

Final EIR Introduction

This section has been changed subsequent to the public review of the February 2005 Draft EIR and the April 2008 Revised Draft EIR as follows:

1. This section was updated to reflect the County's current General Plan Noise Element policies and the County's current Noise Ordinance.
2. The Conclusions section was expanded to provide more explanation as to how impacts will be mitigated to a level less than significant.

2.4 Noise

This section summarizes the noise report prepared by Gordon Bricken & Associates for the proposed project (Gordon Bricken & Associates, 2004). The noise analysis is included as Appendix C to this EIR. The noise section identifies, describes, and evaluates noise sources and potential conflicts associated with the proposed project. This section analyzes the noise impacts generated by the proposed project, including both the short-term construction impacts and long-term operation impacts, and determines whether the proposed project would result in perceptible or significant increase in noise levels. These impacts are evaluated based upon the worst-case buildout of the allowed use.

2.4.1 Existing Conditions

2.4.1.1 Terminology and Methodology

Noise is often defined as unwanted sound because it can cause hearing loss, interfere with speech communication, disturb sleep, and interfere with the performance of complex tasks. Environmental noise is usually measured in A-weighted decibels (dBA). A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level"), measured in dBs. A dBA is a dB corrected for the variation in frequent response of the typical human ear at commonly encountered noise levels. In general, people can perceive a three dBA difference in noise levels; a difference of ten dBA is perceived as a doubling of loudness.

Community noise is generally not steady state and varies with time. Under these conditions of non-steady state noise, some type of statistical system of measurement is necessary in order to quantify human response to noise. Several rating scales have been developed for the analysis of adverse effects of community noise on people. These scales include Equivalent Noise Level (Leq), the Day-Night Average Level (Ldn), and the Community Noise Equivalent Level (CNEL).

Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the "energy" average noise level. Ldn and CNEL are similar to Leq, but are for 24 hours, and apply a weighting factor which places greater significance on noise events occurring during the evening and night hours (when sleeping disturbance is a concern). Ldn is a 24-hour, time-weighted average, obtained after the addition of five dB to sound levels between the hours of 7:00 p.m. and 10:00 p.m. and ten dB to sound levels between 10:00 p.m. and 7:00 a.m.

2.4.1.2 Sound Propagation and Attenuation

Each source of noise can be categorized as either a “line source” or a “point source.” For a “line source” of noise, such as a heavily traveled roadway, the noise level decreases by a nominal value of three dB for each doubling of distance between the noise source and the noise receptor. In many cases, noise attenuation is increased to 4.5 dB for each doubling of distance with the combined effects of environmental factors, such as wind conditions, temperature gradients, characteristics of the ground and the presence of vegetation.

In an area which is relatively flat and free of barriers, the sound level resulting from a single “point source” of noise decreases by six dB for each doubling of distance. This applies to fixed and mobile sources, which are temporarily stationary, such as an idling truck or other heavy duty equipment operating within a confined area, such as a construction site.

2.4.1.3 Existing Noise Regulations

The project area lies entirely within the County of San Diego and is therefore subject to regulation in accordance with the Noise Element of the San Diego County General Plan, the Ramona Community Plan, and the County Noise Ordinance.

A. General Plan Noise Element

The Noise Element of the San Diego County General Plan establishes general noise exposure standards for determining land use/noise compatibility in terms of CNEL. It also establishes comprehensive goals, policies, and actions to address noise problems in the County.

Goals: “Protect and enhance the County’s acoustical environment by simultaneously controlling noise at its source, along its transmission paths, and at the site of the ultimate receiver. First, priority shall be given to residential areas to assure an environment free from excessive or damaging noise. Control of noise at its source shall be given priority over changes to residential structures or neighborhoods where practical.”

In particular, the Noise Element includes Policy 4b with the following provisions:

Policies: “Because exterior community noise equivalent levels (CNEL) above ~~55 to 60~~ 60 decibels (dBA) and/or interior CNEL levels above 45 decibels dBA may have an adverse effect on public health and welfare, it is the policy of the County of San Diego that:

- 1. Whenever it appears that new development may result in any (existing or future) noise sensitive land use being subject to noise levels of CNEL equal to 60 decibels (A) or greater, an acoustical analysis shall be required.*
- 2. If the acoustical analysis shows that noise levels at any noise sensitive land use will exceed CNEL equal to 60 decibels, modifications shall be made to the development which reduce the exterior noise level to less than CNEL of 60 decibels (A) and the interior noise level to less than CNEL of 45 decibels (A).*

3. If modifications are not made to the development in accordance with paragraph 2 above, the development shall not be approved unless a finding is made that there are specifically identified overriding social or economic considerations which warrant approval of the development without such modification; provided, however, if the acoustical study shows that sound levels for any noise sensitive land use will exceed a CNEL equal to 75 decibels (A) even with such modifications, the development shall not be approved irrespective of such social or economic considerations.

~~Whenever possible, development in San Diego County should be planned and constructed so that noise sensitive areas are not subject to noise in excess of CNEL equal to 55 dBA.~~

~~Whenever it appears that new development will result in any (existing or future) noise sensitive area being subjected to noise levels of CNEL equal to 60 dBA or greater, an acoustical study should be required.~~

~~If the acoustical study shows that noise levels at any noise sensitive area will exceed CNEL equal to 60 dBA, the development should not be approved unless the following findings are made:~~

- ~~a. Modifications to the development have been made or will be made which reduce the exterior noise level below CNEL equal to 60 dBA.~~
- ~~b. If with current noise abatement technology it is infeasible to reduce exterior CNEL to 60 decibels then modifications to the development have been or will be made which reduce interior noise below CNEL equal to 45 decibels. Particular attention shall be given to noise sensitive interior spaces such as bedrooms.~~
- ~~c. If finding “b” above is made, a further finding is made that there are specifically identified overriding social or economic considerations which warrant approval of the development without modification as described in “a” above.~~

~~If the acoustical study shows that noise levels at any noise sensitive area will exceed CNEL equal to 75 decibels, the development should not be approved.~~

Policy 4b defines “Development” as any physical development, including, but not limited to, residences, commercial, or industrial facilities, roads, civic buildings, hospitals, schools, airports, or similar facilities. Policy 4b defines “Noise Sensitive Land Use Area” as ~~the building site of~~ any residence, hospital, school, hotel, resort, library, or any other similar facility where quiet is an important attribute of the environment. Compliance with the Noise Element ensures that internal and external noise levels at any noise sensitive area of the project will not reach levels that would be unhealthy.

B. Ramona Community Plan

The Ramona Community Plan, Part XIV of the San Diego General Plan, provides policies and recommendations regarding noise for development in the community of Ramona. The applicable policies and recommendations pertinent to noise are as follows:

Goal: “Provide adequate control of noise sources in the planning area to maintain an environment free of excessive and damaging noise to all residents.”

Policies: Single-family residential development will not be permitted in areas that have close proximity to airports or major roads, where projected noise levels are greater than 55 decibels (dB[A]), without adequate mitigation measures.

C. County Noise Ordinance

The County of San Diego Noise Ordinance establishes the property line sound level limits. Compliance with the Noise Ordinance ensures that noise generated by the project will not be disturbing, excessive, or offensive when measured at the property line. The Noise Ordinance specifies in Section 36.404 “General Sound Level Limits” that unless a variance has been applied for and granted, it shall be unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits listed on Table 2.4-1. The proposed project is located in an area zoned A-70, therefore the maximum one-hour average sound level is 50 dB(A) from 7:00 a.m. to 10:00 p.m. and 45 dB(A) from 10:00 p.m. to 7:00 a.m.

Section 36.404 of the Ordinance has a construction provision that allows the noise levels at the property line of residential uses to be as high as 75 dBA Leq for as long as eight hours in any 24-hour period, providing the construction takes place between 7:00 a.m. and 7:00 p.m.

There is no general provision for the use of sound amplifying equipment. One section limits such equipment when used in a County Park and another requires a permit for sound equipment mounted on trucks. Although the County Noise Ordinance does not enumerate any specific prohibition that would be applicable to these proposed facilities, sound amplification is not to exceed the regulatory limits set forth in Section 36.404 as reproduced in Table 2.4-1.

2.4.1.4 Existing Noise Levels

The project area is sparsely populated with scattered housing. The area’s anthropogenic, or human caused, sound levels are generally produced by the roadways and aircraft over-flights from Miramar Marine Corps Air Station (MCAS Miramar). A measurement was made on the site which can be considered representative of the area’s sound levels (Exhibit 4 in Appendix C). The reading taken at 75 feet from the centerline of Mussey Grade Road, was a ten minute average of 67 dBA Leq, with five cars and one heavy truck during the period. There was a substantial contribution to the average sound level due to aircraft activity from MCAS Miramar. The traffic count was used to compute the highway noise component alone. The hourly noise level was calculated at 59 dBA Leq.

A 24-hour measurement was taken at the same location. The maximum and average levels are fairly constant from 7:00 a.m. to 8:00 p.m., and reach a minimum from 2:00 to 3:00 a.m. This pattern is consistent with sound levels that are produced by road traffic. The 24-hour CNEL value was 57 dBA. There was an hour at approximately 1:00 p.m. when the maximum of the 24-hour sample equated to the maximum of the short-term measurement (95 dBA). The cause of this event was likely an aircraft over-flight. However, the 24 hour sample suggests that such direct over-flights are not common.

Another way to analyze the data is to examine the statistical distribution of the levels. During the day, the average level is approximately 53 dBA Leq. Nearly half of the daytime, the average level is below 40 dBA; and roughly twenty-five percent of the time, it is above 50 dBA. At night, the average level is 39 dBA Leq ninety-nine percent of the time. One of the functions of the measurements is to help develop a traffic noise model based on the CNEL metric. The existing traffic volume for the segment of the road to which the measurements apply is Mussey Grade Road south of Dos Picos Park Road. The existing Average Daily Traffic (ADT) on this portion of Mussey Grade Road is 850 vehicles. Several trials were carried out for the daily traffic distribution and the values found to produce a reasonably accurate match to the 24-hour measurements. The result is 58.3 dBA CNEL at 75 feet from the centerline of Mussey Grade Road. The measured value was 59 dBA CNEL.

2.4.2 Thresholds of Significance

When evaluating noise related issues of a proposed project, the project normally would have a significant effect on the environment if it would *increase substantially the ambient noise levels for adjoining areas*.

The site is zoned A-70, Limited Agriculture, as are all adjacent areas within the project vicinity. The applicable County Noise Ordinance limits are 50 dBA Leq during the day and 45 dBA Leq during the evening. In addition, the proposed project would result in a significant noise impact if it would exceed the allowed noise limit for sensitive avian habitats which is an average level of 60 dBA Leq for one hour, or violate the policies and recommendations of the Ramona Community Plan.

According to historic noise studies, an increase of one dBA cannot be perceived; a three dBA increase is considered a just-noticeable difference. Additionally, a change of at least five dBA is required before any noticeable change in community response would be expected. Therefore, the industry-accepted threshold of significance for an area that already exceeds the applicable standards is determined by the “measurable change,” defined as a change of three dBA or greater.

It is also common in Environmental Noise Studies to identify a minimum threshold of significant change. It is generally agreed that three dBA is the minimum significant increase for wide band sound sources, where sound alone is the only sensory input. Considering the fact that a three dBA CNEL increase could be equivalent to a doubling of traffic volumes, it would appear that three is a reasonable figure to employ as the threshold of significance. On average, a three dBA CNEL change appears to be a reasonable measure of significance for this study.

2.4.3 Analysis of Project Effects and Determination as to Significance

2.4.3.1 Traffic

A. Off-Site Traffic

Linscott Law & Greenspan Engineers assumed worst-case project traffic volumes (Appendix E). Based on the project-related traffic volumes illustrated in EIR Chapter 6, roadway noise levels were calculated for existing plus project. CNEL values at 50 feet were calculated at 59.5 CNEL on Mussey Grade Road south of

Dos Picos Road, while the 60 dBA contour locations relative to the roadway centerline is 45 feet on Mussey Grade Road south of Dos Picos Road.

Based on the calculated noise levels, the 60 dBA CNEL contour at the project site is less than 50 feet from the centerline of Mussey Grade Road. Adding the project-generated traffic to the existing traffic does not change the location of the 60 dBA CNEL contour. There is no impact from the existing traffic nor from the existing plus project traffic (Appendix C).

Since the proposed project would not result in more than a three dBA CNEL change, impacts from off-site noise sources would not be significant. Therefore, implementation of the proposed project would not produce significant noise impacts due to roadway traffic and road noise.

B. On-Site Traffic

For the purpose of the noise analysis, the worst case scenario of 275 project-related ADTs at full buildout of the proposed project was used for this noise analysis. The relevant noise condition is the hourly average noise level since the on-site traffic is subject to the Noise Ordinance. There would be approximately 92 vans and 40 cars. Table 2.4-2 shows the on-site traffic maximum hourly average noise levels at property line boundaries depicted in Figure 2.4-1. All noise levels would be below the County Noise Ordinance limits of 45 (night) and 50 (day) dBA, therefore, on-site traffic-related noise impacts to off-site properties would be less than significant.

2.4.3.2 Construction Noise

Noise associated with the earthwork, construction and surface preparation of the Salvation Army Divisional Camp and Retreat would result in short-term impacts. Construction noises are expected to occur during daylight hours on weekdays, when residential noise sensitivity is generally lower than during morning and evening hours and on weekends. A variety of construction equipment would be used, including but not limited to, scrapers, graders, rollers, and jack-hammers. Based on the noise report, a compactor/grader would have a sound level of 95 dBA Leq at 50 feet. The level at any point in time would vary as the equipment moves back and forth across the grading area. For example, the compactor grader that has a maximum level of 95 dBA at 50 feet would likely produce an hourly average level of 79 dBA Leq. The County's Noise Ordinance, Section 36.410, directs that construction noise levels not exceed 75 dBA for more than eight hours at the boundary of any residential property.

Impact Use of construction equipment within 125 feet of the camp property line could create noise levels that would exceed the County Noise Ordinance limit of 75 dBA for more than eight hours at the boundary of residential property. Because construction activities generally occur for long periods of time, i.e. an eight-hour day, on-site construction activities have the potential to exceed the County Noise Ordinance limit and therefore result in a significant noise impact.

2.4.3.3 On-Site Noise

The site contains a number of outdoor activity centers and mechanical equipment locations that would produce noise. These include:

- speech and music from the three outdoor meeting areas;
- air conditioners and miscellaneous equipment for the housing, dining, cabins, and Retreat Center;
- human activity noise from the sports facilities and tennis courts;
- maintenance yard equipment operation; and,
- voice activity from bus drop-off area.

Table 2.4-3 shows the list of on-site noise sources and referenced noise levels. Table 2.4-4 lists the projected average hourly sound level from the proposed project at the property line and at nearby residences. The projections are based on a point source model, and are based on “hard” site condition. A “hard” site condition was analyzed to portray the worst case condition because it does not account for terrain shielding or shielding by structures. Note that many locations would have lower noise levels than discussed herein due to these factors.

The proposed project structures will not be exposed to roadway noise (on-site and off-site) that would exceed 60 decibels. Additionally, on-site noise generated by proposed activities and mechanical equipment would not generate noise levels in excess of County standards at proposed on-site building locations. Where property line noise levels have been identified (two locations) that may exceed County Noise Ordinance sound levels limits, mitigation is required, and noise will be attenuated to acceptable levels pursuant to the County Noise Ordinance. Therefore, the project is consistent with County Noise Element, Policy 4b.

The project will not be classified as a residential development under the Community Plan nor would it be located within the 55 dBA contour near any main road, airport or other source. Therefore, it is in compliance with the directive of the Ramona Community Plan Noise Element to permit residential development within projected CNEL contours of 55 dBA near main roads, airports or other sources only when noise impacts can be mitigated. The project does not propose any sensitive receptors within the projected noise contours exceeding 55 dBA and, therefore, the project is in compliance with the Ramona Community Plan Noise Element directive that new development proposed within the projected noise contours exceeding 55 dBA will require buffering or other mitigation devices to return the ambient noise level to 55 dBA and does not require any mitigation or buffering pursuant to the Element.

The measures will also serve to keep the noise levels of the individual Activity Areas under the daytime limit of 50 dBA Leq. These Activity Areas are essentially just daytime uses. The cumulative of all Activity Areas exceeds 50 dBA Leq in some locations. However, it is not likely all the areas would be in use at the same time. The HVAC units could all be operated at the same time and at nighttime as well. The individual and total noise levels do not exceed the nighttime limit of 45 dBA Leq.

Impact Most of the values shown in Tables 2.4-4 and 2.4-5 do not exceed the day limit of 50 dBA Leq.
2.4.b However, at some off-site locations, noise levels would exceed 50 dBA when amplification equipment is used at the presentation areas. The amplification equipment used in the three presentation areas would be projected toward the front of each stage. More specifically,

presentation area one faces to the west and presentation areas two and three face to the south. The other noise sources would not exceed the 50 dBA Leq limit. The noise levels listed in Tables 2.4-4 and 2.4-5 do not include any terrain shielding, structure shielding or excess atmospheric attenuation. Excess attenuation does not affect propagation until distances exceed 1,000 feet, and therefore, noise levels are a worst case analysis and will likely be less than shown. However, when amplification equipment is used, noise impacts from the presentation areas to off-site receptors would be significant.

All living quarters, dining and multi-purpose buildings would have permanently installed air conditioning equipment, with Sound Power Ratings of 91, 93, 96 and 70 dBA, based on the mechanical plan (sheet 9). This is equivalent to the American Refrigeration Institute (ARI) rating of 9.1, 9.3, 9.6 and 7.0 Bels, respectively or a level of 62 dBA at 50 feet. The off-site properties are located to the north and east of the project site and could potentially be exposed to noise levels from project air conditioning units. Figure 2.4-2 shows the location of the project components that would utilize air conditioning units and that may affect the off-site receptors. Table 2.4-6 lists the projected average noise level at property lines and at adjacent residences with on-site HVAC unit use.

Impact Based on a worst-case analysis that does not include terrain and structure shielding or excess
2.4.c attenuation and with all on-site air conditioners working at the same time, the 45 dBA Leq noise standard would be exceeded at two locations (Table 2.4-6).

In addition to the HVAC equipment, there would be pool pumps and heaters at the pool areas, exhaust fans for the kitchen area of the dining facility and a compressor at the dining facility. The exhaust fans would be rated at 12 Sones, or less, per the Air Control and Movement Association's procedures and would result in 27 dBA to the closest noise receptor, receptor number one. All permanent pool pumps shall be within an enclosure. Enclosures shall be light tight and constructed of any material with a minimum surface weight of 3.5 pounds per square foot. Doors, hatches and other openings shall have full perimeter weather-stripping. The enclosure shall be constructed so that the sides and top are no closer than two feet to any portion of the pump. The enclosure shall have a minimum Sound Transmission Class rating of 40 and a ventilation fan rating not to exceed 15 Sones. The surface area for each intake and exhaust openings will not exceed ten percent of their respective total surface area. Pools pumps and enclosures designed according to the previous specifications would result in sound levels of less than one decibel at the nearest off-site receptors, receptors two and three. A 60 dBA compressor would be installed in the dining facility, however the resulting noise level at the nearest off-site receptor, location one, would be less than one decibel. All off-site receptor noise levels at the project's property line resulting from these equipment types would be within County Noise Ordinance limits, therefore, impacts would be less than significant.

Table 2.4-7 shows potential noise sources from the maintenance yard and noise levels at the project's property line receptors surrounding the project site. The maintenance yard will use various types of equipment to clear brush and perform landscaping. In addition, maintenance such as parking lot sweeping/cleaning, swimming pool and ball field maintenance will be conducted. Maintenance noise is analyzed by addressing the hours of use and the likelihood that a full hour in any one location would

occur. Table 2.4-7 gives the distances where each piece of maintenance equipment would result in a significant noise impact.

Impact 2.4.d Analysis based on the distances in Table 2.4-7 and the proposed landscaping plans have concluded that maintenance from the operation of the bush trimmer and lawnmower in the landscaped area to the north of the Retreat Center would result in noise levels of 68 and 64 dBA, respectively. In addition, operation of the street sweeper and/or bush trimmer in the proposed overflow parking lot, located to the south of the existing landfill, within the distances given in Table 2.4-7, would result noise levels of 59 and 73 dBA, respectively. Therefore, potentially significant noise impacts would occur from the operation of some maintenance equipment.

Trash would be collected weekly and dumpsters would be placed at a majority of the buildings, except some of the cabin clusters would share a collective bin. Deliveries would occur sporadically and would vary considerably depending on the camp capacity and time of year. On average, it is expected that there would be approximately one delivery a day. Since the refuse collection and delivery activities would not occur within 100 feet from the property lines, pursuant to Major Use Permit approval (Section 1.1.1.2), noise levels would be below the County Noise Ordinance threshold of 50 dBA at adjacent property lines. All deliveries and refuse collection activities would occur between 6 a.m. and 10 a.m. and would comply with County sound level limits per County Noise Ordinance Sections 36.407 and 36.404. Therefore, delivery and refuse activities would not create a significant impact.

2.4.3.4 *Avian Habitats*

Figure 2.4-3 shows the general areas of sensitive biological habitat, including Diegan Coastal Sage Scrub, Coastal Sage-Chaparral Scrub and Southern Coast Live Riparian Woodland. These areas are habitable by sensitive avian species; i.e. scrub provides habitat for the federally endangered California Gnatcatcher. Although protocol surveys were conducted for the Gnatcatcher and none were identified on-site and no other threatened or endangered avian species inhabit the site, the noise study analyzed potential noise effects as a worst case analysis. As shown on Figure 2.4-3, sensitive avian habitats are near the proposed staff housing, multi-purpose facility, dining facility, maintenance yard, and retreat center areas. Habitats near these development areas would be exposed to air conditioning noise from these buildings and maintenance noise. A representative example of the HVAC noise occurs at the staff housing buildings, as these units are among the highest noise-producing of the units proposed (Sound Power Level of 91 DBA each), will be located at grade, and there will be two units operating simultaneously at each building. At 100 feet, which will be the fire clearing distance around all new buildings, these combined units would produce an average sound level of 54 dBA Leq., below the significance threshold of 60 dBA at sensitive habitats. Therefore, noise impacts of the HVAC units on sensitive species that could inhabit the site would be less than significant.

Some habitats are near the internal road and would be exposed to roadway noise. The peak noise level is calculated at 54.1 dBA Leq, which would be less than the allowable 60 dBA Leq ambient noise level, at 50 feet from the roadways adjacent to sensitive biological habitat. Therefore, roadway noise impacts on surrounding avian habitat would be less than significant. Maintenance activities will be required around all

buildings for fire clearance. Some of these areas will be near habitat that has potential to support sensitive avian species. However, because such maintenance/landscaping equipment is not static (i.e., a trimmer would not be operated in the same location for extensive periods of time), would only be used periodically and for relatively short periods of time, impacts would be less than significant.

Impact 2.4.e Construction operations may exceed 60 dBA near avian habitats. Because construction activities could occur for long periods of time in a relatively static location, such activities could result in significant noise impacts to sensitive avian species.

2.4.4 Mitigation Measures

The following measures are recommended to mitigate potentially significant noise impacts:

MM 2.4.a All construction activities shall require the use of temporary sound barriers for operations within 125 feet of any project boundary. Such sound barriers shall be a minimum of eight feet in height. The noise level reduction shall be a minimum of five dBA. Barriers shall be located between the source and the property line at a maximum of 40 feet from the source. Where grading activities occur within 40 feet of the property boundary, the grading plans shall include restrictions that limit the grading to a maximum duration of 24 minutes in an hour.

MM 2.4.b The use of sound amplifying equipment as defined by the County Code section 36.402 at any outdoor location is prohibited. All indoor activities involving the use of sound amplifying equipment shall comply with the noise limits defined in the County Noise Code section 36.404.

MM 2.4.c All residential air conditioning units at the Retreat Center (HP3) shall have a Sound Rating of 7.0 Bels, or less per American Refrigeration Institute (ARI) test procedure. Units designated HP1 shall not exceed a Sound Rating of 9.3 Bels; units designated HP2 shall not exceed a sound rating of 9.5 Bels and units designated CU1 and CU2 shall not exceed a sound rating of 8.9 Bels.

With implementation of these measures, all air conditioner noise levels at property boundaries would be within County Noise Ordinance limits.

MM 2.4.d The Salvation Army Procedures Manual shall include the Special Notice identified in Figures 2.4-4a through 2.4-4c. When performing maintenance activities within potential noise violation areas, maintenance shall be restricted to non-motorized tools. Signs, in both English and Spanish, shall be posted at the potential noise violation areas restricting the use of motorized maintenance equipment. A Special Notice, identifying potential noise violation areas and restricting the use of motorized equipment within such areas, shall be discussed with and provided to any contracted maintenance crews. This notice shall be posted in locations explicitly visible to all maintenance crews.

Point source maintenance noise impacts would be lowered to below a level of significance with implementation of the above mitigation measures.

- MM** Construction activities shall be prohibited during the California gnatcatcher 'breeding season
2.4.e (March 1 - ~~July 1~~August 15) unless nest monitoring is conducted by a qualified biologist and results indicated the absence of active nests or the completion of the breeding season.

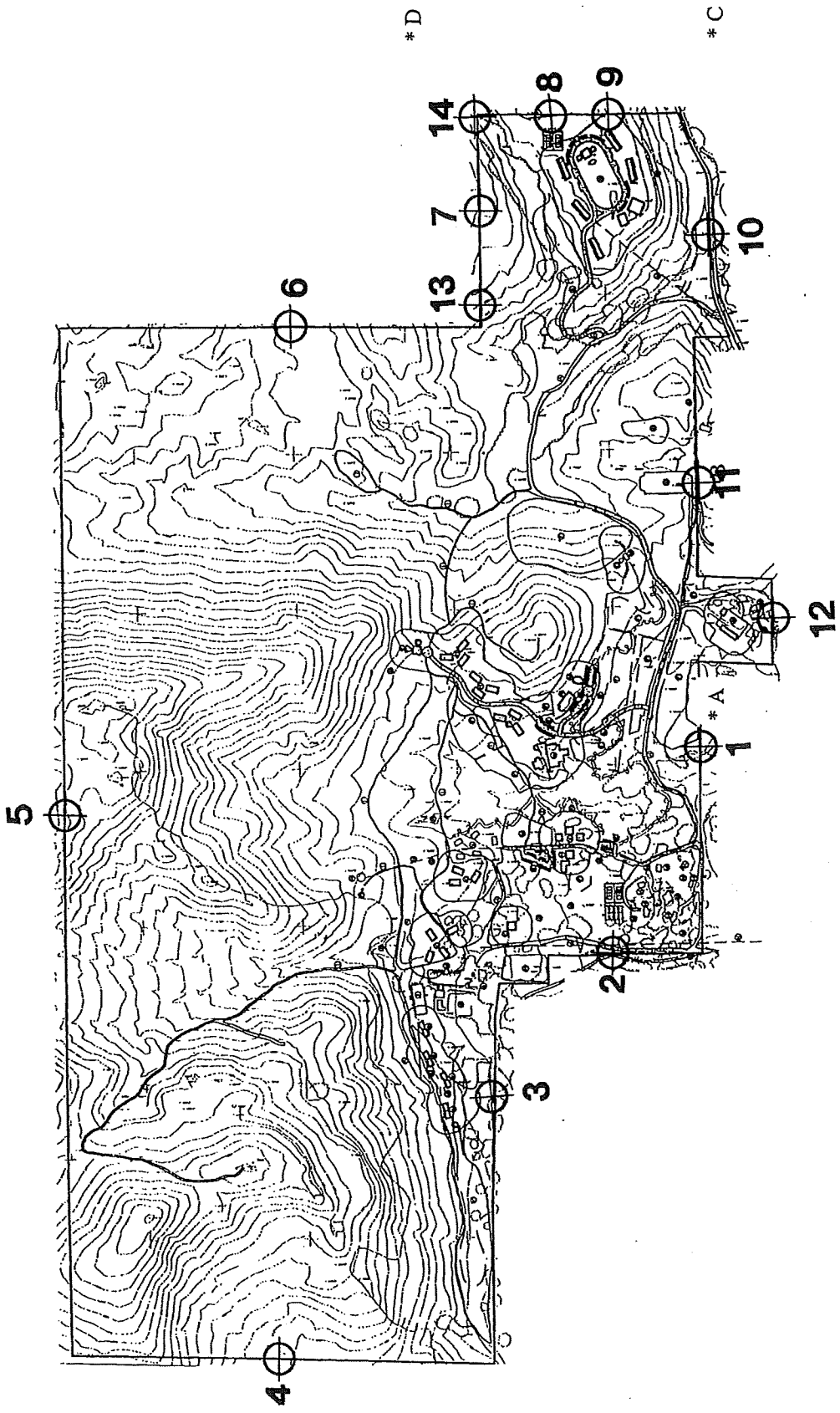
2.4.5 Conclusions

The proposed project would result in potentially significant noise impacts associated with construction noise, on-site noise sources, including activities from outdoor meetings, air conditioner noise, and major maintenance. ~~Noise levels with implementation of the mitigation measures are provided in Tables 2.4-8 and 2.4-9. As demonstrated in these tables, implementation of the mitigation measures specified above would reduce noise levels to a level in conformance with all relevant noise regulations. Mitigation Measure 2.4.a requires the use of temporary sound barriers for operations within 125 feet of any project boundary. Where grading activities occur within 40 feet of the property boundary, the grading plans will include restrictions that limit the grading to a maximum duration of 24 minutes in an hour. Implementation of this mitigation measure will ensure that potential construction noise impacts will comply with applicable noise regulations designed to control disturbing, offensive and excessive noise.~~

Mitigation Measure 2.4.b prohibits the use of sound amplifying equipment as defined by County Code section 36.402 at any outdoor location. All indoor activities involving the use of sound amplifying equipment will also comply with the noise limits defined by County Code section 36.404. Implementation of this mitigation measure substantially lessens the significant effect because use of outdoor sound amplification equipment is prohibited, and use of indoor sound amplification equipment is restricted.

Mitigation Measure 2.4.c requires all residential air conditioning units used on the project site (HP3, HP2, and HP1) to have Sound Ratings equal to or less than the Sound Rating numbers listed in the mitigation measure. These sound ratings are specified by the American Refrigeration Institute (ARI) test procedure. Implementation of this mitigation measure substantially lessens the significant effect because the air conditioners will comply with industry sound level standards and meet the County Noise Ordinance standards at the property line.

Mitigation Measure 2.4.d requires the Salvation Army Procedures Manual to include the Special Notice identified in Figures 2.4-4a through 2.4-4c. Signs, in both English and Spanish, will be posted at the potential noise violation areas restricting the use of motorized maintenance equipment. A Special Notice, identifying potential noise violation areas and restricting the use of motorized equipment within such areas, will be discussed with and provided to maintenance crews. This notice will be posted in locations that are visible to all maintenance crews. Implementation of this mitigation measure substantially lessens the significant effect because use of the maintenance equipment would be restricted in certain areas. ~~Therefore noise impacts would be less than significant.~~



* A = Off site residential location



North

Not to Scale

SOURCE: Matalon Architecture and Planning, 2002.

02/09/02

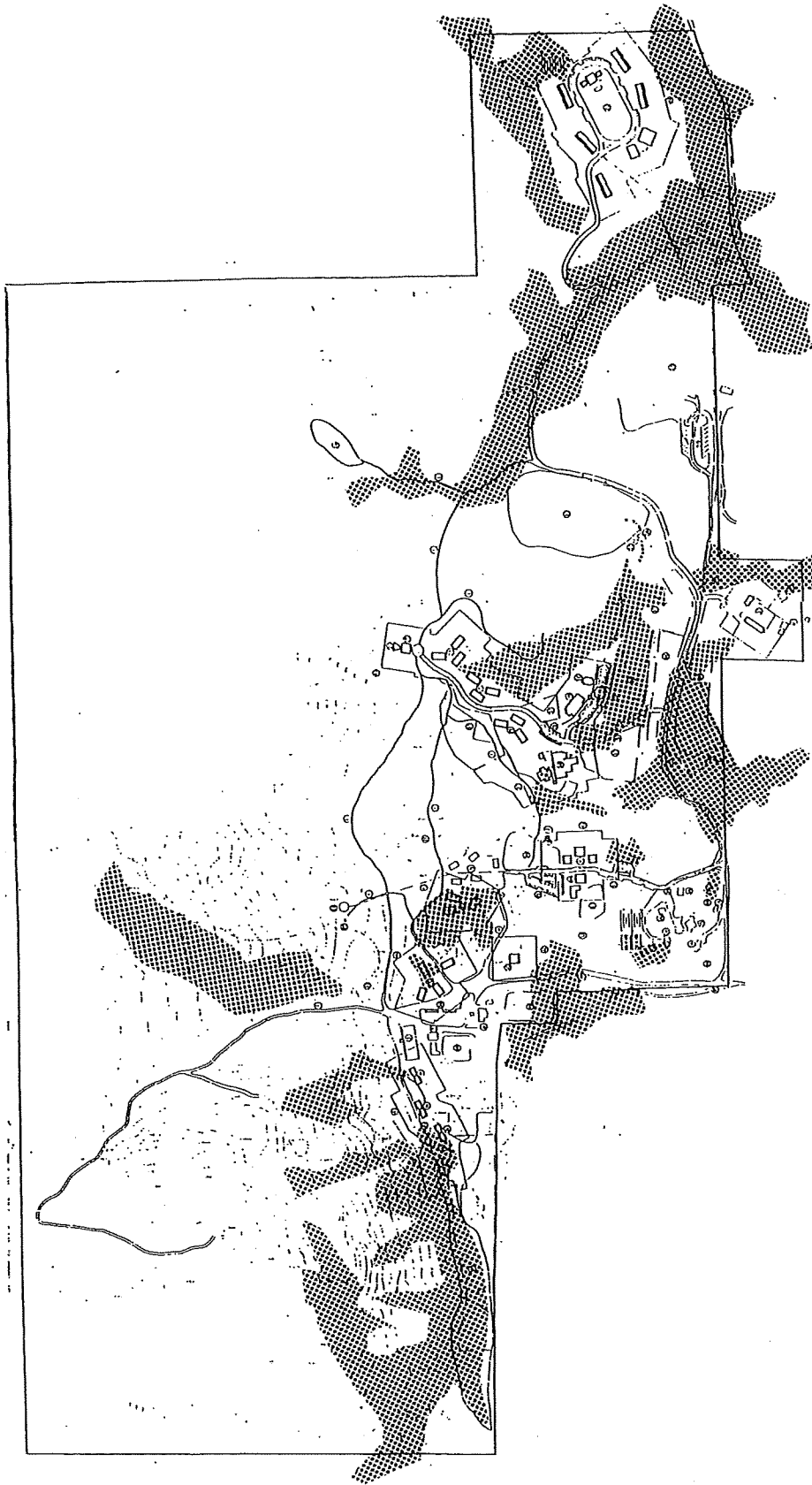
Salvation Army Divisional Camp and Retreat

Project Components, Project Boundary Measurement Points and Off-Site Residence Locations

FIGURE

2.4-1





North

Not to Scale

02/09/02

FIGURE

2.4-3

Salvation Army Divisional Camp and Retreat

**Potentially Noise Sensitive Avian Habitat:
Coastal Sage Scrub, Coastal Sage-Chaparral Scrub, and
Coast Live Oak Woodland Habitats On-Site**



SOURCE: Matalon Architecture and Planning, 2002.

SPECIAL NOTICE

Procedures for Maintenance Next to Property Line

Due to the Camp's close proximity to adjacent private property, special care must be taken in certain areas to reduce the noise from the power tools and machines (i.e., street sweepers, motorized bush trimmers, leaf blowers, mowers, etc.) while performing landscaping activities. The following signs shall be installed around the perimeter of the noise sensitive areas at the locations indicated on the maps in this document.

Example Signs

***NOISE SENSITIVE AREA*
NO POWER TOOLS
OR MACHINES
MAY BE OPERATED
BEYOND THIS POINT**

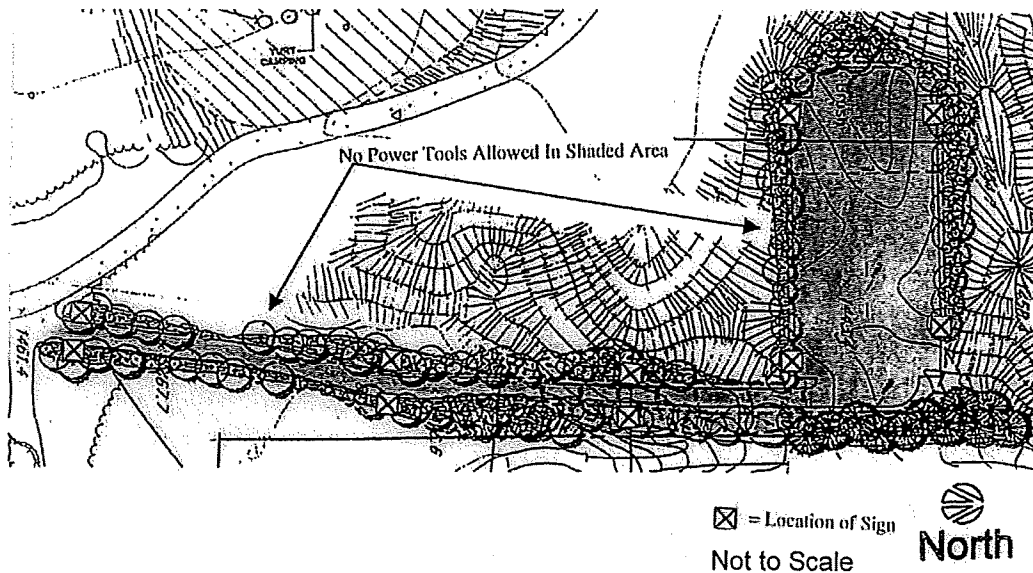
***NOISE SENSITIVE AREA*
NO STREET SWEEPING
ALLOWED BEYOND
THIS POINT**

NOISE SENSITIVE AREAS

- Overflow Parking Lot and Access Street

The Overflow Parking Lot and the street used to access the lot are also located within a close distance to the property line where noise from power tools and a street sweeper could violate the County Noise Ordinance (Refer to the following map for exact area and location of signs). All maintenance work performed along this street and parking lot must be done with non-motorized tools. No street sweeping shall be executed in this area.

OVERFLOW PARKING LOT



Source: BRG Consulting, Inc., 2003

3/21/03



Salvation Army Divisional Camp and Retreat

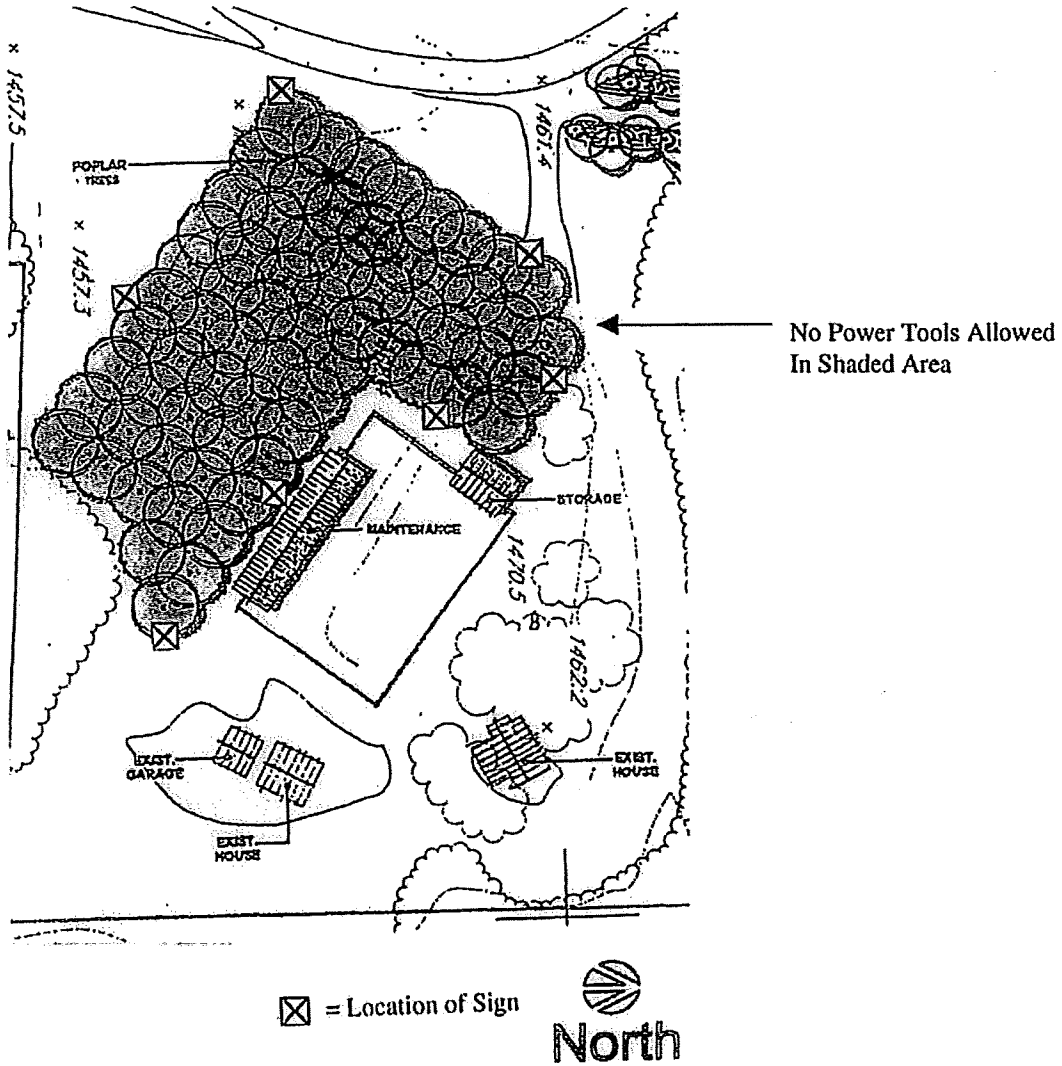
Salvation Army Procedures Manual Insert

FIGURE
2.4-4a

- Maintenance Building

The trees and vegetation surrounding the Maintenance Building are in close proximity to the property line. Noise from power tools in this area could violate the County Noise Ordinance. No power tools are allowed to be used on the Poplar trees or other vegetation in this area. Refer to the following map for specific areas and location of signs.

MAINTENANCE BUILDING



Not to Scale

Source: BRG Consulting, Inc., 2003

3/21/03



Salvation Army Divisional Camp and Retreat

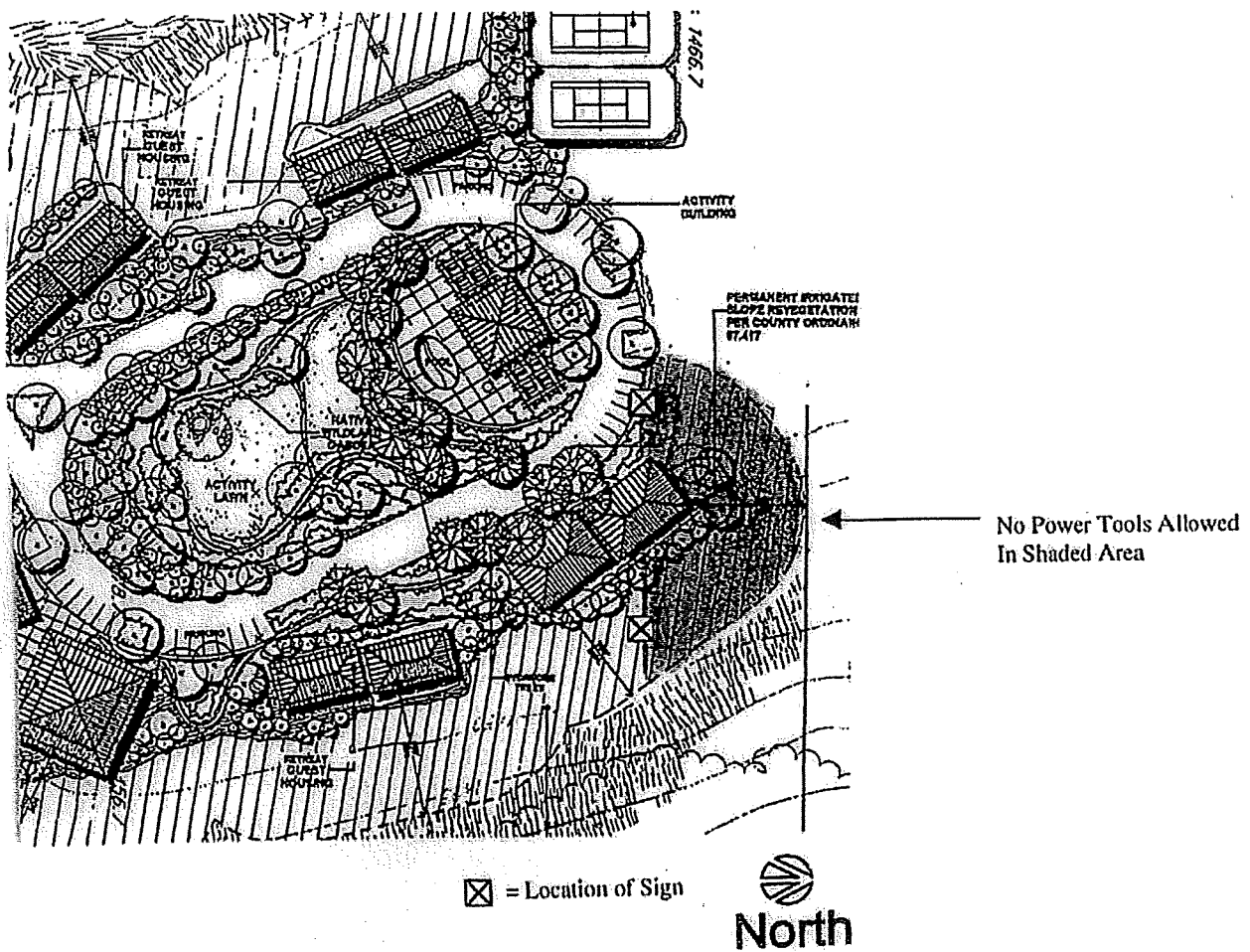
Salvation Army Procedures Manual Insert

**FIGURE
2.4-4b**

- Retreat Center – Northwest Building

The building to the northwest of the Activity Building is located close to the property line where motorized landscaping equipment could violate the San Diego County Noise Ordinance. No power tools will be permitted in the area from approximately the edge of the parking spaces adjacent to Retreat's Northwest Building, east to the property line and north to the property line (See map for specific area). The appropriate signage shall be installed and mounted at the approximate locations indicated on the map by a (X).

RETREAT CENTER AREA



Not to Scale

Source: BRG Consulting, Inc., 2003

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Salvation Army Divisional Camp and Retreat

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**FIGURE
2.4-4c**

TABLE 2.4-1
County Noise Ordinance Limits

NO.	Land Use Zone	Time of Day	One Hour Average Sound Level (dBA)
1	R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-87, S-88, S-90, S-92, R-V, and R-U Use regulations with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m.	50
		10 p.m. to 7 a.m.	45
2	R-RO, R-C, R-M, C-30, S-84, S-86, R-V and R-U Use regulations with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m.	55
		10 p.m. to 7 a.m.	50
3	S-94 and other commercial zones	7 a.m. to 10 p.m.	60
		10 p.m. to 7 a.m.	65
4	M-50, M-52 and M-54	Anytime	70
5	S-82, M-58 and all other industrial zones.	Anytime	75

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-2
On-Site Road Leq Values at the Property Line and Residences

Location	Nearest Distance	Leq
1	300'	41
2	600'	38
3	1,700'	34
4	3,700'	30
5	3,400'	31
6	1,600'	34
7	1,100'	36
9	1,500'	34
10	500'	39
11	400'	40
12	600'	38
13	1,600'	34
14	1,600'	34
A	500'	38
B	600'	38
C	2,000	32
D	2,600	31

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-3
Reference Activity Average Hourly Noise Levels

Source	Reference Level At 50 Ft.
Recreational Rope Course	60
Existing Pool	64
Bus Drop Off	68
Sports Courts	62
Basketball	58
Presentation Area 1	90/80/70
Presentation Area 2	90/80/70
Presentation Area 3	90/80/70
Dining Facility	65
Multipurpose Facility	67
Maintenance Yard	60
New Pool	64

Note: Dual numbers for the presentation areas apply to the amplified source with the highest number being forward of the speakers, the middle number being to the side of the speakers, and the lower number behind the speakers.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-4
Average Noise Levels at Property Line Points and Residences for
Activity Areas with Presentation Area Sound Amplification

#	Location																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	C	D
A	25	31	44	28	24	20	19	18	18	19	22	23	20	18	24	21	16	16
B	30	37	41	30	29	25	24	23	23	24	27	28	25	23	30	26	21	21
C	42	45	38	30	31	31	30	29	29	30	35	37	31	29	40	34	26	26
D	28	34	39	28	28	23	22	21	21	22	25	26	23	21	27	24	19	19
E	34	47	33	25	25	24	23	22	22	23	27	30	25	22	33	27	21	20
F	38	32	35	41	56	47	55	33	33	33	37	37	48	43	38	37	30	41
G	53	63	59	53	54	33	32	31	31	31	37	38	34	32	51	36	29	29
H	52	56	53	49	42	37	36	35	35	35	47	44	39	35	53	43	32	31
I	40	37	32	26	29	29	28	27	27	28	33	35	30	27	38	33	25	34
J	42	37	33	28	31	32	30	30	30	31	37	39	33	30	41	36	27	25
K	36	27	26	19	21	23	27	24	24	26	35	48	26	23	40	31	21	20
L	36	42	35	27	28	26	26	25	25	26	30	32	27	26	36	30	26	22
M	26	23	22	19	23	71	41	47	45	37	30	27	36	41	26	30	34	33
TOTAL	56	64	60	55	58	31	55	48	46	42	50	51	49	46	56	49	38	43

Notes: a. Source Code #: A = Rope Course, B = Existing Pool, C = Bus Drop Off, D = Sports Courts, E = Basketball, F = Presentation Area 1, G = Presentation Area 2, H = Presentation Area 3, I = Dining; J = Multipurpose, K = Maintenance, L = New Pool, M = Retreat Pool

b. Please see Figure 2.4.1 for off-site receptor locations.

Bold = Noise level exceeds daytime County Noise Ordinance level of 50 dBA.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-5
Average Noise Levels at Property Line Points and Residences for
Activity Areas with No Presentation Area Sound Amplification

Location																		
#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	C	D
A	25	31	44	28	24	20	19	18	18	19	22	23	20	18	24	21	16	16
B	30	37	41	30	29	25	24	23	23	24	27	28	25	23	30	26	21	21
C	42	45	38	30	31	31	30	29	29	30	35	37	31	29	40	34	26	26
D	28	34	39	28	28	23	22	21	21	22	25	26	23	21	27	24	19	19
E	34	42	33	25	25	24	23	22	22	23	27	30	25	22	33	27	21	20
F	18	12	15	21	36	27	35	13	13	13	17	17	28	23	18	17	10	21
G	33	43	39	33	34	13	12	11	11	11	17	18	14	12	31	16	19	9
H	32	36	33	29	22	17	16	15	15	15	27	24	19	15	33	23	12	11
I	40	37	32	26	29	29	28	27	27	28	33	35	30	27	38	33	25	34
J	42	37	33	28	31	32	30	30	30	31	37	39	33	30	41	36	27	25
K	36	27	26	19	21	23	27	24	24	26	35	48	26	23	40	31	21	20
L	36	42	35	27	28	26	26	25	25	26	30	32	27	26	36	30	26	22
M	26	23	22	19	23	31	41	47	45	37	30	27	36	41	26	30	34	33
TOTAL	49	50	50	41	42	37	43	47	45	39	43	50	40	41	47	41	37	37

- Notes:
- a. Source Code #: A = Rope Course, B = Existing Pool, C = Bus Drop Off, D = Sports Courts, E = Basketball, F = Presentation Area 1, G = Presentation Area 2, H = Presentation Area 3, I = Dining; J = Multipurpose, K = Maintenance, L = New Pool, M = Retreat Pool
 - b. Please see Figure 2.4.1 for off-site receptor locations.
- Bold** = Noise level exceeds daytime County Noise Ordinance level of 50 dBA.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-6
Average Noise Levels from the HVAC Units⁽¹⁾
at the Property Line Points and Residences

Location																		
#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	C	D
A	*	*	*	37	30	29	*	*	*	*	*	*	*	*	*	*	*	*
B	36	39	38	29	31	27	26	25	25	26	29	30	28	25	33	29	23	23
C	36	44	41	36	27	34	32	31	31	32	34	33	34	31	35	35	29	29
D	31	29	27	23	27	29	27	25	25	26	30	29	30	25	30	29	23	23
E	34	31	26	21	23	23	22	21	21	22	27	29	24	21	31	27	19	19
F	40	37	32	27	29	29	28	27	27	28	33	35	30	27	37	33	25	25
G	37	34	29	24	26	26	*	*	*	*	*	32	*	*	34	*	*	*
H	40	36	32	27	30	31	30	29	29	30	36	38	31	28	38	34	26	26
I	35	*	*	*	26	25	24	23	30	24	28	30	25	22	33	28	22	22
J	34	34	31	25	18	21	21	21	23	23	32	*	23	20	35	33	19	18
K	13	10	8	6	9	14	22	25	25	23	19	15	21	19	13	18	18	1
K	12	10	8	5	9	14	24	27	27	22	17	14	20	21	12	17	19	18
M	12	9	8	5	9	14	24	33	31	20	16	13	19	24	12	16	20	19
N	12	9	8	5	8	12	21	31	37	22	16	13	17	21	12	16	22	19
O	12	9	8	5	8	12	20	27	31	24	17	13	18	20	12	17	21	18
P	25	22	21	19	21	28	36	39	40	42	31	27	34	35	26	31	33	30
TOTAL	46	47	44	41	38	40	40	42	44	44	42	43	40	39	45	43	37	36

Notes: (1) = a. Asterisk denotes situations where the location is completely shielded from the HVAC for the structure listed.
 b. Source Code #: A = Staff Housing; B = New Cabins; C = Education Group; D = Classroom; E = Dining HP1; F = Dining HP2; G = Dining CU1; H = Multipurpose/Theater; I = Administration; J = Maintenance; K = Retreat 1; L = Retreat 2; M = Retreat 3; N = Retreat 4; O = Retreat 5; P = Retreat 6.
 c. Please see Figure 2.4-1 for off-site receptor locations.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-7
Setback from Property Line Required for Unmitigated Maintenance
Noise to Meet County Standard of Less than 50 dBA Leq ⁽¹⁾

Source	Required Distance from Property Line for Ordinance Conformance
Tractor	80'
Lawnmower	89'
Bush Trim	112'
Leaf Blower	89'
Line Trim	80'
Refuse	89'
Street Sweeper	249'

Notes: (1) a. The calculations do not account for terrain, structure shielding, or excess atmospheric attenuation.
 b. Time calculated at two minutes in any hour.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-8
Average Noise Levels with Mitigation at Property Line Point and Residences for Activity Areas

Location																		
Source	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	C	D
A	25	31	44	28	24	20	19	18	18	19	22	23	20	18	24	21	16	16
B	30	37	41	30	29	25	24	23	23	24	27	28	25	23	30	26	21	21
C	42	45	38	30	31	31	30	29	29	30	35	37	31	29	40	34	26	26
D	28	34	39	28	28	23	22	21	21	22	25	26	23	21	27	24	19	19
E	34	42	33	25	25	24	23	22	22	23	27	30	25	22	33	27	21	20
F	18	12	15	21	36	27	35	13	13	13	17	17	28	23	18	17	10	21
G	33	43	39	33	34	13	12	11	11	11	17	18	14	12	31	16	19	9
H	32	36	33	29	22	17	16	15	15	15	27	24	19	15	33	23	12	11
I	40	37	32	26	29	29	28	27	7	28	33	35	30	27	38	33	25	34
J	42	37	33	28	31	32	30	30	30	31	37	39	33	30	41	36	27	25
K	36	27	26	19	21	23	27	24	24	26	35	48	26	23	40	31	21	20
L	36	42	35	27	28	26	26	25	25	26	30	32	27	26	36	30	26	22
M	26	23	22	19	23	31	41	47	45	37	30	27	36	41	26	30	34	33
TOTAL	49	50	50	41	42	37	43	47	45	39	43	50	40	41	47	41	37	37

Notes: (1) = a. Source Code # : A = Rope Course, B = Existing Pool, C = Bus Drop Off, D = Sports Courts, E = Basketball
F = Presentation Area 1, G = Presentation Area 2, H = Presentation Area 3, I = Dining, J = Multipurpose,
K = Maintenance, L = New Pool, M = Retreat Pool.

b. Please see Exhibit 7 in Noise Analysis for point location identification.

c. T = Total of all sources if operated together which is highly unlikely.

Source: Gordon Bricken & Associates, 2004.

TABLE 2.4-9
Mitigated Average Noise Level from the HVAC Units at ⁽¹⁾
the Property Line Points and Residences

Location																		
Building	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	C	D
1.	*	*	*	35	28	29	*	*	*	*	*	*	*	*	*	*	*	*
2.	34	37	36	27	29	25	24	23	23	24	27	28	26	23	31	27	21	21
3.	38	36	33	28	25	33	31	30	30	31	35	35	33	30	37	37	28	28
4.	29	27	25	21	25	27	25	23	23	24	28	27	28	23	28	27	21	21
5.	34	31	26	21	23	23	22	21	21	22	27	29	24	21	31	27	19	19
6.	39	36	31	26	28	28	26	26	26	27	32	34	29	26	36	32	23	24
7.	35	32	27	22	24	24	*	*	*	*	*	32	*	*	34	*	*	*
8.	38	34	30	25	28	29	28	27	27	28	34	36	29	26	36	32	24	24
9.	33	*	*	*	24	23	22	21	28	22	26	28	23	20	31	26	20	20
10.	32	32	29	23	16	19	19	19	21	21	30	*	21	18	33	31	17	16
11.	13	10	8	6	9	14	22	25	25	23	19	15	21	19	13	18	18	15
12.	12	10	8	5	9	14	24	27	27	22	17	14	20	21	12	17	19	18
13.	12	9	8	5	9	14	24	33	31	20	16	13	19	24	12	16	20	19
14.	12	9	8	5	8	12	21	31	37	22	16	13	17	21	12	16	22	19
15.	12	9	8	5	8	12	20	27	31	24	17	13	18	20	12	17	21	18
16.	23	20	19	17	19	26	34	37	38	40	29	25	32	33	24	29	31	28
TOTAL	45	44	40	38	36	38	38	39	43	42	41	42	39	37	44	41	35	34

- Notes: (1) = a. Asterisk denotes situations where the location is completely shielded from the HVAC for the structure listed.
b. Source Code #: 1 = Staff Housing; 2 = New Cabins; 3 = Education Group; 4 = Classroom; 5 = Dining HP1; 6 = Dining HP2; 7 = Dining CU1; 8 = Multipurpose/Theater; 9 = Administration; 10 = Maintenance; 11 = Retreat 1; 12 = Retreat 2; 13 = Retreat 3; 14 = Retreat 4; 15 = Retreat 5; and, 16 = Retreat 6.
c. Please see Exhibit 7 for point location identification.
d. Total of all units based on the assumption that all units are operated simultaneously.

Source: Gordon Bricken & Associates, 2004.

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