ASSOCIATED TRANSPORTATION ENGINEERS
100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • (805) 687-4418 • FAX (805) 682-8509

Richard L. Pool, P.E.
Scott A. Schell, AICP

June 7, 2007

06091L02.WPD

Jeff Gorrell
Lenvik & Minor Architects
315 West Haley Street
Santa Barbara, CA 93101

RESPONSE TO COMMENTS MADE IN THE DART LETTER FOR THE 1298 COAST VILLAGE ROAD MIXED-USE DEVELOPMENT, CITY OF SANTA BARBARA, CALIFORNIA

The following letter addresses comments made by the City in the DART letter for the 1298 Coast Village Road Mixed-Use Project.

Intersection Counts

As requested in the DART letter comments, A.M. and P.M. peak hour turning movement counts were conducted at the Coast Village Road/Olive Mill Road/US Highway 101/Jameson Road intersection on April 5, 2007. Figures 1 and 2 show the traffic volumes for the intersection.

Intersection Level of Service

Level of Service for the Coast Village Road/Olive Mill Road/US Highway 101/Jameson Road intersection was determined using delay data that was collected during the count periods mentioned above. Delay data was collected by recording the number of queued vehicles for each approach every 15 seconds for the duration of the count period. The total number of queued vehicles recorded during the peak hour by approach was then multiplied by 15 seconds to determine the total delay. The total delay was then divided by the number of vehicles counted at each approach to determine the average delay experienced for each vehicle. Then average delay per vehicle at the intersection was calculated and 5 seconds was added to account for vehicle start/stop time. Table 1 presents the peak hour intersection levels of service. Calculation worksheets are attached to this letter for reference.

Table 1
Intersection Peak Hour Levels of Service

Time Period	Level of Service
A.M. Peak Hour	19.7 sec./LOS C
P.M. Peak Hour	16.5 sec./LOS C

The data in Table 1 shows that the intersection currently operates at LOS C during the A.M. and P.M. peak hour periods.

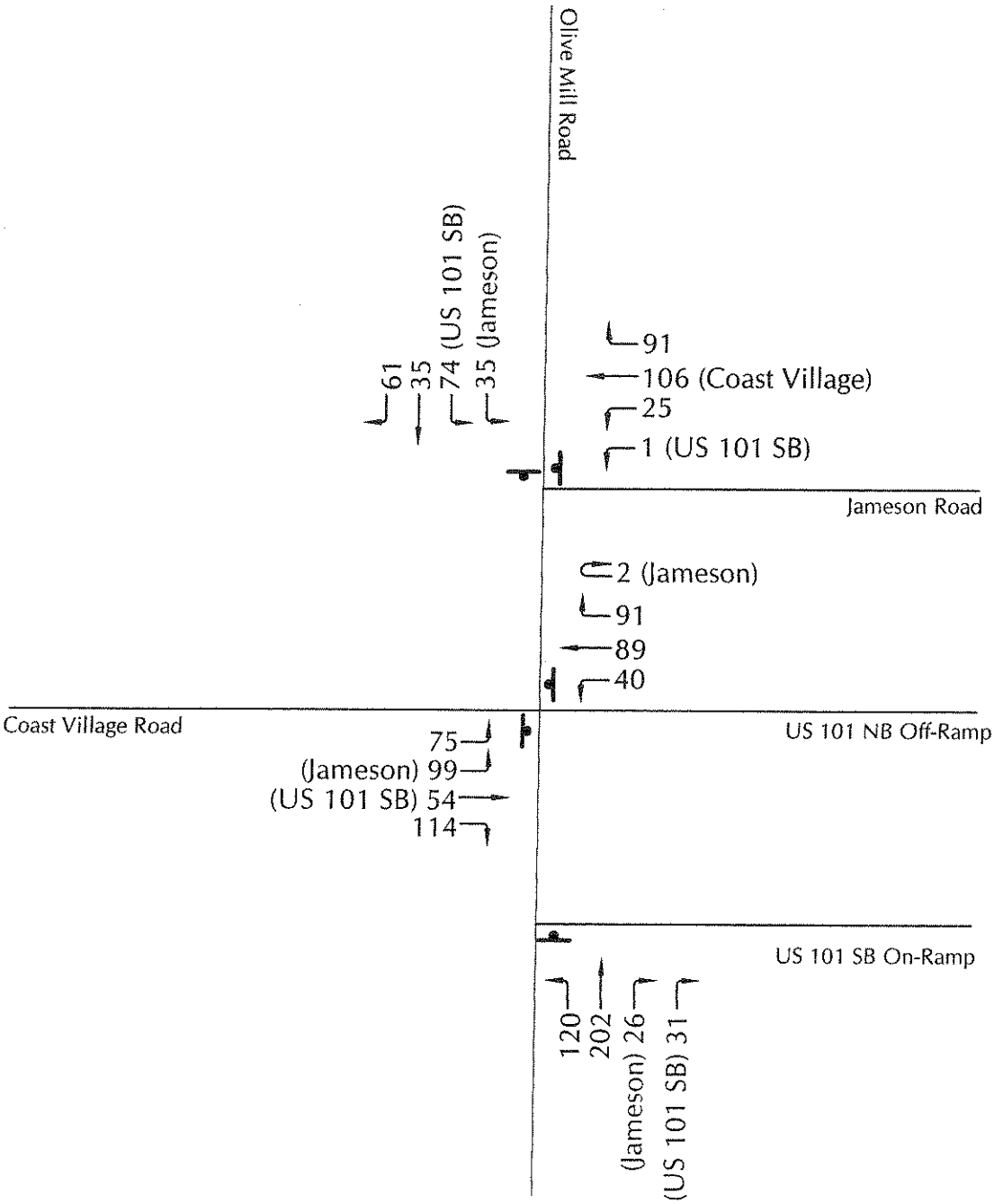
This concludes ATE's response to comments made in the DART letter for the 1298 Coast Village Road Mixed-Use Development.

Associated Transportation Engineers

By: Scott A. Schell, AICP
Principal Transportation Planner

SAS:MMF

Attachments: Figure 1 - A.M. Peak Hour Traffic Volumes
Figure 2 - P.M. Peak Hour Traffic Volumes
Level of Service Calculation Worksheets



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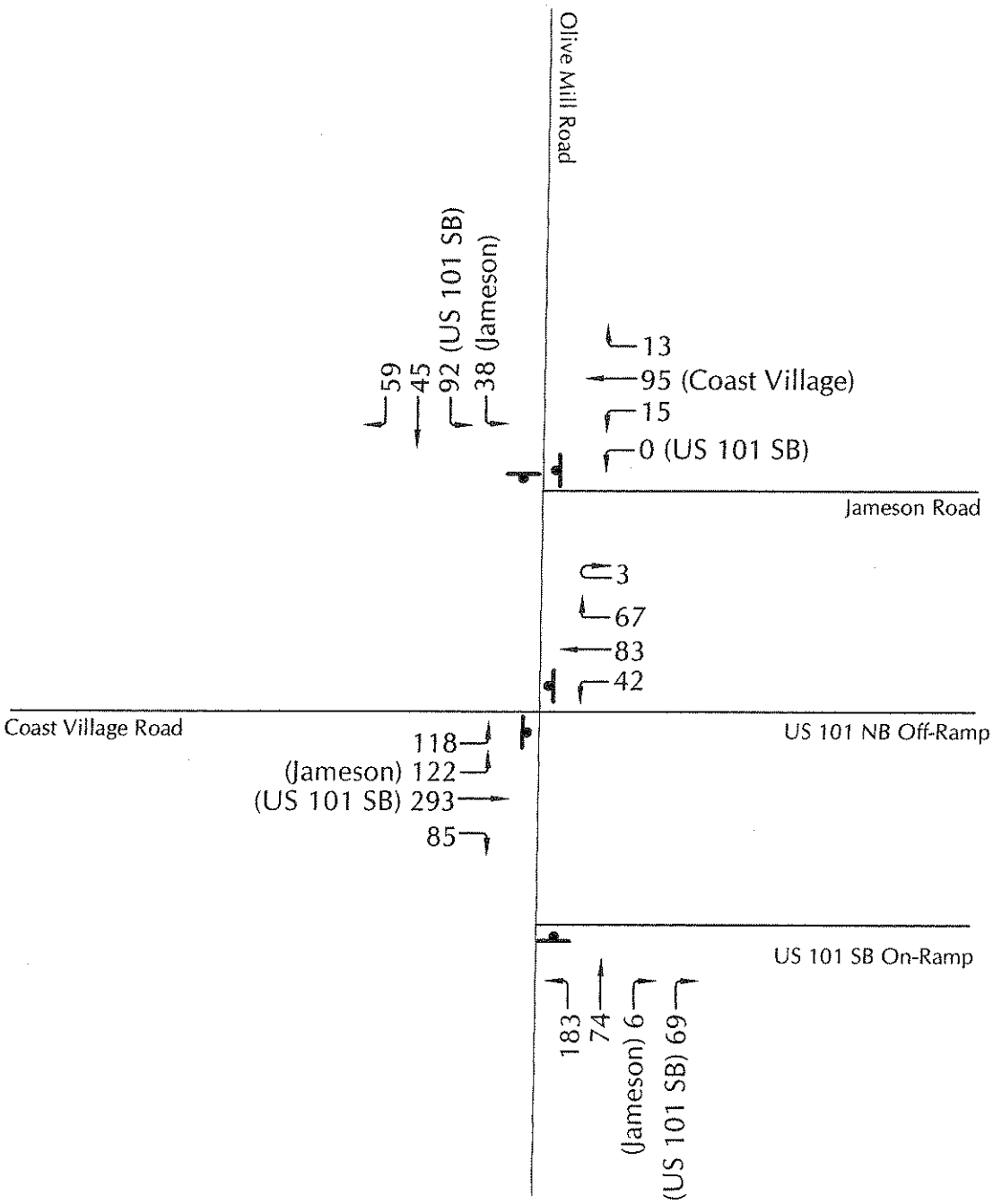
A.M. PEAK HOUR TRAFFIC VOLUMES

FIGURE 1

MMF - 06091



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P.M. PEAK HOUR TRAFFIC VOLUMES

FIGURE 2

MMF - 06091

AM Peak Hour					
	north	off ramp	jameson	south	east
queued vehicles	665	209	123	124	287
total delay	9975	3135	1845	1860	4305
approach vehicles	379	222	172	205	322
avg. delay per vehicle	26.3	14.1	10.7	9.1	13.4
Avg. Intersection Delay			14.7		
+ 5 seconds for vehicle start/stop time			19.7		LOS C

PM Peak Hour					
	North	Off Ramp	Jameson	South	East
Queued vehicles	375	111	81	129	570
total delay	5625	1665	1215	1935	8550
approach vehicles	332	195	123	234	618
avg. delay per vehicle	16.9	8.5	9.9	8.3	13.8
Avg. Intersection Delay			11.5		
+ 5 seconds for vehicle start/stop time			16.5		LOS C

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Richard L. Pool, P.E.
Scott A. Schell, AICP

September 28, 2006

06091L01.WPD

Jeff Gorrell
Lenvik & Minor Architects
315 West Haley Street
Santa Barbara, CA 93101

TRAFFIC GENERATION ANALYSIS FOR THE 1298 COAST VILLAGE ROAD MIXED-USE DEVELOPMENT, CITY OF SANTA BARBARA, CALIFORNIA

Associated Transportation Engineers (ATE) has prepared the following traffic generation analysis for the 1298 Coast Village Road Mixed-Use Development, proposed in the City of Santa Barbara. The traffic study determines the project's trip generation and identifies potential traffic impacts based on City thresholds.

PROJECT DESCRIPTION

The project site is located at 1298 Coast Village Road on the northwest corner of Coast Village Road and Olive Mill Road, in the City of Santa Barbara. The site is currently occupied with a service station containing 8 fueling positions and two automobile repair and service bays. The project is proposing to demolish the existing service station and construct 8 condominiums and 5,876 gross square feet of commercial space. Parking for the project would be provided in a surface parking lot and in a subterranean parking garage.

PROJECT TRIP GENERATION

In determining whether the traffic impacts generated by a project are significant, the traffic analysis compares the potential traffic generation of a project with pre-project environmental conditions. This is generally referred to setting the "baseline" for the environmental review. A trip generation analysis was therefore completed to compare the level of traffic that would be generated by the proposed development with the level of traffic generated by the existing service station.

Existing Service Station

Trip generation estimates were calculated for the existing service station based on the average trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual[1] for Gasoline/Service Station (Land Use #944 - see attachments for trip rate data). The ITE description for service stations states that their "primary business is the fueling of motor vehicles" and that they "may also have ancillary facilities for servicing and repairing motor vehicles". This description is and ideal fit for the existing facility.

Many of the vehicular trips to and from the service station will be pass-by trips rather than primary trips. Primary trips are made with the sole purpose of visiting the service station, such as patrons traveling from home to the service station and then traveling back home again. Pass-by trips already exist on the adjacent street system and would stop at the site during their primary trip, for example, drivers traveling on Olive Mill Road who would stop by the service station on their way home from work. A pass-by rate of 50% was used for the service station based on data presented in the ITE Trip Generation Handbook[2] (42%-58%) and the San Diego Association of Governments (SANDAG) Traffic Generators manual (50%).[3] Copies of the pass-by data are attached.

Table 1 shows the trip generation calculations competed for the project.

Table 1
Existing Site Trip Generation Estimates

Land Use	Size	ADT		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Service Station *with 50% pass-by*	8 Fueling Positions	168.56	1348 674	12.07	97 49	13.86	111 56
TOTAL PRIMARY TRIPS			**674**		**48**		**55**

The data presented in Table 1 shows that the service station would generate 674 ADT, 48 A.M. peak hour trips (PHT), and 55 P.M. PHT, assuming the reductions for pass-by trips.

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1 Trip Generation, Institute of Transportation Engineers, 7th Edition, 2003

2 Trip Generation Handbook, Institute of Transportation Engineers, 2nd Edition, 2004

3 San Diego Traffic Generators, San Diego Association of Governments, 2002

Proposed Project

Trip generation estimates for the proposed project were calculated based on data presented in the ITE Trip Generation report (7th Edition) the SANDAG Traffic Generators report. The following text reviews the specific rates used for the Trip Generation analysis.

- **Specialty Retail.** The equation rates listed in the ITE 7th Edition for Specialty Retail Centers (Land Use Code #814) were used for this project component. Because no A.M. peak data is available in the ITE Trip Generation manual, 3% of the ADT was assumed per the SANDAG Traffic Generators manual. A 10% Pass-By reduction rate was applied per the SANDAG manual (see attachments for trip rate data).

- **Residential Condominium.** The ITE 7th Edition average rates for Residential Condominiums/Townhouses (Land Use Code #230) were used to determine the trip generation for this component of the project (see attachments for trip rate data).

Table 2 shows the proposed project trip generation estimates.

Table 2
Proposed 1298 Coast Village Road Mixed-Use Project Trip Generation

Land Use	Size(a)	ADT		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Specialty Retail *with 10% Pass-By*	5,876 sf	49.19(b)	289 260	1.48(b)	9 8	6.06(b)	36 32
Condominiums	8 units	5.86	47	0.44	4	0.52	4
TOTAL			**307**		**12**		**36**

(a) Gross square-feet of building
(b) Rates based on ITE 7th Edition equations. A.M. Rate based on 3% of the ADT per SANDAG.

Table 2 shows that the proposed project would generate 307 ADT, 12 A.M. PHT, and 36 P.M. PHT.

Table 3 compares existing traffic levels for the service station with the traffic generated by the proposed project.

Table 3
Trip Generation Comparison - Primary Trips

Scenario	ADT	A.M. Peak Hour	P.M. Peak Hour
Existing Service Station	674	48	55
Proposed Project	307	12	36
Difference	**-367**	**-36**	**-19**

Table 3 shows that the project would result in a reduction of 367 average daily trips, 36 A.M. PHT, and 19 P.M. PHT from the previous service station use. Because the project results in a reduction in average daily A.M. and P.M. peak hour traffic, there is no potential to significantly impact the study-area roadways and intersections based on City of Santa Barbara and County of Santa Barbara traffic impact thresholds.

This concludes ATE's traffic study for the 1298 Coast Village Road Mixed-Use Development.

Associated Transportation Engineers

By: Scott A. Schell, AICP
Principal Transportation Planner

SAS: DH

Attachments: Trip Generation and Pass-By Data

Summary of Trip Generation Calculation
For 8 Vehicle Fueling Positions of Gasoline Service Station
September 18, 2006

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	168.56	71.19	1.00	1348
7-9 AM Peak Hour Enter	6.04	0.00	1.00	48
7-9 AM Peak Hour Exit	6.04	0.00	1.00	48
7-9 AM Peak Hour Total	12.07	4.29	1.00	97
4-6 PM Peak Hour Enter	6.93	0.00	1.00	55
4-6 PM Peak Hour Exit	6.93	0.00	1.00	55
4-6 PM Peak Hour Total	13.86	6.69	1.00	111
Saturday 2-Way Volume	0.00	0.00	1.00	0
Saturday Peak Hour Enter	0.00	0.00	1.00	0
Saturday Peak Hour Exit	0.00	0.00	1.00	0
Saturday Peak Hour Total	0.00	0.00	1.00	0

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Summary of Trip Generation Calculation
For 8 Dwelling Units of Residential Condominium / Townhouse
September 18, 2006

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	5.86	3.09	1.00	47
7-9 AM Peak Hour Enter	0.07	0.00	1.00	1
7-9 AM Peak Hour Exit	0.37	0.00	1.00	3
7-9 AM Peak Hour Total	0.44	0.69	1.00	4
4-6 PM Peak Hour Enter	0.35	0.00	1.00	3
4-6 PM Peak Hour Exit	0.17	0.00	1.00	1
4-6 PM Peak Hour Total	0.52	0.75	1.00	4
Saturday 2-Way Volume	5.67	3.10	1.00	45
Saturday Peak Hour Enter	0.25	0.00	1.00	2
Saturday Peak Hour Exit	0.22	0.00	1.00	2
Saturday Peak Hour Total	0.47	0.71	1.00	4

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Summary of Trip Generation Calculation
For 5.876 T.G.L.A. of Specialty Retail Center
September 18, 2006

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	49.19	0.00	1.00	289
7-9 AM Peak Hour Enter	0.00	0.00	1.00	0
7-9 AM Peak Hour Exit	0.00	0.00	1.00	0
7-9 AM Peak Hour Total	0.00	0.00	1.00	0
4-6 PM Peak Hour Enter	2.66	0.00	1.00	16
4-6 PM Peak Hour Exit	3.39	0.00	1.00	20
4-6 PM Peak Hour Total	6.06	0.00	1.00	36
Saturday 2-Way Volume	0.00	0.00	1.00	0
Saturday Peak Hour Enter	0.00	0.00	1.00	0
Saturday Peak Hour Exit	0.00	0.00	1.00	0
Saturday Peak Hour Total	0.00	0.00	1.00	0

Note: A zero indicates no data available.
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	T = 42.78(X) + 37.66, R^2 = 0.69
7-9 AM Peak Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
4-6 PM Peak Hr. Total:	T = 2.4(X) + 21.48
	R^2 = 0.98 , 0.44 Enter, 0.56 Exit
AM Gen Pk Hr. Total:	T = 4.91(X) + 115.59
	R^2 = 0.9 , 0.48 Enter, 0.52 Exit
PM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
Sat. 2-Way Volume:	0, R^2 = 0
Sat. Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
Sun. 2-Way Volume:	0, R^2 = 0
Sun. Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit

Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Table 5.28
Pass-By Trips and Diverted Linked Trips
Weekday, p.m. Peak Period

Land Use 944—Gasoline/Service Station

SIZE (1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PRIMARY TRIP (%)	NON-PASS-BY TRIP (%)	DIVERTED LINKED TRIP (%)	PASS-BY TRIP (%)	ADJ. STREET PEAK HOUR VOLUME	SOURCE
n/a	n/a	Chicago suburbs, IL	1987	48	3:00–7:00 p.m.	—	79	—	21	n/a	Kenig, O'Hara, Humes, Flock
n/a	n/a	Chicago suburbs, IL	1987	34	3:00–6:00 p.m.	—	75	—	25	n/a	Kenig, O'Hara, Humes, Flock
n/a	n/a	Chicago suburbs, IL	1987	42	3:00–6:00 p.m.	—	80	—	20	n/a	Kenig, O'Hara, Humes, Flock
2.3	6	Gaithersburg, MD	1992	55	4:00–6:00 p.m.	11	—	49	40	2,760	RBA
2.1	6	Bethesda, MD	1992	30	4:00–6:00 p.m.	20	—	27	53	1,060	RBA
1.7	6	Wheaton, MD	1992	18	4:00–6:00 p.m.	6	—	33	61	2,510	RBA
2.0	8	Gaithersburg, MD	1992	47	4:00–6:00 p.m.	23	—	15	62	2,635	RBA
1.2	6	Damascus, MD	1992	26	4:00–6:00 p.m.	11	—	31	58	1,020	RBA
0.3	12	Wheaton, MD	1992	52	4:00–6:00 p.m.	10	—	52	38	3,835	RBA

Average Pass-By Trip Percentage: 42

Table 5.27
Pass-By Trips and Diverted Linked Trips
Weekday, a.m. Peak Period

Land Use 944—Gasoline/Service Station

SIZE (1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PRIMARY TRIP (%)	NON-PASS-BY TRIP (%)	DIVERTED LINKED TRIP (%)	PASS-BY TRIP (%)	ADJ. STREET PEAK HOUR VOLUME	SOURCE
2.3	6	Gaithersburg, MD	1992	37	7:00–9:00 a.m.	41	—	27	32	2,080	RBA
2.1	6	Bethesda, MD	1992	26	7:00–9:00 a.m.	23	—	19	58	2,080	RBA
1.7	6	Wheaton, MD	1992	21	7:00–9:00 a.m.	14	—	19	67	900	RBA
2.0	8	Gaithersburg, MD	1992	46	7:00–9:00 a.m.	13	—	0	87	2,235	RBA
1.2	6	Damascus, MD	1992	21	7:00–9:00 a.m.	28	—	29	43	870	RBA
0.3	12	Wheaton, MD	1992	36	7:00–9:00 a.m.	8	—	31	61	3,480	RBA

Average Pass-By Trip Percentage: 58

(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**	5%	(4:6)	7%	(6:4)
Congregate Care Facility	2.5/dwelling unit**	4%	(6:4)	8%	(5:5)
RESTAURANT[S] ..... [51:37:12]					
Quality	100/1000 sq. ft., 3/seat, 500/acre* **	1%	(6:4)	8%	(7:3)
Sit-down, high turnover	160/1000 sq. ft., 6/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, $2^{1/2}$/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)

4.7

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* 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.

[P] 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.

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

[C] Fitted curve equation: $Ln(T) = 0.502\ Ln(x) + 6.945$

[D] Fitted curve equation: $Ln(T) = 0.756\ Ln(x) + 3.950$

} T = total trips, x = 1,000 sq. ft.

[R] Fitted curve equation: $t = -2.169\ Ln(d) + 12.85$ t = trips/DU, d = density (DU/acre), DU = dwelling unit

[S] 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	
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%

[T] 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).