



Steve Ast
Hermosa Inn
5532 N Palo Cristi Road
Paradise Valley, AZ 85253

July 27, 2018

Dear Mr. Ast:

Addendum to Hermosa Inn Noise Study (11/17/06)

ACS has been asked to comment on the sound reduction improvements of the proposed new 10' high barrier wall for The Hermosa Inn (5532 N Palo Cristi Rd, Paradise Valley). The new wall is to help protect the neighboring property to the north.

There is an existing 7' high property line wall at this location. ACS has been informed that the grade is approximately 3' higher on the resident's side of the wall. This was included in the calculations.

The proposed new wall will be 10' high and closer to the noise sources – both of which will improve the sound reduction. As set forth in the 2006 noise study, ACS has calculated that the new wall will improve the sound reduction by more than a “clearly noticeable” amount.

Raising the proposed 10' wall by an additional foot would provide a virtually inaudible improvement. Even if the wall was raised to 13', the additional improvement would be classified as “barely noticeable” at the most.

Please let me know if you have any questions or need additional information.

Respectfully,

Tony Sola
Acoustical Consulting Services



Spring Creek Development
Mr. Fred Unger
7127 E. 6th Avenue
Scottsdale, AZ 85251

November 17, 2006

Dear Mr. Unger:

ACS has been asked to assess the potential noise impact from the proposed redevelopment of the Hermosa Inn to the surrounding neighborhood. The primary concern is the parking lot noise to the Swanson residence (the property to the north of the parking lot). As will be noted below, the proposed construction of a 10' wall between the proposed parking and a 20' landscape buffer will actually decrease parking related noise impacts from existing conditions.

TECHNICAL TERMS:

A-Weighted Sound Level - Sound pressure level, filtered or weighted at the various frequencies to approximate the response of the human ear.

dB - (decibel) A unit for measuring the intensity of sound. The human hearing range is from 0 dB (the theoretical threshold of audibility) to 130 dB (the average pain threshold).

Changes in Intensity Level, dB	Changes in Apparent Loudness
1	Almost imperceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud

FINDINGS:

The two primary noise concerns from the parking lot are: typical parking lot noise during the busy dinner hours and early morning deliveries.

Dinner Hour - **ACS** performed noise level measurements on Friday night (11/10/06) starting at approximately 7:00 pm. During this time, the minimum ambient noise level (from surrounding factors, not the Inn) was 44-48 dBA. Aircraft were 60 dBA.

Measurements were performed at the north side of the property in front of the oleander bushes. During the testing period there was virtually no measurable parking lot noise. (NOTE: The majority of the parking lot activity is controlled by valet.) To have useful measurements for calculation purposes, **ACS** measured "staged" parking lot noise. A vehicle was parking in the closest parking space to the north property line (adjacent to the existing herb garden).

Measurements were performed at the north end of the herb garden. The results were as follows:

Engine Start	Horn	Door Slam
52 dBA	71 dBA	59 dBA

Deliveries - **ACS** performed noise level measurements on Monday morning (11/13/06) starting at approximately 6:00 am. During this time, the minimum ambient noise level (from surrounding factors, not the Inn) was 46-48 dBA. Aircraft were 60 dBA. The measurements were performed at the north side of the property in front of the oleander bushes. During the testing period there was virtually no measurable parking lot noise except for the delivery truck. The results were as follows:

Engine Start	Idle	Door Close
63 dBA	59 dBA	55 dBA

NOISE IMPACT CALCULATIONS:

Potential noise impact levels were calculated for the existing and proposed conditions. The proposed scenario consists of keeping the oleander bushes and a ~20' buffer; and constructing a new wall on the south end of the buffer. (Please see attached diagram.)

Scenario	Wall Height	Dinner Time Parking Lot Noise			Morning Truck Delivery	
		Horn	Start	Door	Idle	Start
Existing	Existing (7')	55 dBA	45 dBA	53 dBA	55 dBA	59 dBA
Proposed	10'	40 dBA	35 dBA	44 dBA	47 dBA	52 dBA

OTHER NOISE CONTROL COMMENTS:

Vegetation - The existing oleanders create a sense of seclusion. However, they provide virtually no noise attenuation. The bushes can help to create natural sound masking (birds, leaves rustling), but this would be very intermittent.

"Trees and bushes are very poor noise barriers; they provide very little attenuation. ...if the foliage is dense enough to completely obstruct the view, ...there is some additional attenuation due to propagation through the foliage. The additional attenuation for propagation through each meter of dense foliage is given (below) for each octave band of frequency." (Handbook of Acoustical Measurements and Noise Control-Third Edition by Cyril M. Harris)

Hertz	31.5	63	125	500	1000	2000	4000	8000
dB/m	0.02	0.02	0.03	0.04	0.05	0.06	0.08	0.12

The existing oleanders are approximately 16' deep. By the chart above, they provide .6 dB (or less) of noise attenuation. This is not a perceptible reduction.

CONCLUSIONS:

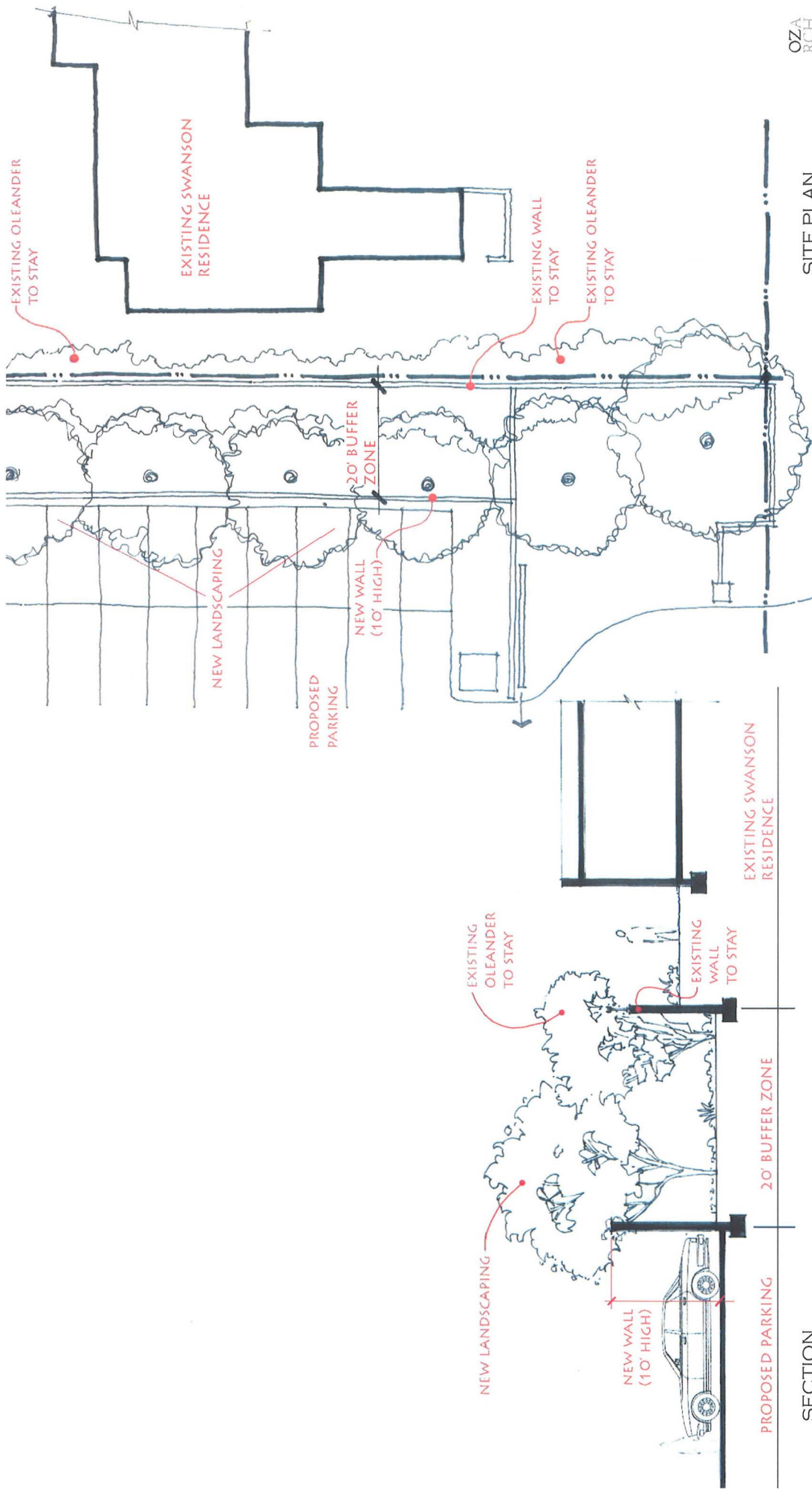
The proposed new wall will provide a clearly noticeable to dramatic noise level reduction for assessed noise sources.

If you have any questions or concerns, please call me at (480) 827-1007.

Respectfully,

A handwritten signature in black ink, appearing to read "Tony Sola", written in a cursive style.

Tony Sola
Acoustical Consulting Services



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SITE PLAN

THE
HERMOSA
INN
REMODEL

NOISE IMPACT STUDY

DATE: November 20, 2006

