



# City of Santa Barbara California

## STAFF HEARING OFFICER STAFF REPORT

**REPORT DATE:** July 16, 2015  
**AGENDA DATE:** July 22, 2015  
**PROJECT ADDRESS:** 504 E. Arrellaga Street (MST2015-00161)  
**TO:** Susan Reardon, Senior Planner, Staff Hearing Officer  
**FROM:** Planning Division, (805) 564-5470  
 Danny Kato, Senior Planner *DK*  
 Jo Anne La Conte, Assistant Planner *JAS*

### I. PROJECT DESCRIPTION

The 7,500 square-foot site is currently developed with three residential condominium units. The proposed project involves permitting an "as-built" air-conditioning unit within the required front setback facing Olive Street. This project will address violations identified in an Enforcement Case (ENF2014-00753). The discretionary application required for this project is a Front Setback Modification to allow the "as-built" air-conditioning unit to be located within the required 10-foot front setback (SBMC § 28.21.060 and SBMC § 28.92.110).

Date Application Accepted: June 4, 2015

Date Action Required: September 2, 2015

### II. RECOMMENDATION

Staff recommends that the Staff Hearing Officer approve the project, as submitted.

### III. SITE INFORMATION AND PROJECT STATISTICS

#### A. SITE INFORMATION

Applicant: Vanguard Planning	Property Owner: MacDonald Living Trust
Parcel Number: 027-760-001	Lot Area: 7,500 sq. ft.
General Plan: Medium High Density Residential (15-27 du/acre)	Zoning: R-3
Existing Use: Condominium	Topography: 11 % slope
Adjacent Land Uses:	
North – Residential	East - Residential/Office
South – Residential	West –Residential

**B. PROPOSED LOT AREA COVERAGE**

Building: 3,052 sf 41%      Hardscape: 971 sf 13%      Landscape: 3,477 sf 46%

**IV. DISCUSSION**

The project was reviewed by the Architectural Board of Review (ABR) on April 27, 2015, and was forwarded to the Staff Hearing Officer (SHO) with positive comments.

The proposed project involves permitting an “as-built” air-conditioning unit that is located approximately 6½ feet from the front property line facing Olive Street instead of the 10-foot required. The property is site constrained due to the location of the current development on site, and because it is located on a corner and has two required front setbacks. Also, the air-conditioning unit is not visible from the street as it is screened from view by an existing hedge and is located below an existing wall. The proposal will not reduce the required private outdoor living space or the required open yard area. In addition, an Acoustical Analysis by Jonathan V. Leech, INCE, (see attached Exhibit C) concluded that the compressor unit will comply with the City’s Noise Ordinance requirements.

Staff is in support of the requested modification because the air conditioning unit is not visible from the street, as it is screened by existing landscaping and a wall and because it is not anticipated to adversely impact the adjacent neighbor’s or the visual openness of the street frontage.

**V. FINDINGS AND CONDITIONS**

The Staff Hearing Officer finds that the Modification is consistent with the purposes and intent of the Zoning Ordinance and is necessary to secure an appropriate improvement on the. The air-conditioning unit is appropriate because it allows a desired amenity on a site that is constrained because of its location on a corner and because of the location of the current development. The air-conditioning unit is screened from view and will comply with the noise criteria outlined in the Santa Barbara Municipal Code and because the unit is not anticipated to adversely impact the adjacent neighbors or the visual openness of the street frontage.

Exhibits:

- A. Site Plan (under separate cover)
- B. Applicant's letter with attachments , dated June 4, 2015
- C. Acoustical Analysis from Jonathan V. Leech, INCE dated April 28, 2015
- D. ABR Minutes dated April 27, 2016

Contact/Case Planner: Jo Anne La Conte, Assistant Planner  
(JLaconte@SantaBarbaraCA.gov)  
630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5470 x3320



RECEIVED  
JUN 04 2015  
CITY OF SANTA BARBARA  
PLANNING DIVISION  
Page 1 of 3

June 4, 2015

Ms. Susan Reardon, Staff Hearing Officer  
City of Santa Barbara  
PO Box 1990  
Santa Barbara, CA 93102-1990

Hand Delivered

**RE: Modification Request for 504 East Arrellaga, APN 027-760-001, R-3 Zone**

Dear Ms. Reardon:

Vanguard Planning LLC (hereinafter "VPLLC") represents Karen MacDonald, Trustee of the MacDonald Living Trust 6-20-06 (the "Owner") the owner of the above referenced property (the "Subject Property"), a condominium within a three unit development located at the corner of Arrellaga Street and Olive Street. We are requesting a modification to Santa Barbara Municipal Code (the "SBMC") standards in association with a proposed project to permit a ground mounted HVAC compressor unit which serves the Subject Property to encroach within a required 10 foot front yard setback.

**1.0 BACKGROUND AND PROJECT DESCRIPTION**

The Subject Property is Unit #A of a three unit condominium development located on a 7,495 s.f. lot zoned R-3 in the Eastside neighborhood. The condominium project was approved in December 2004.

In the first half of 2014, the Owner hired a licensed contractor to install an HVAC system to serve the Subject Property. The Owner requested that the contractor obtain all required permits from the City for the installation, and was informed by the contractor that such permits had been obtained. Following completion of the work, Owner received notice from the City that a complaint had been received about the installation of the HVAC unit. An inspection was conducted on July 21, 2014 and Owner was verbally informed that the unit was installed without required permits, in violation of City ordinances.

Owner subsequently obtained an approval letter from the Homeowner's Association of the condominium development for the HVAC compressor installation. A copy of the approval letter, dated August 4, 2014 is included as **ATTACHMENT A** of this letter. Then, on August 14, 2014, Owner received a Notice of Violation (the "NOV") from the City informing Owner that an enforcement case had been opened seeking abatement of the violation(s) associated with the unpermitted HVAC compressor installation.

Owner's HVAC contractor initially attempted to address the NOV without success. VPLLC was retained to assist with this project in December of 2014 and immediately ran into difficulty due to the fact that archive plans for the approved condominium development, to use as a basis for required submittals to abate the identified violation(s), could not be located by City staff.

VPLLC ultimately retained a draftsman to re-create a complete, accurate site plan from scratch. The site plan and location of the as-built HVAC unit was submitted for design review by the Architectural Board of Review (the "ABR") on April 3, 2015. The ABR approved the as-built unit in its current location, without any additional conditions, at its April 27, 2015 consent hearing and authorized staff to complete the final design review for the project.

Staff Hearing Officer (hereinafter "SHO") review of the requested front setback modification is the final discretionary review requirement necessary prior to obtaining building permits to fully abate the violations associated with installation of this HVAC compressor.

## **2.0 REQUESTED MODIFICATION TO FRONT YARD SETBACK (SBMC Sec. 28.21.060.A.1)**

### *2.1 Proposed Modification is Necessary due to Unique Characteristics of Subject Property, and Location of Approved Development on the Subject Property*

The Subject Property is a corner lot with two front setbacks. The Subject Property is oriented so that its "front yard" faces Arrellaga Street and its "side yard" faces Olive Street. However, due to the corner lot location, a second front yard setback applies along the entire Olive Street frontage. The current location of the HVAC unit would comply with the standard R-3 6 foot interior setback but does not comply with the 10 foot front yard setback. However, the manner in which the Subject Property is developed makes this irrelevant. Two concrete block retaining walls approximately five feet tall, and set six feet apart occupy the space between the property line and the location of the HVAC unit. The area between these retaining walls is filled in with dirt to the full height of the walls and functions as a planter area within which mature screening vegetation is maintained. As a result, it is impossible for the public on Olive Street to see any portion of the HVAC compressor installed at its current location.

Additionally, the manner in which the 7,495 s.f. property has been developed with the approved three unit condominium project consistent with the 2004 City approval leaves no other suitable location for an HVAC compressor to be installed without substantially greater aesthetic and/or noise impacts to the public and surrounding residential properties. The only alternative locations where a compressor could be installed are: 1) the "front yard" between the Subject Property and Arrellaga street, where it would be readily visible in front of the structure; 2) the roof of the Subject Property, where it would be highly visible to the public and completely out of character with the Craftsman aesthetic of the project architecture; or 3) in the opposite side yard of the Subject Property, where the noise generated by the HVAC unit would directly impact the adjacent residential structure to the Northeast. An Acoustical Analysis performed by Dudek dated April 28, 2015 included with our application confirms that the existing HVAC unit, at its current location, is in full compliance with applicable City noise standards without the need for any additional mitigation measures.

### *2.2 Proposed HVAC Unit Location is Consistent with Previous Planning Commission Approval*

The location of the HVAC compressor does not conflict with any required common or private open space required as part of the 2004 Planning Commission approval for the condominium project that the Subject Property is a part of. The private open yard area for the Subject Property is identified as an area adjacent to the front porch of that unit, between the structure and Arrellaga Street on an exhibit attached to the 2004 Planning Commission Staff Report (see **ATTACHMENT B**). The entire condominium development project would continue to comply with all R-3 zone district requirements that were applicable to the 2004 City approval following approval of the HVAC compressor at its current location.

2.3 *Proposed Modification is Necessary to: 1) secure an appropriate improvement on a lot; 2) prevent unreasonable hardship; and 3) promote uniformity of improvement*

The requested modification to front yard setback will allow for installation of a typical modern climate control appliance to serve the Subject Property in a location that has no visual or noise impacts to any surrounding properties. As such, the HVAC compressor represents an appropriate improvement for this property.

As discussed above in Section 2.1, due to the manner in which the condominium project has been developed consistent with the City's 2004 approval, no other locations exist where an HVAC unit might reasonably be installed and/or could be approved by the City. All other technologically feasible locations would generate unacceptable aesthetic impacts and/or noise impacts to adjacent properties that would very likely result in disapproval by the City. Forcing the Owner to relocate the HVAC unit to a location that complies with setbacks, but where the unit would almost certainly be denied due to aesthetic and/or noise impacts represents an unreasonable hardship to the owner. Therefore the requested modification is necessary to avoid an unreasonable hardship.

Finally, the current location of the HVAC unit, although technically a "front yard" due to the unique corner location of the Subject Property, essentially functions as a side yard. Properties throughout the surrounding area typically have similar climate control appliances located in their side yards, rather than on roofs or in remaining front yards. The HVAC unit is also fully screened by two substantial retaining walls and existing mature landscaping. Retention of the HVAC equipment at its current location promotes uniformity of improvement.

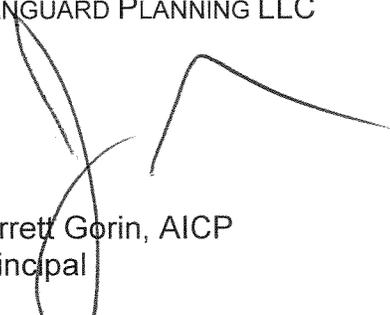
### 3.0 BENEFITS OF THE PROJECT

The project will allow for installation of a typical modern climate control system at a location on the Subject Property where it has no potential to generate visual impacts or noise impacts to the public or to any surrounding properties.

Thank you for taking the time to review this. If you have any questions, feel free to contact me via E-mail at [jarrett.gorin@vanguardplanning.com](mailto:jarrett.gorin@vanguardplanning.com) or at (805) 966-3966. I look forward to presenting our proposal in person at our hearing.

Sincerely,

VANGUARD PLANNING LLC



Jarrett Gorin, AICP  
Principal

### ATTACHMENTS

- A. Arrellaga and Olive Homeowner's Association, Inc. Letter dated August 4, 2014
- B. Site Plan Exhibit from December 2004 Planning Commission Staff Report

cc: Karen MacDonald (via E-mail)

## **ATTACHMENT A**

Arrellaga and Olive Homeowner's Association, Inc. Letter dated August 4, 2014

Arrellaga and Olive Homeowners' Association, Inc.

August 4, 2014

Re: Approval of Installation of Air Conditioning Unit for 504 E. Arrellaga St. Santa Barbara, CA

Dear Karen and Noel MacDonald:

This letter will serve as official notice that the Board of Directors of the Arrellaga and Olive Homeowners' Association, Inc. has approved both the location and the installation of the air-conditioning unit installed at your residence on 504 E. Arrellaga.

Please arrange for a City of Santa Barbara building permit to be issued as soon as possible.

If you have any questions, please contact me at 503 504 9420.

Sincerely,

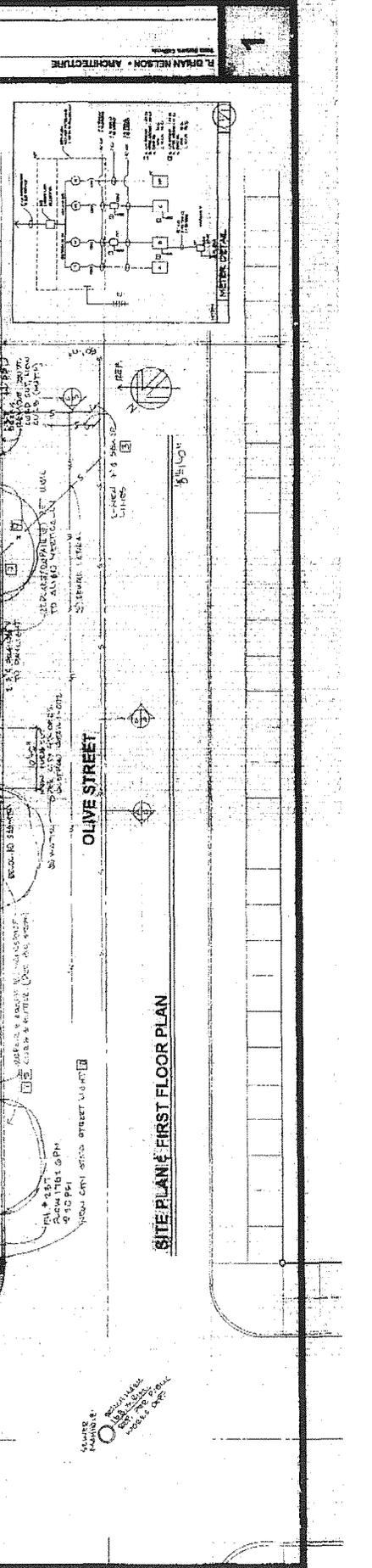
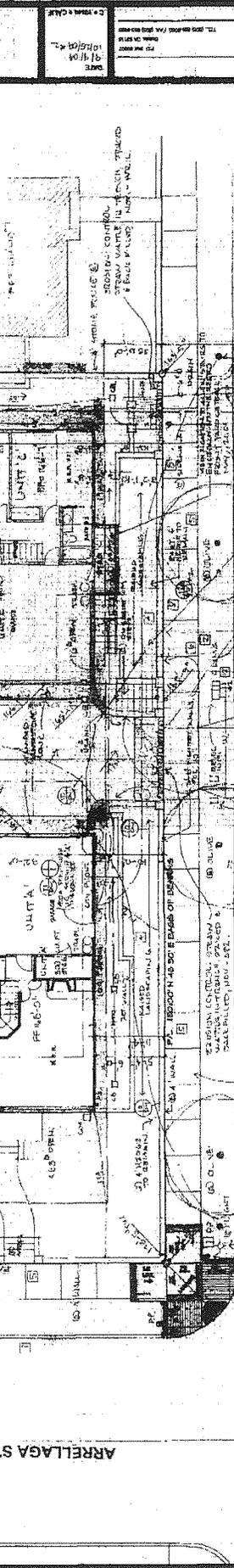
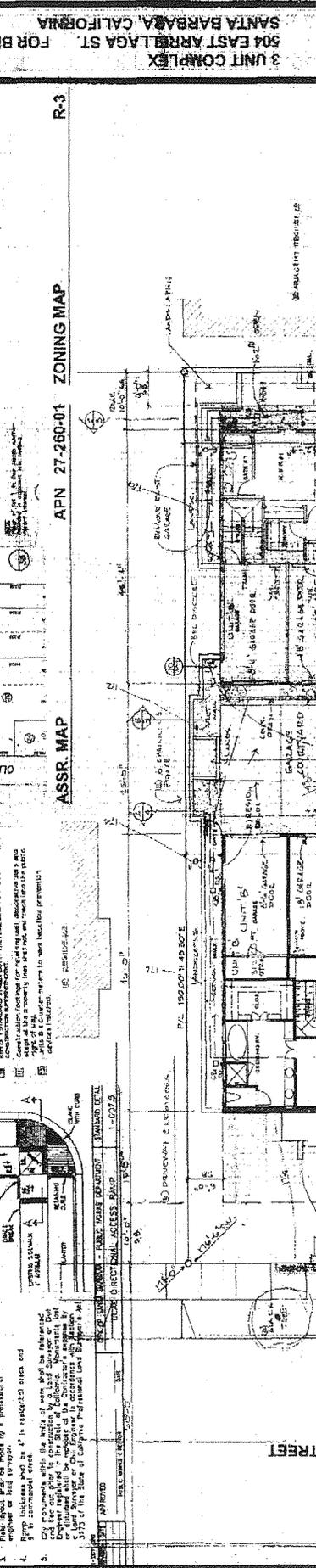
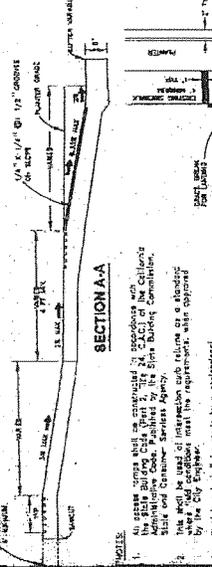
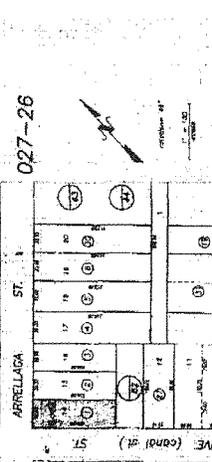
A handwritten signature in cursive script that reads "Raymond A. Link".

Raymond A. Link

President – Arrellaga and Olive Homeowners' Association Inc.

# **ATTACHMENT B**

Site Plan Exhibit from December 2004 Planning Commission Staff Report



**NOTES:**

- All items shown shall be constructed in accordance with the City of San Francisco Building Code and all applicable laws, rules, and regulations.
- The City Engineer shall be notified of any proposed changes to the plans.
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**SECTION A-A**

1. All items shown shall be constructed in accordance with the City of San Francisco Building Code and all applicable laws, rules, and regulations.

**SECTION B-B**

1. All items shown shall be constructed in accordance with the City of San Francisco Building Code and all applicable laws, rules, and regulations.

**DATE:** 10/10/04  
**BY:** [Signature]  
**PROJECT:** 3 UNIT COMPLEX  
**304 EAST ARRELLAGA ST. FOR BRIAN NELSON  
 SANTA BARBARA, CALIFORNIA**

**APR 27-260-01 ZONING MAP**  
**ASSR MAP**  
**R-3**

**027-26**  
**ARRELLAGA ST.**  
**OLIVE ST.**

**OLIVE STREET**  
**ARRELLAGA STREET**

**SITE PLAN & FIRST FLOOR PLAN**

**B. BRIAN NELSON - ARCHITECTURE**  
 171. 2000 16th Ave. #200  
 San Francisco, CA 94116  
 TEL: 415.774.8888 FAX: 415.774.8888  
 DATE: 10/10/04  
 DRAWN BY: [Signature]



**DUDEK**

477 CHAPALA STREET  
SANTA BARBARA, CALIFORNIA 93101  
T 805.963.0651 F 805.963.2074

April 28, 2015

Ms. Sarah Bronstad  
Vanguard Planning LLC  
735 State Street, Suite 204  
Santa Barbara, CA 93101-5502

**RECEIVED**  
JUN 04 2015  
CITY OF SANTA BARBARA  
PLANNING DIVISION

**SUBJECT: 504 East Arrellaga Street  
Air Conditioner Compressor  
Acoustical Analysis Results**

Dear Ms. Bronstad:

Dudek has completed an acoustic analysis of the existing air conditioner compressor unit installed at 504 East Arrellaga Street, in the City of Santa Barbara. The purpose of the analysis was to determine if the compressor unit sound emissions would meet the City Municipal Code requirements at nearby noise-sensitive land-uses (i.e., at the property boundary of the adjacent residence, at the property boundary of the residence across Olive Street, and at the property boundary of the residence across Arrellaga Street from the subject property).

This report presents a discussion of the Project Background and Vicinity Conditions (Section 1), Noise Criteria (Section 2), Compressor Sound Level Calculations Including Attenuation (Section 3), and Noise Ordinance Compliance Analysis (Section 4).

## **1. PROJECT BACKGROUND AND EXISTING CONDITIONS**

The property known as 504 East Arrellaga Street is developed with a single family residence. The residence is part of a 3-unit condominium development, with the other two units occupying a single structure on the southerly half of the property. The lot line between the subject residence and the common area for the development generally follows the southerly edge of the structural footprint for the subject residence. The subject residence is equipped with central air conditioning, supplied by a compressor located on the ground level, within the structural setback along Olive Street.

Refer to the attached *Site Plan* for the location of the compressor in relation to the subject residence. *Attachment 1* provides photographs illustrating the air conditioner compressor location. The distance from the compressor to the common area lot line is 45 feet. For this

**EXHIBIT B**

**Noise Study – 504 East Arrellaga Street, City of Santa Barbara**

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analysis, this boundary between the residence lot and the common area lot is treated as the property boundary between the subject residence and the adjacent condominium units at 1530 Olive Street. The two story residence forms a barrier on the easterly side of the compressor location, and there is a wooden planter two feet in height with mature hedge located between the compressor and the common area lot line.

The distance between the compressor and the residential property line across Olive Street (1535 Olive Street) from the subject property is 50 feet. A four foot high retaining wall, supporting an elevated planter area, is located between the compressor and Olive Street. Refer to *Attachment 1* for pictures of this stone retaining wall.

The distance between the compressor and the residential property line across Arrellaga Street (1600 Olive Street) from the subject property is 90 feet. A five foot high retaining wall, supporting an elevated planter area, is located between the compressor and Arrellaga Street.

With respect to 504 East Arrellaga Street, the specifications for the compressor are provided below, along with the sound power rating supplied by the manufacturer for the compressor. Refer to *Attachment 2* for the manufacturer specification sheets.

<b>TABLE 1</b> AIR CONDITIONER COMPRESOR DATA	
Make & Model of Compressor	Sound Level @ 9 feet (dBA)
Day & Night no. HC4A324AKA	73

**2. NOISE CRITERIA**

The City of Santa Barbara Noise Ordinance (Municipal Code Chapter 9.16) regulates the production of noise from mechanical equipment, where such mechanical equipment noise would have the potential to affect residential land uses. The following municipal code section is directly applicable to the compressor installation at 504 East Arrellaga Street.

- 9.16.025 Regulation of Noise Affecting Parcels Zoned or Used for Residential Purposes.
  - C. Noise Limitations. All mechanical equipment other than vehicles shall be insulated and sound at the property line of any adjacent parcel used or zoned for residential, institutional or park purposes shall not exceed sixty A-weighted decibels using the Community Noise Equivalent Level (60 dB(A) CNEL). All wind machines are prohibited in the City. (Ord. 4878, 1994.)

For the purpose of this analysis, we interpret that the project must not have operational noise levels at the nearest residential property lines which exceed 60 dB(A) CNEL, in order for compliance to be achieved.

### **3. NOISE CALCULATIONS**

Based on the sound power rating provided by the compressor manufacturer, we calculated the compressor noise levels at the closest residential property boundaries in each direction from the compressor location, except on the westerly side where the two story residence completely blocks sound transmission in that direction.

Sound attenuation due to distance, for a point source (which is applicable to the compressor) is calculated with the equation:

$$SPL_1 = SPL_2 - 20\log(D_2/D_1)$$

Where:

- SPL<sub>1</sub> is the calculated sound pressure level (in dB) at specified distance [D<sub>2</sub>]
- SPL<sub>2</sub> is a known (measured) sound pressure level at a known distance [D<sub>1</sub>]
- D<sub>1</sub> is distance from source to measured sound pressure level
- D<sub>2</sub> is distance from source to location of calculated sound pressure level

The calculation was performed for the compressor noise at the common area lot boundary of the subject residence, and at the property boundary for the residence across Olive Street (1535 Olive Street) and at the property boundary for the residence across Arrellaga Street (1600 Olive Street).

A second set of calculations was performed to evaluate attenuation from existing barriers between the compressor location, and each of the property boundaries described above. These calculations use an industry standard formula for sound barrier performance (known as insertion loss) which depends upon the relative location and elevation of the sound source, distance to the barrier, height of the barrier, elevation of the receiver, and distance from the barrier to the receiver.

Spreadsheets for the calculations are provided in *Attachment 3*. Results of the calculations are provided in *Table 2*, below.

<b>Table 2</b> Calculated Sound Level (Leq) dBA		
Location	Sound Level Absent Any Barrier	Sound Level with Existing Barrier
At Common Area Lot Boundary (1530 Olive Street)	59	50
Property Boundary Across Olive (1535 Olive Street)	58	45
Property Boundary Across Arrellaga Street (1600 Olive Street)	53	37

As indicated in Table 2, the calculated noise from air conditioner operation at the closest property (lot) boundary, is **50 dB(A) L<sub>eq</sub>** including the attenuation achieved by the existing planter which is located between the compressor and this lot boundary. The calculated air conditioner noise levels at the property boundaries across Olive Street and Arrellaga Street from the subject residential lot are even lower. Including the attenuation provided by existing barriers, the noise levels at the latter property boundaries are 45 and 37 dB(A) L<sub>eq</sub>.

#### **4. NOISE ORDINANCE COMPLIANCE ANALYSIS**

As discussed in Section 3, the operation of the compressor unit would result in a sound level of 50 dBA L<sub>eq</sub> at the closest neighboring property (lot) line. The compressor may not operate continuously over an hour-long interval. However, in order to evaluate the greatest potential noise level from the compressor, it was assumed the compressor would be in constant operation over a 24-hour period.

This assumption equates to operational noise with an hourly Leq of 50 dB(A) during each of the 24 one-hour periods of the day. *Attachment 4* to this report contains the calculation spreadsheet for determining the CNEL value, based upon an hourly average sound level of 50 dB(A) for each hour throughout the day. As indicated in *Attachment 4*, the calculated noise level at the closest residential property line for the continuous operation of the compressor unit, on a worst-case basis, is **57 dB(A) CNEL**.

The analysis conducted for this report indicates the noise level from the compressor at the nearest residential property (lot) line, including existing sound barrier, meets the City's Noise Ordinance maximum of 60 dBA CNEL noise criterion applicable to the project. The compressor is therefore in compliance with applicable portions of the Santa Barbara Municipal Code which govern noise levels from mechanical equipment upon residential land uses.

**Noise Study – 504 East Arrellaga Street, City of Santa Barbara**

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Should you have any questions regarding the above information, please do not hesitate to contact me at (805) 308-8527 or jleech@dudek.com.

Respectfully submitted,

**DUDEK**



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**JONATHAN V. LEECH, INCE**

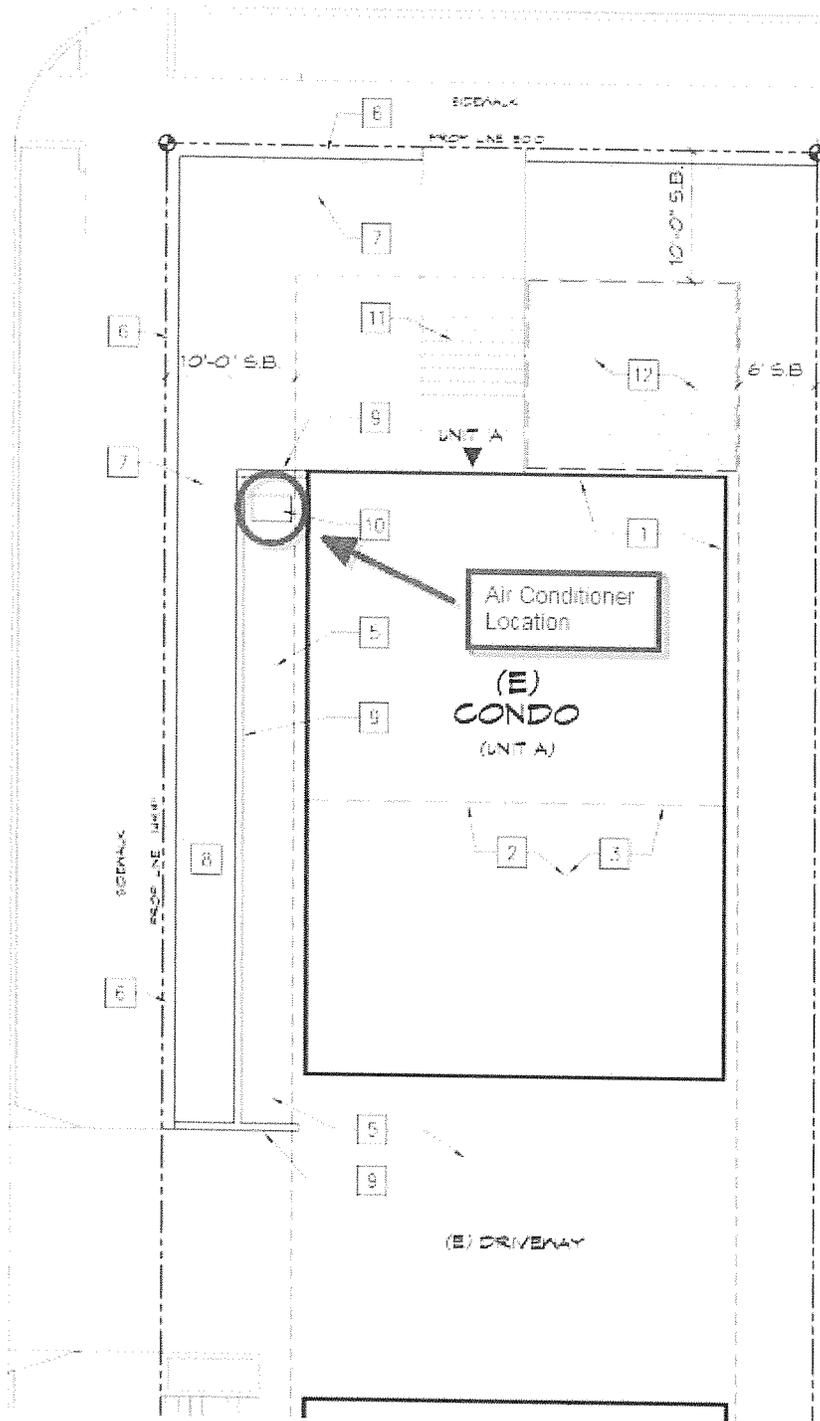
Senior Environmental Specialist / Acoustician

Encl.: Site Plan

- Attachment 1 - Photographs Documenting the Compressor and Existing Barriers
- Attachment 2 – Manufacturer Specification Sheets for Air Conditioner Compressor
- Attachment 3 – Sound Attenuation Worksheet
- Attachment 4 – CNEL Calculation Worksheet

EAST ARRELLEGA STREET

OLIVE STREET

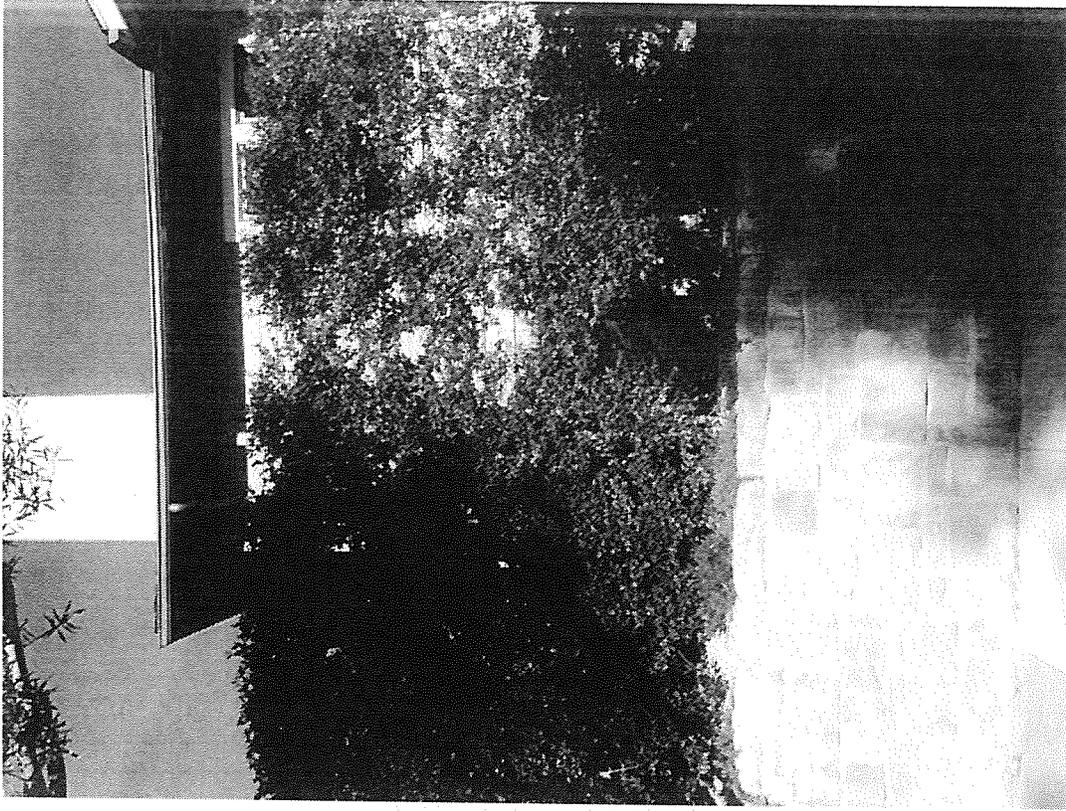


Site Plan Excerpt

Attachment 1  
Site Photographs



Looking toward Arrellaga Street, Olive Street is on other side of wall at left, Air Conditioner is behind planter



Looking from Olive Street, Air Conditioner is behind stone wall, about even with the front (left side) of the house



View of westerly façade of 504 East Arrellaga (looking from Olive Street). Air Conditioner is behind stone wall, even with left end of structure. Lot line for neighbor begins near the right end of the structure.

Attachment 2  
Manufacturer Specifications  
Air Conditioner Compressor

# HC4A3

## R-410A Ducted Horizontal Air Conditioner ENVIRONMENTALLY SOUND R-410A REFRIGERANT

1½ THRU 5 TONS  
208 / 230 Volt, 1-phase

### ENERGY EFFICIENCY

- 13 - 14.5 SEER/11 - 12 EER

### SOUND

- Levels as low as 70 dBA

### DESIGN FEATURES

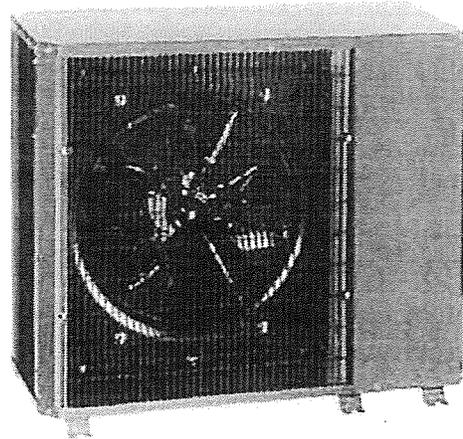
- Matched with ducted indoor units
- Ideal for multi-family use
- Small footprint "stackable"
- Weather-resistant cabinet
  - All steel cabinet construction
  - Baked on powder paint
  - Mesh coil guard

### RELIABILITY, QUALITY, AND TOUGHNESS

- Scroll compressor
- Factory-supplied filter drier
- Factory installed crankcase heater on 2½ through 5 ton models
- High pressure switch
- Line lengths up to 200 feet (61m) (see Long Line Application Guideline)
- 65 foot (20m) lift (see Long Line Application Guideline)
- Low ambient operation (down to -20°F/-28.9°C) with low ambient accessories
- Installation as close as 6 inches (25mm) from wall

### WARRANTY\*

- 5 year compressor limited warranty
  - 5 year parts limited warranty (including compressor and coil)
    - With timely registration, an additional 5 year parts limited warranty (including compressor and coil)
- \* For owner occupied, residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications



This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).

UNIT PERFORMANCE DATA					
Model Number	Voltage	Size (tons)	Nominal Btu/hr	Operating Weight lbs. (kg)	Notes
HC4A318AKA	208/230	1½	18,000	155 (70)	
HC4A324AKA		2	24,000	180 (82)	
HC4A330AKA		2½	30,000	200 (91)	
HC4A336AKA		3	36,000	218 (99)	
HC4A348AKA		4	48,000	284 (129)	
HC4A360AKA		5	60,000	294 (134)	

Specifications subject to change without notice.

# ELECTRICAL DATA

HC4A3 UNIT SIZE	V-PH-Hz	VOLTAGE RANGE*		COMPRESSOR		OUTDOOR FAN MOTOR			MIN CKT AMPS	FUSE/HACR BKR AMPS
		Min	Max	RLA	LRA	FLA	NEC Hp	kW Out		
18AKA1	208/230-1-60	187	253	9.0	48.0	0.80	0.125	0.09	12.1	20
24AKA1	208/230-1-60	187	253	12.8	58.3	0.80	0.125	0.09	16.8	25
24AKA2	208/230-1-60	187	253	13.5	58.3	0.80	0.125	0.09	17.7	25
30AKA1	208/230-1-60	187	253	14.1	73.0	1.5	0.25	0.19	19.1	30
36AKA1	208/230-1-60	187	253	14.1	77.0	1.5	0.25	0.19	19.1	30
36AHA1	208/230-3-60	187	253	9.0	71.0	1.5	0.25	0.19	12.7	20
36ALA1	460-3-60	414	506	5.6	38.0	0.80	0.25	0.19	7.8	15
48AKA1	208/230-1-60	187	253	21.8	117.0	1.5	0.25	0.19	28.7	50
48AHA1	208/230-3-60	187	253	13.7	83.1	1.5	0.25	0.19	18.6	30
48ALA1	460-3-60	414	506	6.2	41.0	0.80	0.25	0.19	8.6	15
48AKA2	208/230-1-60	187	253	19.9	109.0	1.5	0.25	0.19	26.4	40
48AHA2	208/230-3-60	187	253	13.1	83.1	1.5	0.25	0.19	17.9	25
48ALA2	460-3-60	414	506	6.1	41.0	0.80	0.25	0.19	8.4	15
60AKA1	208/230-1-60	187	253	26.4	134.0	1.5	0.25	0.19	34.5	60
60AHA1	208/230-3-60	187	253	16.0	110.0	1.5	0.25	0.19	21.5	35
60ALA1	460-3-60	414	506	7.8	52.0	0.80	0.25	0.19	10.6	15
60AKA2	208/230-1-60	187	253	26.4	134.0	1.5	0.25	0.19	34.5	60
60AHA2	208/230-3-60	187	253	15.0	110.0	1.5	0.25	0.19	21.5	30
60ALA2	460-3-60	414	506	7.8	52.0	0.80	0.25	0.19	10.6	15

\* Permissible limits of the voltage range at which the unit will operate satisfactorily

- FLA - Full Load Amps
- HACR - Heating, Air Conditioning, Refrigeration
- LRA - Locked Rotor Amps
- NEC - National Electrical Code
- RLA - Rated Load Amps (compressor)

NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

## SOUND LEVEL \*

Unit Size	Standard Rating (dB)	Standard Rating (dB) with Sound Jacket	Typical Octave Band Spectrum ( dBA ) (without tone adjustment)						
			125	250	500	1000	2000	4000	8000
18	70	69	51.5	56.5	63.5	62.5	60.5	57.0	45.5
			50.0	57.0	60.5	62.0	60.0	56.0	44.5
24	73	73	59.5	64.0	65.5	68.5	61.0	57.0	46.0
			56.0	64.0	66.0	69.0	62.5	58.0	47.5
30	74	74	58.5	62.0	65.5	66.5	66.5	65.0	58.0
			59.0	62.5	65.5	66.5	67.0	65.0	58.0
36	76	74	59.0	64.5	70.5	70.5	67.0	65.0	56.5
			59.0	63.0	64.5	69.5	66.5	64.5	56.0
48	74	73	63.0	64.5	67.5	67.5	65.5	63.0	55.0
			63.0	64.5	67.5	67.5	65.5	63.0	55.0
60	74	73	60.5	62.5	65.5	64.5	64.0	62.5	53.5
			60.5	62.0	65.0	64.0	63.5	62.0	53.5

## CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE-VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
18	12 (6.7)
24	12 (6.7)
30	12 (6.7)
36	12 (6.7)
48	12 (6.7)
60	12 (6.7)

\*\*Sound Rating tested in accordance with ARI Standard 270-95 (not listed with ARI).

Attachment 3  
Sound Level Calculation Worksheet  
Air Conditioner Compressor

504 East Arrellaga Street  
Air Conditioner Compressor Noise Analysis

Distance Attenuation Calculation, Standard Reference Distance

Unit #	Model #	Leq	Ref. Dist. (feet) - Manufact.	Standard Reference Distance (feet)	Noise Level (dBA Leq) at Std. Ref. Dist.
1	HC4A324AKA	73	9	50	58

Distance & Wall Condition References

Receiver Description	Distance	Wall / Barrier
Adjacent Condo - 1530 Olive Street	45 feet	2 foot high wooden planter box
House Across Olive - 1535 Olive	50 feet	4 foot high masonry retaining wall
House Across Arrellaga - 1600 Olive	90 feet	5 foot high masonry retaining wall

Distance & Barrier Attenuation Calculations

Receiver	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
1	58	5	2.6	45	0.5	44.5	0	2.0	0.28	9	59	50
2	58	5	2.6	50	0.5	49.5	0	4.0	0.84	13	58	45
3	58	5	2.6	90	0.5	89.5	0	5.0	1.71	16	53	37

Attachment 4  
CNEL Calculation Worksheet  
Air Conditioner Compressor



**CONSENT CALENDAR (1:00 P.M.)**

Items on Consent Review were reviewed by **Kirk Gradin** and **Courtney Jane Miller**).

**ABR - NEW ITEM**

**A. 504 E ARRELLAGA ST**

**R-3 Zone**

Assessor's Parcel Number:	027-760-001
Application Number:	MST2015-00161
Contractor:	Jose Perez
Owner:	MacDonald Living Trust
Applicant:	Vanguard Planning

(Proposal to permit an "as-built" air-conditioning unit within the required front yard setback facing Olive Street in a residential condominium development. This project addresses violations identified in Enforcement Case ENF2014-00753. Staff Hearing Officer review is requested for a zoning modification to encroach into the required front setback.)

**(Comments only; requires Environmental Assessment and Staff Hearing Officer review.)**

Present: Jarrett Gorin, Applicant for Vanguard Planning.

**Continued indefinitely to Staff Hearing Officer with positive comments:**

- 1) The project does not pose any public visual impacts and the modification can be supported.
- 2) The project is continued back to ABR Staff for Project Design Approval and Final Approval. Gradin/Miller, 2/0/0. Motion carried.