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**CITY OF SANTA BARBARA
PLANNING DIVISION**

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UPDATED PHASE I TRAFFIC AND PARKING ANALYSIS FOR THE VISITING NURSE AND HOSPICE CARE PROJECT, CITY OF SANTA BARBARA

Associated Transportation Engineers (ATE) has prepared the following updated Phase I traffic and parking analysis for the Visiting Nurse and Hospice Care (VNHC) Project. The Phase I traffic analysis was prepared to determine the project's potential to generate project-specific or cumulative impacts to the intersections in the study-area. The analysis also evaluates the project's peak parking demands and determines the adequacy of the proposed on-site parking supply. This updated study incorporates the most current project description information that has been developed for the project.

PROJECT DESCRIPTION

VNHC is proposing to develop a hospice facility at 930 Miramonte Drive in the City of Santa Barbara. The site was previously occupied with a Research and Garden Center run by the Community Environmental Council (CEC). The project proposes to develop an 18-bed hospice facility at the site. A total of 27 parking spaces would be provided, with 22 spaces in an underground parking garage and 5 spaces in surface parking areas. A loading space is also proposed for delivery vehicles.

PROJECT TRIP GENERATION

Existing Land Use

The existing site has historically been used by the CEC and consists of a 4,143 square-foot Resource Center, a 640 square-foot Garden Center and a 453 square-foot garage/workshop. The site is zoned for residential, but the CEC obtained a Conditional Use Permit that allows for a farming operation, horticultural demonstration facility and educational activities. Given that the site has historically operated as the CEC's primary office, the trip generation for the existing land use was calculated using the Single-Tenant Office rates listed in the Institute of Transportation Engineers (ITE) Trip Generation Manual.¹ Table 1 shows the trip generation estimates for the existing CEC land use.

Table 1
Existing Site Trip Generation

Land Use	Size	Average Daily		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
CEC Office	5,236 s.f.	11.57	61	1.80	9	1.73	9

Table 1 shows that the uses which previously occupied the site are estimated to generate 61 ADT, 9 A.M. peak hour trips and 9 P.M. peak hour trips.

Proposed Project

Trip generation estimates were developed for the proposed 18-bed hospice facility based on the proposed employee and volunteer staffing levels and shift schedules (attached for reference), delivery information, as well as visitor count data collected at VNHC's Serenity House hospice located within the Valle Verde retirement community in the City of Santa Barbara. Serenity House is a 6-bed hospice that provides inpatient care to individuals with terminal illnesses. The following text reviews the specific assumptions used to evaluate project-generated traffic.

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

Hospice Staff. VNHC is proposing the following staffing levels and shift schedules:

Days:	1 RN	2 LVN	3 Aides	7:00 AM - 3:00 PM Shift
Evenings:	1 RN	2 LVN	3 Aides	3:00 PM - 11:00 PM Shift
Nights:	1 RN	1 LVN	3 Aides	11:00 PM - 7:00 PM Shift

Volunteer Staff. VNHC is proposing the following volunteer levels and shift schedules:

Days:	3 Volunteers	9:30 AM - 3:30 PM Shift
Evenings:	2 Volunteers	3:30 PM - 6:30 PM Shift
Nights:	2 Volunteers	6:30 PM - 9:30 AM Shift

It is noted that the shift schedules proposed for the employees and volunteer staff would start and end outside of the morning and afternoon peak hour periods, thus minimizing the peak hour trip generation at the site.

Additional Staff Visits

Housekeeping	1 Staff visit per day
Cook	1 Staff visit per day
Social Worker	1 Staff visit per day
Chaplain	1 Staff visit per day
Physician	1 Staff visit per day

The housekeeping staff and the cook would arrive at the site early in the morning prior to 7:00 A.M. The remaining staff do not have a set schedule and would arrive and depart from the site at variable times. The trip generation analysis assumes that one staff would arrive during the A.M. peak hour period and one staff would depart the site during the peak hour period as a worst-case assumption.

Deliveries

Medications	1 Delivery per day
Medical Supplies	1 Delivery per week
Trash Pick-Up	3 pick-ups per week
Groceries	3 Deliveries per week
Equipment	3 Deliveries per week

Deliveries are generally scheduled outside of the morning and evening peak hour periods. The trip generation analysis assumes that one delivery could be made in the afternoon peak hour period as a worst-case assumption.

Visitors. Traffic counts were conducted at the Serenity House to determine the level of visitor activity associated with the facility. The counts were completed for two days during the 7:00-9:00 A.M. and 4:00-6:00 P.M. peak periods. The A.M. and P.M. peak hour visitor trips were determined from the manual counts and the average daily visitor traffic were estimated using a log of visitor arrivals and departures provided by Serenity House/VNHC staff. The data was collected for two weekdays (June 15 and June 16, 2006). The traffic count data and visitor log sheet are attached for reference. The numbers of visitor trips observed at the Serenity House were then correlated to the 6 beds provided at the facility to develop a visitor trip rate per bed. This visitor trip rate was then applied to the proposed 18-bed facility.

Table 2 illustrates the project trip generation estimates that were calculated based on the various assumptions listed above.

Table 2
Serenity House Project Trip Generation

Project Component	Number	Average Daily		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Hospice Staff	17 Staff	2.5	43	0.0	0	0.0	0
Other Staff	5 Staff	2.5	13	0.2	1	0.2	1
Volunteers	7 Volunteers	2.5	18	0.0	0	0.0	0
Visitors ^(a)	18 Beds	2.0	36	0.00	0	0.33	6
Deliveries ^(b)	2 Deliveries	2.0	4	0.0	0	1.0	2
TOTAL			114		1		9

^(a) Visitor trip rates derived from data collected at Serenity House.

^(b) Majority of deliveries completed outside peak periods.

Table 2 shows that the project would generate 114 ADT, 1 A.M. peak hour trip and 9 P.M. peak hour trips. Table 3 compares the existing and proposed trip generation estimates for the site.

**Table 3
Project Trip Generation Comparison**

Land Use	ADT	A.M. PHT	P.M. PHT
Existing CEC	61	9	9
Proposed Project	114	1	9
Net-Added Trips	+53	-8	+0

The data presented in Table 3 show that the project would result in a net addition of 53 average daily trips. The data also show that with the proposed employee and volunteer shift schedules, the project would result in a reduction of 8 A.M. peak hour trips and no change in P.M. peak hour trips in the study-area. Because the project is not forecast to generate additional peak hour trips in the study area, no traffic impacts would be generated based on the City of Santa Barbara's thresholds of significance.

It is noted that the additional daily trips generated by the project will be spread out during the day and evening hours. These additional daily trips would equate to approximately 5 trips in any given hour, and would not measurably affect the study-area street network.

SITE ACCESS

Access to the site would be provided from Miramonte Drive via two easements through the Highlands Complex and an adjacent single-family residence. The existing access road serving the site varies in width. At the pinch point, a 90-degree curve just west of the Highlands Complex driveway, the road is 10 feet wide, with retaining walls on both sides of the road. Closer to the property, the road is 14 feet wide, with an additional 6 foot-wide planter.

City staff have indicated that the project will widen the road to 20 feet, which would be consistent with the City's residential roadway width standard.

PARKING ANALYSIS

Parking Supply

The project is proposing to maintain 5 surface parking spaces on-site and provide an additional 22 spaces in an underground garage, for a total parking supply of 27 spaces. The project also includes a loading space for delivery vehicles.

City Zoning Ordinance Requirements

The City's Zoning Ordinance parking ratio for the project is summarized below:

Skilled Nursing Facility/Hospice: 0.50 spaces / 1 bed

Based on this ratio, the project's Zoning Ordinance parking requirements were calculated as shown below in Table 4.

Table 4
Zoning Ordinance Parking Requirement for the VNHC Project

Land Use	Size	City Parking Ratio	Parking Space Requirement
Skilled Nursing Facility	18 beds	0.5 space / 1 bed	9 Spaces

The data presented in Table 4 show that the City Zoning Ordinance parking requirement for the project would be 9 parking spaces. The 27 spaces proposed for the site would therefore satisfy the City's Zoning Ordinance parking requirement.

Parking Demand Analysis

The proposed hospice will provide end-of-life care to patients with terminal illnesses. The facility is expected to generate higher amounts of visitors on a daily basis when compared with a typical skilled nursing facility, nursing home or convalescent care facility. A parking demand analysis was therefore developed for the project utilizing the operational data provided by VNHC staff and rates developed from the Serenity House counts and staff/visitor log data.

Peak parking demand estimates for the project were calculated using the following operational assumptions:

Hospice Staff. As reviewed previously, the proposed facility will be staffed with 6 employees during the day and evening shifts and 5 employees during the night shift. The parking demand analysis assumes that all staff would drive to the site.

Additional Staff. As reviewed previously, the proposed facility could have 5 additional employees during the day. The parking demand analysis assumes that all staff would drive to the site.

Volunteers. A total of 3 volunteers would work at the site during the day and evening shifts and 2 volunteers would be at the site during the night shift. The parking demand analysis assumes that all volunteers would drive to the site.

Visitors. VNHC staff have indicated that during the busiest visitor times at the 6-bed Serenity House (usually between 10:00 A.M. and 2:00 P.M.), approximately 4 patients (4 out of a total of 6 beds) are being visited, usually with only one person or one group from the same vehicle for each patient. This equates to 4 vehicles parked at Serenity House during the peak parking demand period. Using the 6 beds as an independent variable, the Serenity House experiences a peak visitor parking demand rate of 0.66 visitor space/bed. This rate was applied to the proposed project to determine the project's peak visitor parking demand.

Table 5 shows the peak parking demands for the project using the assumptions outlined above.

Table 5
Project Peak Parking Demand (10:00 A.M.-2:00 P.M.)

Use	Size	Rate	Peak Parking Demand
Hospice Employees	6 Staff	1.0 Space/Staff	6 Spaces
Additional Employees	5 Staff	1.0 Space/Staff	5 Spaces
Volunteers	3 Volunteers	1.0 Space/Staff	3 Spaces
Visitors	18 Beds	0.66 Spaces/bed	12 Spaces
Total			26 Spaces

The data presented in Table 5 indicate that the day-to-day operations would generate a peak parking demand of 26 spaces. This parking demand would be accommodated by the 27 garage and surface spaces proposed for the site.

This concludes ATE's updated Phase I traffic and parking analysis for the Visiting Nurse and Hospice Care Project.

Associated Transportation Engineers


Scott A. Schell, AICP
Principal Transportation Planner

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Attachments: Serenity House Visitor Log Data
Serenity House Visitor Traffic Count Data

SERENITY HOUSE TRAFFIC SURVEY-STAFF, VISITORS, AND DELIVERIES
THURSDAY, JUNE 15, 2006

# VEHICLES	ARRIVALS	TIME	# VEHICLES	DEPARTURES	TIME
1	STAFF (RN)	8:00 AM	1	STAFF (RN)	4:00 PM
1	STAFF (CNA)	8:00 AM	1	STAFF (CNA)	4:00 PM
1	VOLUNTEER	8:00 AM	1	VOLUNTEER	12:30 PM
1	GUEST (ROOM D)	10:18 AM	1	GUEST (ROOM D)	11:00 AM
1	UPS DELIVERY	11:25 AM	1	UPS DELIVERY	11:28 AM
1	VOLUNTEER	12:30 PM	1	VOLUNTEER	5:00 PM
1	2 GUESTS (ROOM A)	2:20 PM	1	2 GUESTS (ROOM A)	2:21 PM
1	GUEST (ROOM A)	3:00 PM	1	GUEST (ROOM A)	3:50 PM
1	2 GUESTS (ROOM E)	3:30 PM	1	2 GUESTS (ROOM E)	5:15 PM
1	STAFF (RN)	4:00 PM	1	AFTER 6:00 PM	
1	STAFF (CNA)	4:00 PM	1	AFTER 6:00 PM	
1	VOLUNTEER	5:00 PM	1	VOLUNTEER	6:00 PM

SERENITY HOUSE TRAFFIC SURVEY-STAFF, VISITORS, AND DELIVERIES
FRIDAY, JUNE 16, 2006

# VEHICLES	ARRIVALS	TIME	# VEHICLES	DEPARTURES	TIME
1	STAFF (RN)	8:00 AM	1	STAFF (RN)	4:00 PM
1	STAFF (CNA)	8:00 AM	1	STAFF (CNA)	4:00 PM
1	VOLUNTEER	8:00 AM	1	VOLUNTEER	12:30 PM
1	PHARMACY DELIVERY	10:25 AM	1	PHARMACY DELIVERY	10:28 AM
1	GUEST (ROOM C)	11:25 AM	1	GUEST (ROOM C)	11:45 AM
1	GUEST (ROOM C)	12:10 PM	1	GUEST (ROOM C)	4:15 PM
1	GUEST (ROOM A)	12:10 PM	1	GUEST (ROOM A)	5:00 PM
1	VOLUNTEER	12:30 PM	1	VOLUNTEER	4:00 PM
1	2 GUESTS (ROOM F)	3:30 PM	1	2 GUESTS (ROOM F)	5:00 PM
1	DELIVERY	3:10 PM	1	DELIVERY	3:20 PM
1	STAFF (RN)	4:00 PM	1	AFTER 6:00 PM	
1	STAFF (CNA)	4:00 PM	1	AFTER 6:00 PM	
1	VOLUNTEER	4:00 PM	1	VOLUNTEER	6:00 PM
1	GUEST (ROOM F)	4:15 PM	1	GUEST (ROOM F)	4:40 PM
1	GUEST (ROOM A)	4:30 PM	1	AFTER 6:00 PM	
1	PHARMACY DELIVERY	5:10 PM	1	PHARMACY DELIVERY	5:12 PM
1	APRIA HEALTHCARE	5:19 PM	1	APRIA HEALTHCARE	5:21 PM

SERENITY HOUSE TRAFFIC SURVEY-STAFF, VISITORS, AND DELIVERIES
SATURDAY, JUNE 17, 2006

# VEHICLES	ARRIVALS	TIME	# VEHICLES	DEPARTURES	TIME
1	STAFF (RN)	8:00 AM	1	STAFF (RN)	4:00 PM
1	STAFF (CNA)	8:00 AM	1	STAFF (CNA)	4:00 PM
1	VOLUNTEER	8:00 AM	1	VOLUNTEER	1:00 PM
1	CONSULTANT	12:10 PM	1	CONSULTANT	12:30 AM
1	PEST CONTROL	12:15 PM	1	PEST CONTROL	12:30 PM
1	FEDEX DELIVERY	12:25 PM	1	FEDEX DELIVERY	12:30 PM
1	GUEST (ROOM A)	12:25 PM	1	GUEST (ROOM A)	3:45 PM
1	VOLUNTEER	1:00 PM	1	VOLUNTEER	4:00 PM
1	GUEST (ROOM D)	1:55 PM	1	GUEST (ROOM D)	3:30 PM
1	GUEST (ROOM A)	2:05 PM	1	GUEST (ROOM A)	2:30 PM
1	PHARMACY DELIVERY	2:45 PM	1	PHARMACY DELIVERY	2:48 PM
1	LAUNDRY DELIVERY	2:46 PM	1	LAUNDRY DELIVERY	2:47 PM
1	GUEST (ROOM A)	3:20 PM	1	AFTER 6:00 PM	
1	GUEST (ROOM B)	3:50 PM	1	GUEST (ROOM B)	5:45 PM
1	VNA-LOMPOC	3:50 PM	1	VNA-LOMPOC	4:50 PM
1	STAFF (RN)	4:00 PM	1	AFTER 6:00 PM	
1	STAFF (CNA)	4:00 PM	1	AFTER 6:00 PM	
1	VOLUNTEER	4:00 PM	1	VOLUNTEER	6:00 PM
1	3 GUESTS (ROOM D)	5:55 PM	1	AFTER 6:00 PM	
1	GUEST (ROOM B)	6:00 PM	1	AFTER 6:00 PM	

SERENITY HOUSE @ VALLE VERDE 2006

Wednesday June 14, 2006

TIME	STAFF/DELIVERY		VISITORS		TOTAL		TOTAL
	In	Out	In	Out	In	Out	
4:15-4:30	0	0	1	1	1	1	2
4:30-4:45	1	1	0	0	1	1	2
4:45-5:00	1	0	0	0	1	0	1
5:00-5:15	0	0	0	0	0	0	0
6:15-6:30	0	1	0	1	0	2	2
6:30-6:45	0	0	0	0	0	0	0
Peak Hour	2	1	1	1	3	2	5
4:15-5:15					60%	40%	

Thursday June 15, 2006

TIME	STAFF/DELIVERY		VISITORS		TOTAL		TOTAL
	In	Out	In	Out	In	Out	
7:15-7:30	0	0	0	0	0	0	0
7:30-7:45	2	0	0	0	2	0	2
7:45-8:00	0	0	0	0	0	0	0
8:00-8:15	1	1	0	0	1	1	2
8:15-8:30	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0
Peak Hour	3	1	0	0	3	1	4
7:30-8:30					75%	25%	

NOTES:

6/15/2006 - 2 In trips for roof construction at 8:09 and 8:27

TRAFFIC GENERATION AT SERENITY HOUSE @ VALLE VERDE

Thursday June 15, 2006

TIME	STAFF/DELIVERY		VISITORS		TOTAL		TOTAL
	In	Out	In	Out	In	Out	
7:30-7:45	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0
8:00-8:15	3	0	0	0	3	0	3
8:15-8:30	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0
Peak Hour	3	0	0	0	3	0	3
	8:00-9:00		8:00-9:00		100%	0%	
4:00-4:15	2	2	0	0	2	2	4
4:15-4:30	0	0	0	0	0	0	0
4:30-4:45	0	0	0	0	0	0	0
4:45-5:00	0	0	0	0	0	0	0
5:00-5:15	1	1	0	1	1	1	2
5:15-5:30	0	1	0	0	0	1	1
Peak Hour	2	2	0	0	2	2	4
	4:30-5:30		4:30-5:30		50%	50%	

Friday June 16, 2006

TIME	STAFF/DELIVERY		VISITORS		TOTAL		TOTAL
	In	Out	In	Out	In	Out	
7:30-7:45	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0
8:00-8:15	3	0	0	0	3	0	3
8:15-8:30	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0
Peak Hour	3	0	0	0	3	0	3
	8:00-9:00		8:00-9:00		100%	0%	
4:00-4:15	3	3	0	0	3	3	6
4:15-4:30	0	0	1	1	1	1	2
4:30-4:45	0	0	1	1	1	1	2
4:45-5:00	0	0	0	0	0	0	0
5:00-5:15	1	1	0	2	1	3	4
5:15-5:30	1	1	0	0	1	1	2
Peak Hour	3	3	2	2	5	5	10
	4:00-5:00		4:00-5:00		50%	50%	

Saturday June 17, 2006

TIME	STAFF/DELIVERY		VISITORS		TOTAL		TOTAL
	In	Out	In	Out	In	Out	
7:30-7:45	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0
8:00-8:15	3	0	0	0	3	0	3
8:15-8:30	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0
Peak Hour	3	0	0	0	3	0	3
	8:00-9:00		8:00-9:00		100%	0%	
4:00-4:15	3	3	0	0	3	3	6
4:15-4:30	0	0	0	0	0	0	0
4:30-4:45	0	1	0	0	0	1	1
4:45-5:00	0	0	0	0	0	0	0
5:00-5:15	0	1	0	0	0	1	1
5:15-5:30	0	1	0	0	0	1	1
Peak Hour	3	4	0	0	3	4	7
	4:00-5:00		4:00-5:00		43%	57%	