffic at the driveways. The project is calculated to generate 232 ADT with 12 AM peak hour trips (5 inbound and 7 outbound) and 16 PM peak hour trips (10 inbound and 6 outbound) as shown in **Table 2**.



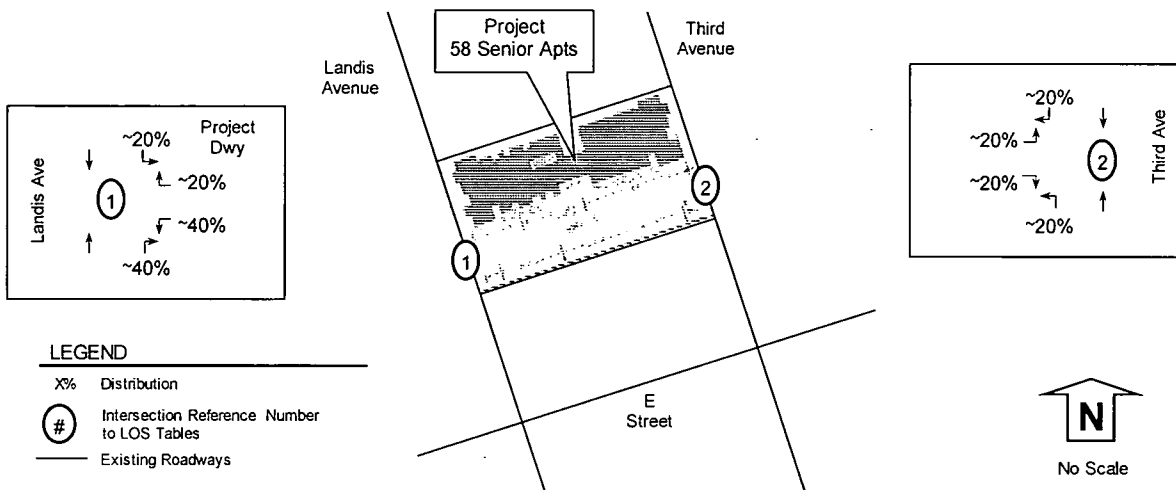
**TABLE 2: PROJECT TRIP GENERATION**

Proposed Land Use	Rate	Size & Units	ADT	%	Split	AM			PM		
						IN	OUT	%	Split	IN	OUT
Retirement Community	4 /DU	58 DU	232	5%	0.4 0.6	5	7	7%	0.6 0.4	10	6

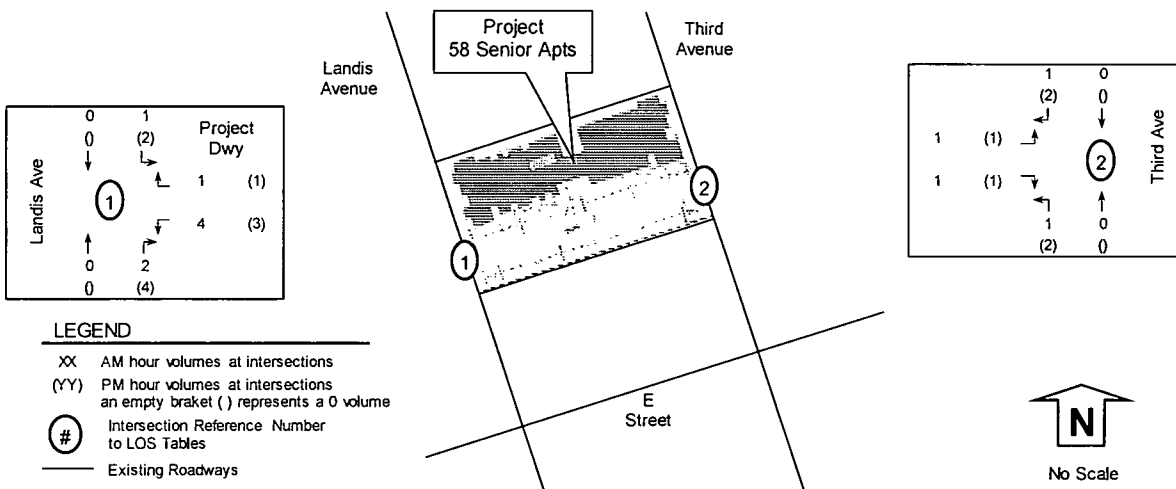
Source: SANDAG Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002. DU: Dwelling Unit  
 SF - Square Feet; ADT-Average Daily Traffic; Split-percent inbound and outbound. Excel rounding may result in ±1 to above numbers.

The project site has two driveways providing many options for circulation. The distribution was based on type of project drivers (majority being senior citizens with a few deliveries) and the ability to reach any direction simply by circulating the block and using either driveway. The split on Landis Ave has most of the project traffic due to the low volume while Third Ave has less distribution due to higher background volume. The project distribution is shown in **Figure 3** and the trip assignment is shown in **Figure 4**. The existing plus project traffic is shown in **Figure 5**.

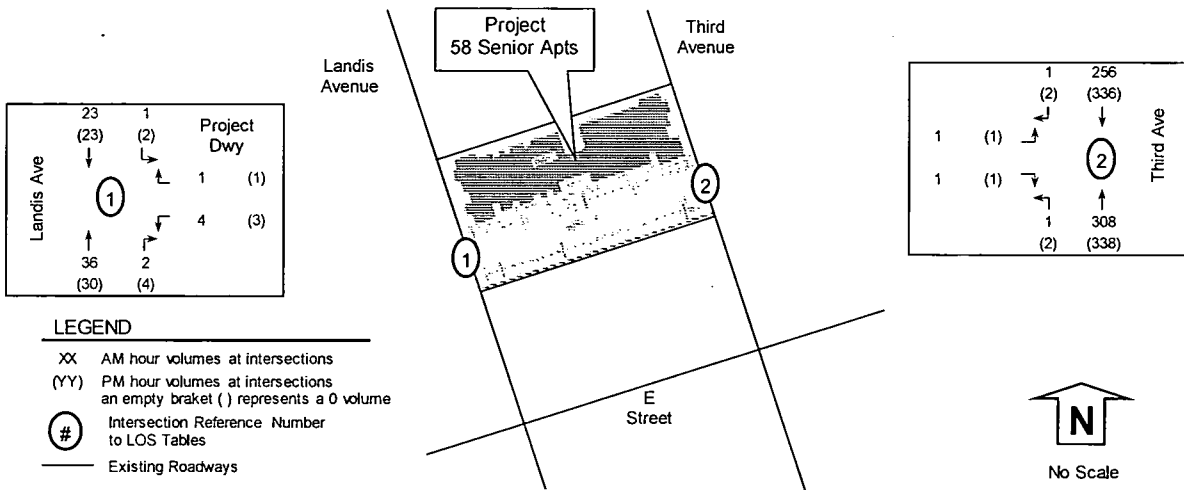
**Figure 3: Project Trip Distribution**



**Figure 4: Project Trip Assignment**



**Figure 5: Existing + Project**



A project is considered to have caused a direct impact if the new project traffic has changed the operations as noted below. A direct impact is determined if the project traffic results in a measurable reduction in the LOS on intersections.

**Intersections**

- a. Project specific impact if both the following criteria are met:
  - i. Level of service is LOS E or LOS F.
  - ii. Project trips comprise 5% or more of entering volume.

The LOS for existing and existing plus project are shown in **Table 3** with calculations included in **Appendix C**.

**TABLE 3: INTERSECTION LEVEL OF SERVICE**

Intersection and Movement (Analysis) <sup>1</sup>	Study Period	Existing		Existing + Project			
		Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Delta <sup>4</sup>	Direct Impact? <sup>5</sup>
1) Landis Ave at Project Dwy (U)	WB LR AM	0.0	A	8.8	A	8.8	No
	SB L AM	0.0	A	0.3	A	0.3	No
	WB LR PM	0.0	A	8.8	A	8.8	No
	SB L PM	0.0	A	0.6	A	0.6	No
2) Third Ave at Project Dwy (U)	EB LR AM	0.0	A	10.7	B	10.7	No
	NB L AM	0.0	A	0.0	A	0.0	No
	EB LR PM	0.0	A	11.4	B	11.4	No
	NB L PM	0.0	A	0.0	A	0.0	No

Notes: 1) Intersection Analysis (U) Unsignalized. 2) Delay HCM Average Control Delay in sec. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. 5) Direct Impact if project traffic exceeds threshold. Existing delay is 0.0 because the project will have new driveways.

As shown in Table 3, the addition of project traffic does not result in a direct impact because the LOS is B or better.

ON-STREET PARKING

As part of the project, a new project driveway will be installed on Landis Avenue to provide access to the project site. An existing driveway on Third Avenue will be reconstructed and continue to be used by the project. City staff suggested a survey of on-street weekday parking demands at 12 PM, 6 PM, and 11 PM. Parking demand counts were collected on Wednesday May 10, 2017 at 12 PM, 6 PM and 11 PM. There is on-street parking for approximately 72 unmarked spaces and 17 metered parking spaces on Landis Avenue between D Street and E Street. The metered spaces have a two-hour limit enforced from 9 AM to 6 PM excluding Sundays and holidays. On Third Avenue between D Street and E Street, there are a total of approximately 54 unmarked on-street spaces. The on-street parking supply and demand is summarized in **Table 4** (data included in **Attachment D**).

**TABLE 4: ON-STREET PARKING SUPPLY AND DEMAND**

Study Roadway	12 PM	6 PM	11 PM
<b>Landis Avenue between D &amp; E Street</b>			
Parking Supply (after project driveway)	87 spaces	87 spaces	87 spaces
Parking Demand	64 spaces	68 spaces	60 spaces
<b>Parking Surplus</b>	<b>23 spaces</b>	<b>19 spaces</b>	<b>27 spaces</b>
<b>Third Avenue between D &amp; E Street</b>			
Parking Supply	54 spaces	54 spaces	54 spaces
Parking Demand	41 spaces	36 spaces	30 spaces
<b>Parking Surplus</b>	<b>13 spaces</b>	<b>18 spaces</b>	<b>24 spaces</b>

As shown in Table 4, there is a surplus on Landis Avenue from 19 to 27 spaces and on Third Avenue from 13 to 24 spaces. As part of the project, 2 or 3 metered parking spaces along the project frontage on Landis Avenue will be removed to allow for the project driveway. The loss of 2 or 3 controlled metered spaces (due to the project driveway) is well within the available parking surplus based on the survey.

OFF-STREET (ON-SITE) PARKING

The project site is proposed with a total of 35 spaces. The parking allocation from City staff includes 30 standard resident spaces, 2 accessible spaces, and 3 leasing office & delivery spaces.

NEAR-BY PUBLIC TRANSIT

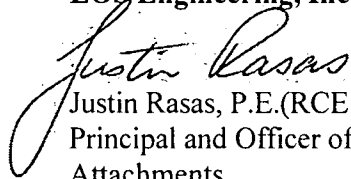
The project is located within a quarter mile walking distance from two bus stops on E Street (between Landis Ave and Third Ave) served by Metropolitan Transit System Routes 705 and 929. Maps of the routes and frequency of service are included in **Attachment E**.

CONCLUSION

The proposed 58 senior apartments at 178 Third Avenue will add new project traffic and a new driveway on Landis Avenue. With the addition of project traffic on Landis Avenue and Third Avenue, there are no calculated impacts at the project driveways with operations at LOS B or better. As part of the project, 2 or 3 metered parking spaces along the project frontage on Landis Avenue will be removed to allow for the project driveway. There is a surplus of on-street parking on Landis Avenue between D and E Streets of 23 spaces at 12 PM, 19 spaces at 6 PM, and 27 spaces at 11 PM, which can accommodate the net reduction of 2 or 3 on-street parking spaces on Landis due to the project driveway.

Please call me at 619-890-1253 if you have any questions.

Sincerely,  
**LOS Engineering, Inc.**



Justin Rasas, P.E.(RCE 60690), PTOE  
Principal and Officer of LOS Engineering, Inc.  
Attachments