PC 4/25/13
#8
16 pages

COMMUNITY DEVELOPMENT AGENCY

DEVELOPMENT SERVICES DIVISION

http://www.edcgov.us/DevServices/

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
3368 Lake Tahoe Blvd., Suite 302
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax
tahoebuild@edcgov.us

TO:	Planning Commission	Agenda of:	April 25, 2013
FROM:	Aaron Mount, Project Planner	Item No.:	8
DATE:	April 17, 2013		

RE: **Z12-0004/S11-0007/Rescue Community Center; Recommended Revisions to Conditions of Approval No. 1 and Revised Environmental Noise Assessment (Exhibit M Attachment 4)**

Background

At the March 28, 2013 public hearing, the Planning Commission identified several issues, remanded the project to staff for further analysis, and continued the item to April 25, 2013. The issues are the following:

1: Analysis of Potential Noise Impacts
2: Dust Produced by the Track
3: Hours of Operation of the Remote Control Race Car Track
4: Enforcement of Track Rules and Hours of Operation

Analysis

The applicant has submitted a revised Environmental Noise Assessment, prepared by Bollard Acoustics dated April 15, 2013, analyzing the noise issues (Exhibit M Attachment 4). Additionally the applicant has submitted a new project description in an effort to address concerns expressed by the Planning Commission (Revised Exhibit I).

Issue No. 1: Analysis of Potential Noise Impacts

Summary of Revised Environmental Noise Assessment: The applicant has submitted a revised acoustical analysis which analyzed the noise generation potential of ten remote control cars at the site at one time. This increase in the number of remote control cars being analyzed from one to ten was requested by the Planning Commission.

County Response: The revised acoustical study makes the following conclusion and therefore Staff has not proposed any changes to the proposed mitigations included in the CEQA initial study and conditions of approval:

Noise exposure from project remote control race car operations is predicted to satisfy El Dorado County's daytime noise exposure limits for electric-powered cars. The following specific measures are recommended to reduce noise levels generated during events at this facility and to reduce the potential for adverse public reaction at the nearest residences.
1. All events and on-site activities shall be conducted within the proposed hours of 9 am to 7 pm.
2. The applicant should setup and operate the proposed P/A system such that it does not result in exceedance of the County noise standards at nearby sensitive areas. Noise level readings should be taken during initial P/A system setup and operation to allow adjustments to speaker locations and amplifier settings as appropriate to satisfy those standards.

Issue No. 2: Dust produced by the remote control race car track

Summary of Issue: Several Commissioners expressed concern about potential dust that could be produced by use of the remote control race car track.

County Response: The applicant has proposed to place a water tank on-site for dust suppression during races and fire suppression in case of fire. The parcel is supplied with public water by EID and a water spigot is located at the track, so Staff is not concerned with the proposal of a water tank; however Staff proposes the inclusion of the following condition in order to reduce the potential for dust to travel onto adjacent parcels:

The remote control race car track shall be watered down prior to use each day and between events if necessary in order to reduce the potential for dust to travel beyond the property lines.

Issue No. 3: Hours of Operation of the Remote Control Race Car Track

Summary of Issue: Members of the Rescue community and Planning Commissioners expressed concern about the remote control race car track being open seven days a week from 9 am to 7 pm.

County response: The applicant has proposed to limit use of the track to Thursday through Sunday between the hours of 9 am and 7 pm. The track would be closed Monday through Wednesday. A maximum of 20 users would be allowed to use the track during non-race practice times.

Issue No. 4: Enforcement of Track Rules and Hours of Operation

Summary of Issue: The Rescue Community Center does not have full time staff to monitor the use of the property as it is mainly a volunteer organization. Adjacent property owners provided evidence at the hearing of use of the remote control car race track even though signs are clearly posted that the track is closed. The adjacent property owners and the Planning Commissioners

expressed the need for a way to limit access to the track to ensure that it is not used outside of the requested hours of operation.

County Response: The Rescue Community Center, as the property owner, should be responsible for reducing trespassers to the greatest extent that it can with the understanding that not all trespassers can be stopped. The Rescue Community Center has not provided a response to this request and has stated that they are evaluating alternatives that they will present at the hearing. Planning Staff has suggested the placement of a fence to provide a physical barrier between the on-site parking and the race track.

Revisions to Condition 1 are shown in strike out and underline:

1. This Rezone and Special Use Permit is based upon and limited to compliance with the project description, the Conditions of Approval set forth below, and the following hearing exhibits:

   Exhibit E .....Site Plan
   Exhibit I .....Applicant Submitted Project Description

   Any deviations from the project description, exhibits, or conditions must be reviewed and approved by the County for conformity with this approval. Deviations may require approved changes to the permit and/or further environmental review. Deviations without the above described approval will constitute a violation of permit approval.
   The project description is as follows:

   Rezone of parcel APN 069-160-16 from Estate Residential Five –Acre (RE-5) to Recreational Facilities (RF).

   Special Use Permit to allow the continued use and expansion of the Rescue Community Center. The approval shall allow the following uses:

   A. The use of the existing non-conforming community center building as a social and recreation facility.
   B. Use of the project parcel outside of the community center building for the following existing non-conforming uses: use of the horse arena for horse shows, horse shoe pits, farmers market, community garden, flea market, community events, training for the fire department, dog shows, agricultural educational events (4H), Girl Scout and Boy Scout events, swap meets, and general outdoor recreational uses.
   C. Use of the existing horse arena as a remote control scale car race track as follows;
      1. Maximum of <u>20</u> ~~50~~ users at any given time, except during racing events.
      2. Racing season is from March 1st through October 31st.
      3. Race times to begin at 9 am and shall end by 7 pm. Setup will begin 8 am and all patrons shall leave the site by 10 pm.
      4. Racing events will be on Friday, Saturday, and Sunday only during racing

season. Races will be held every other weekend. There will be two ~~Friday events and two~~ three-day events. ~~There may be up to 50 racing events per season.~~

5. The maximum attendance by racers and spectators shall be 100 persons at any one time.
6. Snacks may be sold on race days to benefit the Rescue Community Center.
7. The track is open for use Thursday through Sunday and shall be closed to all use Monday through Wednesday. The hours of operation are from 9 am to 7 pm.

This approval shall include the following, located as shown on Exhibit E:

a. One 2,509 square foot community center building (#1 on site plan);
b. An out building as an accessory to the community center (#2 on the site plan);
c. A horse arena use as a remote control car race track;
d. A 216 square foot scoring building (#8 on the site plan);
e. A drivers stand for the off-road track(#9 on the site plan);
f. A 160 square foot container for storage of race track items (#12 on the site plan);
g. A drivers stand for the oval track (#14 on the site plan);
h. A grandstand for viewing (#15 on the site plan).

Attachments:

Revised Exhibit I.....Applicant-submitted Project Description
Revised Exhibit M, Attachment 4.....Environmental Noise Assessment (Attachment to the Proposed Mitigated Negative Declaration and Initial Study)

REVISED EXHIBIT I

S 11-0007/Rescue RC Track

The Project Description is as follows:

Objective: The objective of this project is to create a community oriented, family friendly RC car track that continues to support and provide revenue for the Rescue Community Center as it has since. 1997

1. General Physical Description: The remote control car track is located on a 4.01 acre parcel known as APN 069-160-16-100 at 4180 Green Valley Rd. in Rescue, Ca. The below description applies to the area of the arena and the activities held therein. Events in the Rescue Community Center building remains unchanged per prior agreements with the county.

a. All RC car activities shall occur within the boundaries of the existing arena or on the portion of property south of the arena.
b. The RC use areas will go through redesigns twice annually to maintain interest for the track users. This may involve the Short-Course Track, Circle Track, Rock Crawler track, Pulling Track, Drag Racing Track, and other possible RC Track variations. These redesigns will utilize tractors, bobcats, and other light duty dirt moving equipment.
c. Two small permanent buildings outside of the arena will be used. The first is a storage container located south of the arena for the storage of tools and supplies needed for track events and maintenance. The second is an announcer's booth located west of the track used to house the electronics for use during special events.
d. Three other structures are present. There are two elevated driver stands. One driver stand is for the circle track and one for the short course track. The third structure is a set of bleachers for spectators located west of the track.
e. All buildings and/or structures may need to be remodeled, removed, rebuilt, or otherwise undergo construction to be in compliance with county Building Department regulations. Exact placement may vary based on the needs and function of the RC track and community center.
f. Water and Electricity is supplied to the arena area in compliance with all county codes.
g. We plan a water tank to be located on the premises used for purposes of dust suppression during races and fire suppression in case of fire.
h. Parking is located in the large parking lot north of the arena.
i. The existing road on the west side of the arena will be used to access the area south of the track by management and fire department in case of fire. This road will be closed to the general public except on race days. On race days, this area may be used for overflow parking if the general parking area becomes full. Fire department vehicle assess will be a priority if overflow parking is utilized on race days.

2. RC track use Description: Community use

a. The track will be open for use Thursday through Sunday.
b. Closed Monday through Wednesday
c. Hours of operation between 0900 and 1900.
d. Maximum of 20 users at any given time, except during racing events.
e. Community use will be from March 1st through November 30th, weather permitting.

3. RC track use description: During RC racing events

a. Racing season is from March 1st through October 31st.
b. Races will be open to electric RC cars only.
c. Race times begin at 0900 and will end at 1900. Setup will begin at 0800 and all patrons will leave by 2000.
d. Racing events are Saturday and Sunday during racing season.
e. Races will be every other weekend (Saturday and Sunday) throughout the season. There will be two 3-day events. These will be Friday, Saturday, and Sunday.
f. The average number of racers in attendance is 20 to 100. The number of spectators varies greatly but could be up to 100 on race days.
g. A PA system with speakers will be used for announcements and music not to exceed county noise ordinance levels. Computers, transponders, and other electrical equipment will also be used to manage races.
h. Snacks may be sold on race days to benefit the Rescue Community Center.

4. Other events and uses for this area:

a. Mini and micro remote control cars and race events
b. Horse shows
c. Horse Shoe pits and tournaments
d. Farmers Market
e. Community Garden
f. Flea Market
g. Rescue Day Events
h. Demonstration of Items
i. Training for Fire Department
j. Dog Shows
k. 4-H Events
l. Boy Scouts and Girl Scouts of America Events
m. Swap Meet
n. General Outdoor Recreation Usage

Environmental Noise Assessment

Rescue Community Center Racetrack

Rescue, California

BAC Job # 2012-024

Prepared For:

Rescue Community Group

Attn: Mr. Seth Griffin
4180 Green Valley Road
Rescue, CA 95682

Prepared By:

Bollard Acoustical Consultants, Inc.

Paul Bollard, President

April 15, 2013

BOLLARD
Acoustical Consultants

3551 Bankhead Road ▸ Loomis, CA 95650 ▸ Phone: (916) 663-0500 ▸ Fax: (916) 663-0501 ▸ BACNOISE.COM

Introduction & Project Description

The Rescue Community Center is located at 4180 Green Valley Road in Rescue, California. The proposed project is to reopen the remote control car tracks located on the Community Center site for limited use with both gas and electric remote control cars.

Proposed activities at this site would consist of remote control car racing events on two Saturdays a month during the months of March through October. The races would take place between 9 am and 7 pm on the designated Saturdays, with up to 10 cars participating in each race. The facility is composed of two race tracks; an off-road track with jumps and turns (Figure 2), and an elliptical track (Figure 3). Race events would occur on one track or the other, but both tracks would reportedly not be in use at the same time.

Due to the proximity of the proposed center to surrounding residences, the project applicant has retained Bollard Acoustical Consultants, Inc. (BAC) to prepare this noise analysis for the project. Specifically, BAC was retained to evaluate and assess the potential noise generation of racing events and to compare those noise levels against applicable El Dorado County noise standards. The relationship of the project site to the nearest residences is illustrated in Figure 1. Definitions of acoustical terminology are provided in Appendix A.

It should be noted that, in response to feedback provided by El Dorado County, and based on conclusions of the preliminary noise study prepared for this project by BAC (May 7, 2012), the project description was revised to exclude gasoline-powered cars and more extensive noise testing of electric cars were conducted at the site. This report presents the pertinent portions of the initial report with the updated noise measurement data and analysis applicable to the current project.

Figure 1

RCC Racetrack - Rescue, CA

Project Vicinity & Noise Measurement Locations

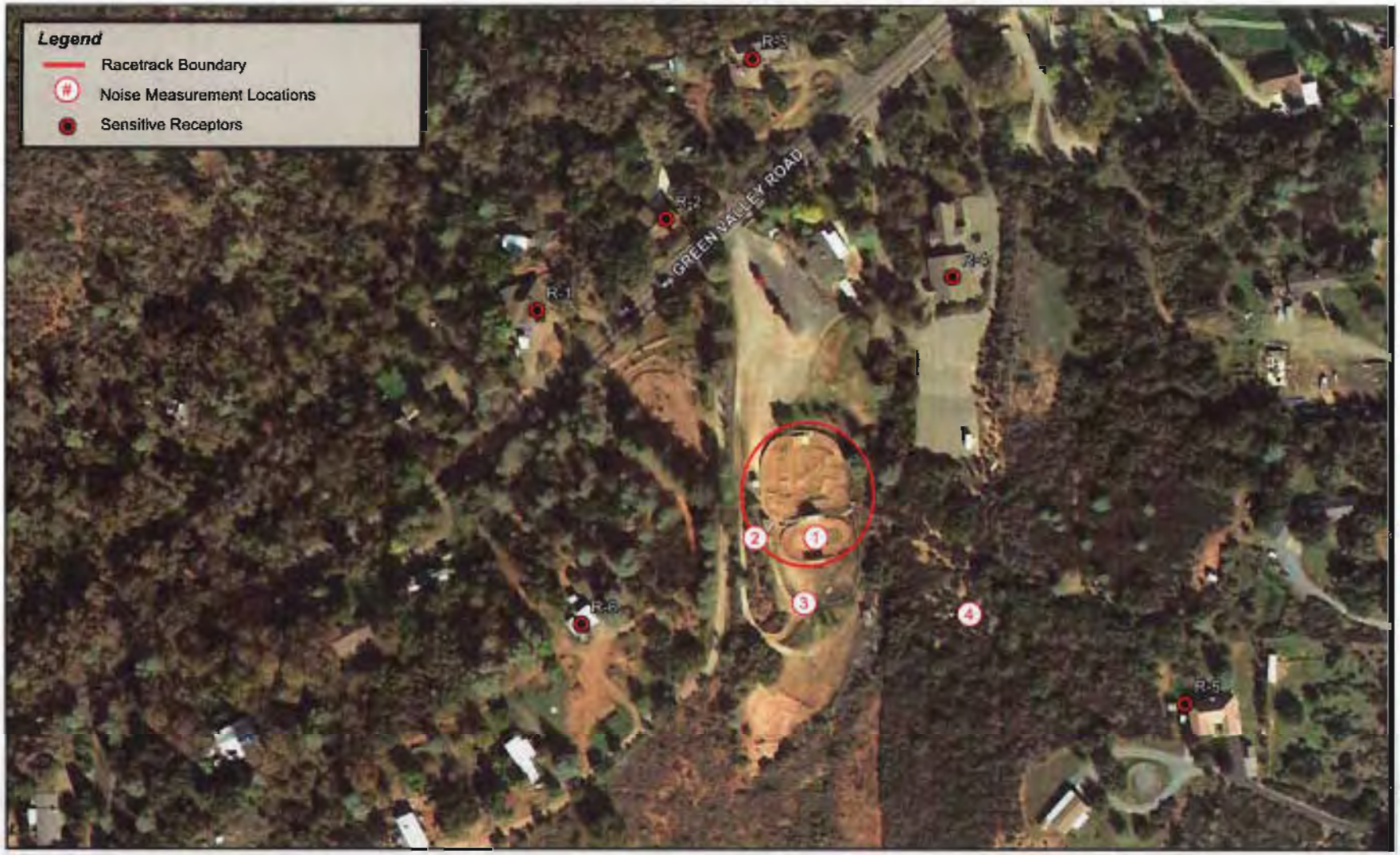
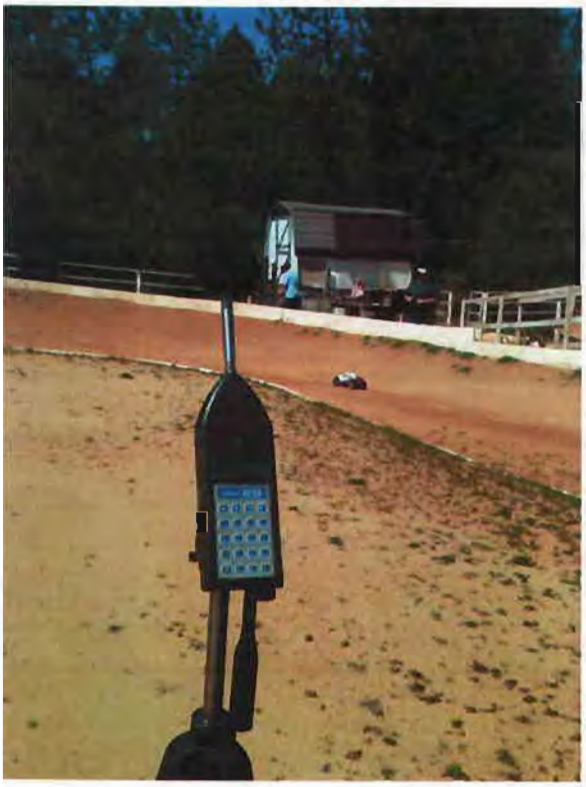


Figure 2 – Northern Racetrack Area

Figure 3 – Southern Racetrack Area



Criteria for Acceptable Noise Exposure

The El Dorado County Noise Element of the General Plan contains policies identifying acceptable levels of noise within the County. Specifically, Policy 6.5.1.7 states that noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6.2 for noise-sensitive uses. Noise Element Table 6.2 has been reproduced below.

TABLE 6-2
NOISE LEVEL PERFORMANCE PROTECTION STANDARDS FOR NOISE SENSITIVE LAND USES AFFECTED BY NON-TRANSPORTATION* SOURCES

	Daytime 7 a.m. - 7 p.m.		Evening 7 p.m. - 10 p.m.		Night 10 p.m. - 7 a.m.	
Noise Level Descriptor	Community	Rural	Community	Rural	Community	Rural
Hourly L_{eq}, dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	50

Notes:

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

*Note: For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Control of noise from facilities of regulated public facilities is preempted by California Public Utilities Commission (CPUC) regulations. All other noise sources are subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, schools, hospitals, commercial land uses, other outdoor land use, etc.

Because the proposed races would occur between the hours of 9 am and 7 pm, the County's daytime noise standards would apply to this project. As noted in the footnotes of Noise Element Table 6-2, there are two categories of noise standards; Community and Rural. According to County Zoning Maps, the Rural standards would apply. According to the footnote to Table 6-2 above, the rural standards would apply at a point 100 feet from a residence.

Analysis of Project Noise Generation

The noise-producing components of the proposed project consist of the remote control cars and a public address system which is used during race events. Each of these sources is evaluated below.

Remote Control Car Noise Assessment

To quantify racecar noise generation at the project site, BAC had the applicant run both gas and electric powered cars around the oval (southern) track on April 16, 2012. The electric car was a Traxxas Slash and the gas car was a general 8-scale Nitro Buggy. According to track representatives who supplied and operated the test cars, these cars represent reasonable worst-case noise generation of the types of cars which would be raced at this site.

In light of the results of the April 16, 2012 noise tests, the project applicants have decided to limit racing activities at this site to the quieter electric cars. As noted above, in the original testing only one (1) representative electric car was monitored with that data extrapolated to represent the noise generation of ten (10) cars racing at once. In response to concerns expressed by the County regarding the accuracy of the extrapolation procedure used in the May 2012 report, BAC repeated the noise testing at the site with ten (10) electric cars operating concurrently on April 6, 2013. The electric cars operated during the test, which are shown in Figure 4, consisted of both one-eighth and one-tenth scale cars.

Figure 4 – Electric Cars Monitored during April 6, 2013 Noise Survey

The tests were conducted at the positions shown on Figure 1. During the April 2012 tests conducted for the preliminary site noise study, a monitoring site near the nearest residence on Green Valley Road was also utilized. Because the electric car operation as completely inaudible at that location, and because that site was heavily influenced by noise from traffic on Green Valley Road, the monitoring of that location during the 2013 testing was not considered to be warranted.

Noise level measurement equipment included a Larson-Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL ½" microphones. The systems were calibrated in the field before use with an LDL Model CAL200 acoustical calibrator. The measurement equipment/microphones were placed on tripods at a height of 5 feet above the ground and fitted with manufacturer's windscreens. Atmospheric conditions during the acoustical measurements included a temperature of approximately 65° F with calm to light winds, partly cloudy skies, and moderate humidity.

While the cars were going around the oval track, maximum and average noise levels were recorded at each test location. Those measurement results are provided in Table 1.

Table 1
Summary of Electric Remote Control Car Noise Level Measurement Results
Rescue, California (El Dorado County) - April 6th, 2013

Measurement Site – Description	L_{eq} (dB)	L_{max} (dB)
1 – Center of track (20 feet from car passbys – unshielded view)	69	73
2 – 100 feet west of track (elevated & unshielded view of track)	63	66
3 – 100 feet south of track (completely shielded view of track)	50	55
4 – 250 feet southeast of track (partially shielded view of track)	43	51

Notes: Please see the measurement locations in Figure 1.

The reference noise level data shown in Table 1 represent 10 electric cars operated and tested concurrently. During race events, up to 10 cars would race concurrently, so the noise generation of the track would be the same as the noise level data provided in Table 1 while the cars are in operation. However, according to the project applicant, the cars are typically only in operation approximately 50% of the hour, as races last approximately 10-15 minutes with approximately that same duration of time between races. As a result, the hourly average noise level during a race day event would be 3 dB lower than the reference levels shown in Table 1.

The Table 1 levels (less 3 dB for the Leq values because the cars are only racing about 50% of the hour), were projected from the center of the nearest track to positions 100 feet from existing residences using a sound level decay rate of 6 dB per doubling of distance from the source. The Table 1 reference levels collected at Site 2 (unshielded) were used for these calculations, with conservative estimates of shielding offsets applied to residences which would not have a direct view of the cars while on the tracks to account for intervening shielding for either topography or the embankment of the race tracks. The results of these calculations are shown in Table 2.

Table 2
Predicted Remote Control Car Noise Levels During Race Events at Nearest Receptors

Receptor[a]	Distance[b] (Lmax/Leq)	Shielding (dB)	L_{eq} (dB)	L_{max} (dB)
R-1	320 / 380	-5	43	51
R-2	330 / 380	-5	43	51
R-3	430 / 500	-5	41	48
R-4	260 / 280	-5	46	53
R-5	420 / 450	0	47	54
R-6	180 / 220	-5	48	56
El Dorado County Rural Noise Standards:			**50**	**60**

Notes:

a. Receptor locations are shown on Figure 1.

b. Distances were scaled from the center of the track nearest the receptor for Leq calculations and from the nearest point on the track for Lmax calculations. The receiver was assumed to be the property line or a point 100 feet from the residence in the event that the residence is located further than 100 feet from the property line.

c. Predicted levels are based on reference levels of 60 dB Leq and 66 dB Lmax at a reference distance of 100 feet and a 6 dB decrease per doubling of distance from the source.

The Table 2 data indicate that the predicted noise levels during race events would satisfy the County's daytime noise standards at all sensitive receptors in the immediate project vicinity (residences and nearby church). As a result, no additional noise mitigation measures would be warranted to achieve satisfaction with the El Dorado County exterior noise level standards for the racing of electric remote control cars at this location provided those activities are limited to daytime hours.

Although the County's Ldn-based standards are not applicable to this project because it is not a transportation noise source, the County's transportation noise standard applied to residential uses is 60 dB Ldn. Based in a worst-case average noise level of 48 dB Leq at the nearest residence (see Table 2) during hours in which racing were to occur at the site (9 am – 7 pm), the daily Ldn for the racing events computes to 42 dB Ldn. This computation indicates that the racing of electric cars on the track would generate noise levels 18 dB lower than the County allows for vehicles on public roadways.

Public Address System Noise Assessment

Public Address system (P/A) noise is highly variable, depending on the number, size, location, and orientation of the speakers, as well as the amplifier settings. As such, it is difficult to predict with certainty the noise emissions of such a system. It does appear possible, however, to operate a P/A system such that the County's noise standards would not be exceeded at the nearest receptors. This could be accomplished by utilizing several speakers facing in toward the spectator area and set to lower volume levels. Ultimately, the amplifier settings could be adjusted until a state of compliance with the County's noise standards has been reached. A commercially available hand-held noise meter could be procured by the track operator could be utilized to ensure that the P/A system noise emissions do not exceed acceptable levels at the project boundaries.

Conclusions & Recommendations

Noise exposure from project remote control race car operations is predicted to satisfy El Dorado County's daytime noise exposure limits for electric-powered cars. The following specific measures are recommended to reduce noise levels generated during events at this facility and to reduce the potential for adverse public reaction at the nearest residences.

1. All events and on-site activities shall be conducted within the proposed hours of 9 am to 7 pm.

2. The applicant should setup and operate the proposed P/A system such that it does not result in exceedance of the County noise standards at nearby sensitive areas. Noise level readings should be taken during initial P/A system setup and operation to allow adjustments to speaker locations and amplifier settings as appropriate to satisfy those standards.

These conclusions are based on the noise level test data, analysis, assumptions, and recommendations contained herein. Deviations from these data, assumptions, and recommendations could cause actual noise levels to differ from those described herein.

This concludes our environmental noise assessment for the Rescue Community Center Racetrack in Rescue, California. Please contact me at (916) 663-0500 or paulb@bacnoise.com if you have any questions or require additional information.

Appendix A

Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the Maximum level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
SEL	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy of the event into a 1-s time period.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

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