

# Appendix C

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Focused Bat Survey

# **FOCUSED BAT SURVEY**

**9850, 9876, 9900, AND 9988 WILSHIRE BOULEVARD  
ONE BEVERLY HILLS OVERLAY SPECIFIC PLAN  
CITY OF BEVERLY HILLS  
LOS ANGELES COUNTY, CALIFORNIA**

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## INTRODUCTION

This report documents the results of focused bat surveys performed on October 2 and 9, 2020, by LSA for the proposed One Beverly Hills Overlay Specific Plan Project (project).

These daytime and nighttime assessments confirmed that there are no bats roosting on the property during this fall season. Because the existing gas station improvements provide potentially suitable roosting habitat, measures to ensure no impacts to roosting bats prior to demolition are recommended.

## BAT NATURAL HISTORY

Day roosts serve to protect bats from predators and the elements during the day while resting and/or rearing their young; in human-made structures, these roosts are usually in small cavities or crevices. Bat species that commonly use anthropogenic structures for roosting include the Mexican free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), pallid bat (*Antrozous pallidus*), and Yuma myotis (*Myotis yumanensis*). Although bat roosts in structures can be relatively easy to identify, tree roosts are more cryptic and require close examination. Some species of bats (e.g., western red bat [*Lasiurus blossevillei*] and hoary bat [*Lasiurus cinereus*]) day roost in the foliage of trees while other bat species (e.g., pallid bat and big brown bat) day roost in crevices or cavities found in mature trees and snags.

Some types of day roosts where bats are particularly vulnerable to disturbance include maternity colonies in which female bats congregate to give birth and raise young, and hibernacula, where bats congregate to enter a period of hibernation during the winter months. A night roost, on the other hand, refers to a structure or structural feature (natural or human-made) in which bats roost during the evening between foraging bouts (e.g., crevices, cavities, corners, and recessed open spaces that are sheltered from the wind). Night roosts are typically situated in or near a foraging area and play an important role in the energetics and social interaction of bats. Because bats have separate roosting and foraging habitat requirements, it is expected that some bats may use one area for foraging and another for roosting. While more extensive and direct impacts to bats occur through roost removal, destruction, or disturbance, indirect impacts such as decline of prey base due to loss or modification of foraging habitat can also be substantial. Therefore, when assessing an area with regard to proposed alterations to habitat, a landscape-level approach is required to adequately determine potential impacts to bats.

## SURVEY METHODOLOGY

The project site is approximately 17.4 acres and located at 9850, 9876, 9900, and 9988 Wilshire Boulevard in Beverly Hills, Los Angeles County, California (Figure 1). A daytime habitat assessment was conducted to locate potential bat roosting sites in trees or buildings within the project area. A passive acoustic nighttime monitoring survey was performed to ascertain whether any bat activity occurs near suitable roosting habitat within the site. After bats were recorded passing over or near the site, a separate nighttime acoustic and emergence survey was performed to determine whether bats occupy the suitable roosting habitat by watching that area for emerging bats at dusk. The nighttime acoustic and emergence survey confirmed that bats likely do not occupy the potentially suitable roosting habitat during this fall season.



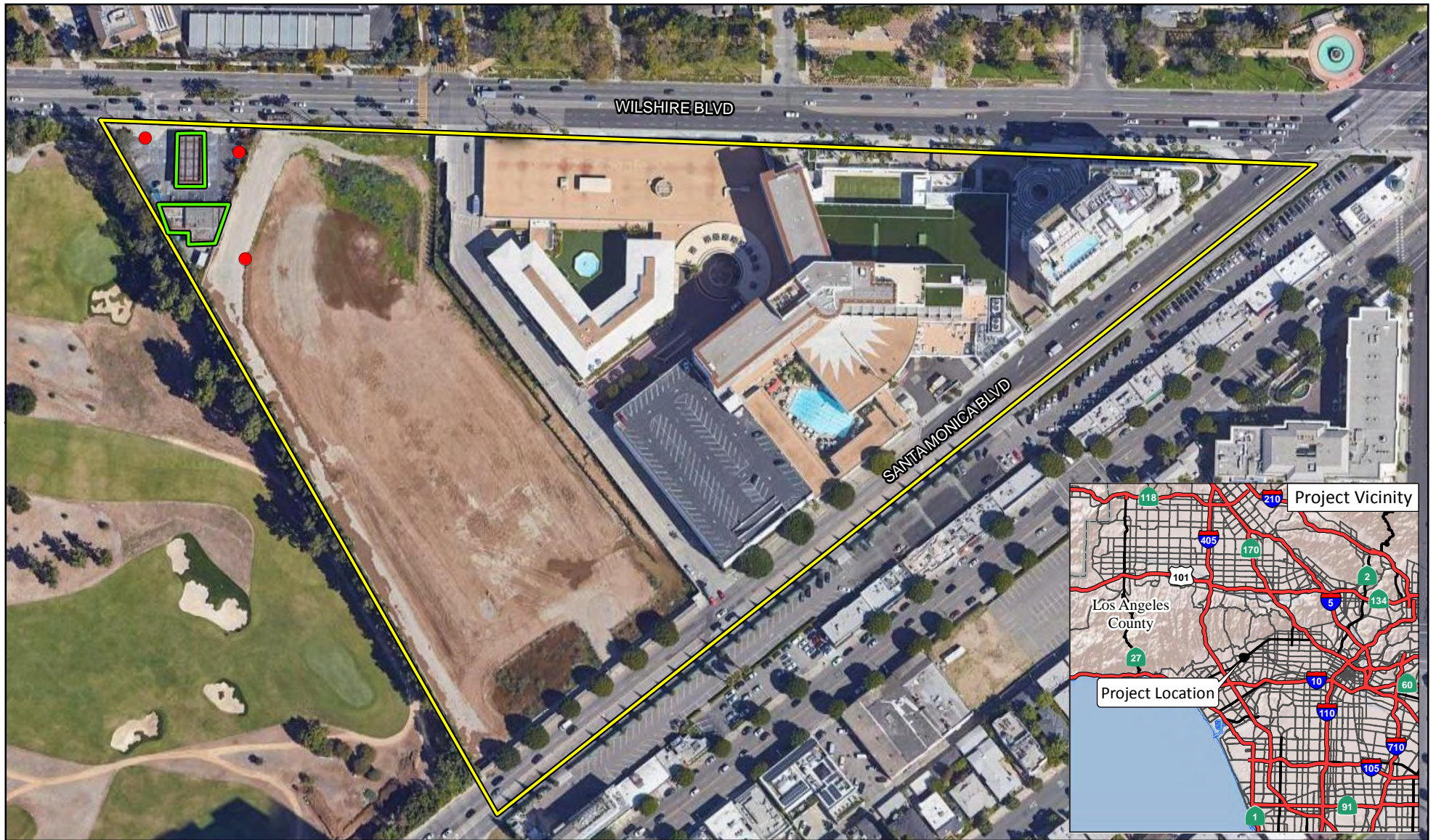


FIGURE 1

LSA

LEGEND

- Project Location
- Building with Suitable Bat Day-Roosting Habitat
- Acoustic Detector and Surveyor Position



0 100 200  
FEET

SOURCE: Google Maps (2019)

I:\BHL1901\GIS\MXD\Bat Survey\RoostingHabitat\_SurveyPositions.mxd (10/19/2020)

*One Beverly Hills Overlay Project  
Focused Bat Surveys*

Suitable Bat Roosting Habitat Locations and Survey Positions



## Daytime Habitat Assessment

On the morning and afternoon of October 2, 2020, LSA Senior Biologist and Bat Specialist Jill Carpenter and LSA Senior Biologist Sara Louwsma conducted a daytime bat habitat assessment at the project site. The bat habitat assessment consisted of walking throughout the entire project area on foot to locate any potential bat roosting sites in or around the various structures and trees within the project area.

This included examining the structures for any features such as crevices or recessed spaces that may be suitable for use as day- or night-roosting habitat, as well as for the presence of bats or bat sign (e.g., guano, urine staining, or vocalizations) that would indicate current or past use of an area by roosting bats. Particular attention was given to buildings slated for demolition as part of the proposed project.

Trees within the project site were also examined for any cavities or crevices that might be used for day roosting as well as for potential for use by foliage-roosting bats. Although bat roosts in human-made structures can be relatively easy to identify, tree roosts are more cryptic and require close examination, particularly in the case of foliage-roosting bats. Due to the nature of this roosting behavior (i.e., bats tend to roost singly, beneath leaves, and may roost in a different location each night), roosting activity in trees is typically difficult to confirm during a daytime assessment if suitable habitat is present. The row of trees that separates the golf course and 9900 Wilshire Boulevard is situated on golf course property was also examined; however, because this tree line is on the private, golf course property, the trees could not be completely assessed.

## Passive Acoustic Monitoring Survey

Suitable bat roosting habitat was identified in the Spanish tile roofs of the service station located at the site's northwest corner during the habitat assessment on October 2, 2020. No other suitable roosting habitat was identified on any of the existing buildings. Consequently, three Anabat Express ultrasound detectors (Titley Scientific) were deployed around the gas station buildings by Ms. Carpenter and Ms. Louwsma at the conclusion of the habitat assessment to detect any bat activity that might indicate the presence of roosting bats within the project area.

Figure 1 shows the locations where these detectors were deployed. The acoustic detectors were left in place for the nights of October 2 and October 3, 2020, and retrieved by Ms. Louwsma on the afternoon of October 4, 2020.

The acoustic data, which consist of the echolocation calls of free-flying bats recorded on Secure Digital (SD) cards, were subsequently analyzed manually by Ms. Carpenter using AnalookW acoustic analysis software. Species identifications, where possible, were made by comparing call recordings with a library of "voucher" calls from known hand-released bats. Some limitations are inherent in acoustic monitoring and in the analysis of acoustic data, including the fact that some species are not equally detectable or may not be recorded at all. Some bats (e.g., Mexican free-tailed bats) emit loud low-frequency echolocation calls that can be recorded from great distances and will be overrepresented in the data, while "whispering" bats (e.g., Townsend's big-eared bats) emit faint calls that may not be recorded at all. In addition, not all echolocation call sequences are identifiable because different bat species may use similar types of echolocation calls, or the same species may use different types of

echolocation calls based on the perceptual task and the immediate environment or habitat. Because the flight behavior and foraging patterns often differ between species that can generate echolocation calls that may be acoustically indistinguishable, visual observation during the survey can aid in making a more definitive identification. In addition, it is not possible to determine the numbers of bats present with passive acoustic monitoring equipment because the detectors cannot differentiate individuals. Therefore, acoustic data can only provide a relative index of bat activity for a given area. Finally, the species composition and activity levels recorded during a single nighttime visit to a site may not necessarily reflect long-term patterns of use (e.g., seasonal and nightly use of an area).

### Nighttime Emergence Survey

Because bat activity was recorded shortly after sunset on the acoustic detectors left on site on October 2 and 3, 2020, a follow-up nighttime acoustic and emergence survey was performed on October 9, 2020. Ms. Carpenter, Ms. Louwsma, and LSA Biologist Heather Monteleone performed this nighttime emergence and acoustic survey. The survey was initiated 30 minutes before sunset and continued until one hour after sunset.

The biologists surrounded the gas station and convenience store buildings and watched them for emerging bats to obtain an estimate of the number of bats present (if any), as well as to correlate any recorded acoustic data with visual observations. Figure 1 shows the biologists' positions, which were the same as the acoustic placement locations during the passive acoustic monitoring. When light levels became low enough that it was difficult to see with the unaided eye, all three biologists used night vision goggles (military-grade PVS-7, Generation 3) for observation.

Three Anabat Express ultrasound detectors (Titley Scientific) were also deployed prior to the start of the emergence period around the buildings to aid in species identification of any bats observed, including roosting bats. The acoustic detector locations for this emergence survey were identical to the placement locations for the passive acoustic monitoring, as Figure 1 shows. The detectors were retrieved at the conclusion of the survey period. The data collected from these acoustic detectors were subsequently analyzed by Ms. Carpenter using AnalookW acoustic analysis software. Species identifications, where possible, were made by comparing call recordings with a library of "voucher" calls from known hand-released bats as described above.

## SUMMARY OF SURVEY FINDINGS

### Daytime Habitat Assessment

Suitable day-roosting habitat for bats is present in the Spanish tile roofs of the gas station and convenience store buildings located at 9988 Wilshire Boulevard; however, no evidence of roosting was observed. The gas station and convenience store are bordered by a golf course to the west and the vacant 9900 Wilshire property, which is also part of the project area to the east. Although both of these areas could support insect prey and provide foraging habitat for bats, the vacant lot consists primarily of ruderal vegetation with patches of bare ground and is not expected to provide high-quality foraging habitat for bats.

Suitable roosting habitat was not found in any of the other buildings or trees within the project area. The architecture of the other structures within the project area lacked features that form crevices or

cavities suitable for use by roosting bats, while the trees were generally maintained free of decaying branches or dead fronds that would provide bat roosting habitat. The row of trees that separates the golf course and 9900 Wilshire Boulevard is situated on private, golf course property and could not be completely assessed, but they did not appear to contain crevices or cavities.

No suitable roosting habitat was found in any of the vegetation on the project site. If bats are found to be roosting in the golf course trees adjacent to the project during a pre-construction survey, no disturbance or “take” of those bats would occur so long as there is no cutting, trimming, or removal of those trees as part of the project.

Figures 2 and 3 provide representative photos of the project area.

### Passive Acoustic Monitoring Survey

Bat activity was recorded on both of the acoustic detectors that were left on site on the evenings of October 2 and 3, 2020. Three bat species were detected at the detector deployed in the parking lot for the gas station buildings: Mexican free-tailed bat, canyon bat, and Yuma myotis. Although none of these species are designated by the CDFW as “Species of Special Concern (SSC),” Yuma myotis is considered a “Special Animal” by the CDFW, and all bat species in California are protected as nongame mammal species.

At the detector deployed on 9900 Wilshire and near the back of the gas station buildings, the same three bat species were detected, but more than twice as many echolocation call sequences ( $n=26$  average per night) were recorded compared to the other detector ( $n=12$  average per night), suggesting higher levels of bat activity in that area. It should be noted that it is not possible to determine the numbers of bats present with passive acoustic monitoring equipment because the detectors cannot differentiate individuals. Therefore, acoustic data can only provide a relative index of bat activity for a given location on a given night, with the caveat that some bat species are more readily detected than others (please see the “Passive Acoustic Monitoring Survey” subsection of the “Survey Methodology” section above for more details regarding acoustic data collection). In addition, two echolocation call sequences potentially belonging to western red bat, a CDFW SSC, may also have been recorded at the detector deployed in the vacant lot; however, these sequences were fragmentary, of poor quality, and could not be conclusively identified as belonging to that species. Some of the echolocation calls on both acoustic detectors were recorded within 20 minutes of sunset. The proximity to sunset suggests that some of the recorded bats may be roosting nearby, but not on the project site. No immediately proximate roosting sites were observed during the daytime habitat survey.

### Nighttime Acoustic and Emergence Survey

During the nighttime emergence survey, bats were observed flying throughout the survey area. However, no bats were observed emerging from the Spanish tile roofs of the gas station buildings and none of the observed bats appeared to originate from anywhere within the site itself. The first bat was a canyon bat, and was observed at 18:43 hours (17 minutes after sunset) traveling from south to north across the top of the gas station buildings.





View looking south at the vacant service station buildings located in the site's northwest corner, where suitable bat day-roosting habitat is present in the Spanish tile roofs. Mature trees from the golf course property are visible in the background.



View looking northwest from the vacant lot toward the back side of the vacant service station buildings, where suitable bat day-roosting habitat is present in the Spanish tile roofs. Mature trees from the golf course property are visible in the background.



Closer view of the crevices between the Spanish tiles, which are suitable for use by roosting bats including maternity colonies.



View looking south at the vacant lot from its northwestern corner. The lots consists primarily of bare ground with some ruderal vegetation.

LSA

FIGURE 2

*One Beverly Hills Overlay Project  
Focused Bat Surveys  
Representative Photos*



Representative view of some of the buildings near the swimming pool that are proposed for demolition. The architectural design of these buildings lack crevice and cavity features suitable for use by roosting bats.



Representative view of a typical design of other buildings on site that are proposed for demolition. The architectural design of these buildings lack crevice and cavity features suitable for use by roosting bats.



Representative view of the aboveground parking structure that is proposed for demolition. The architectural design of this building lack crevice and cavity features suitable for use by roosting bats.



Closer view of the structural features of the parking structure that is proposed for demolition. Although there are elements that provide entry and exit points, the structural features lack suitable crevice and cavity features for roosting bats.



Bat species acoustically detected during the nighttime emergence survey were canyon bats, Mexican free-tailed bats, and Yuma myotis. Similar to the passive acoustic monitoring survey, a larger number of echolocation call sequences was recorded on the detector deployed in the vacant lot and near the golf course. Specifically, 20 echolocation call sequences were recorded on the detector deployed at the vacant lot, while one of the two detectors deployed at the street side of the gas station buildings recorded nine sequences and the other detector recorded six sequences. The individuals observed and/or acoustically detected during the nighttime emergence survey likely originated from a roost located somewhere in the area surrounding the project site.

## STATE REGULATIONS

Various regulations afford protections to bats, which are classified as indigenous nongame mammal species, regardless of their status under the California or Federal Endangered Species Acts. These regulations include Title 14, Section 251.1 of the California Code of Regulations, which prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits "take"<sup>1</sup> or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered "take" as defined in Section 86 of the California Fish and Game Code. Impacts to bat maternity colonies, which are considered native wildlife nursery sites, could be considered potentially significant under the California Environmental Quality Act.

## FINDINGS AND RECOMMENDATIONS

No active bat roosting sites were found on the project site and there is no evidence of prior bat roosting. Three bat species—Mexican free-tailed bat, canyon bat, and Yuma myotis—were detected flying within the project area. In addition, two echolocation call sequences potentially belonging to western red bat may also have been recorded at the detector deployed in the vacant lot; however, these sequences were fragmentary, of poor quality, and could not be conclusively identified as belonging to that species. During both the passive acoustic monitoring survey and the nighttime emergence survey, higher levels of bat activity were recorded on the acoustic detector deployed at the vacant lot. Some of the echolocation calls on both acoustic detectors were recorded within 20 minutes of sunset, suggesting that those bats were roosting nearby, though not on the project site.

While no active bat roosting was identified on the project site during the focused surveys, suitable day-roosting habitat for bats is present in the Spanish tile roofs of the gas station and convenience store buildings located at 9988 Wilshire Boulevard. Although no bats were seen emerging from these structures during the nighttime acoustic and emergence survey performed on October 9, 2020, bats are highly mobile species, may change roosts seasonally, and can occupy suitable roosting habitat at any time. If it is determined that bats are occupying the service station's Spanish

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<sup>1</sup> Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

tile roof at the time of building demolition, then following measures are recommended to avoid “take” of bats during building demolition:

- If demolition is scheduled outside of the bat maternity season (April 1–August 31), a pre-construction clearance survey may be conducted within two weeks of demolition of the service station buildings to determine whether bats are roosting. If bats are present, a qualified bat biologist shall install or directly supervise installation of humane eviction devices and exclusionary material as described below. If bats are confirmed absent, the buildings may be removed.
- Prior to demolition of the Spanish tile-roofed buildings, a qualified bat biologist shall install or directly supervise installation of humane eviction devices and exclusionary material to evict bats that are present and to prevent bats from roosting in the buildings. Implementation of the humane eviction/exclusions is typically performed in the fall (September or October) preceding construction activity at each structure to avoid impacts to hibernating bats during the winter months or during the maternity season (typically from April 1 through August 31 in Southern California), when flightless young are present. Humane evictions/exclusions cannot be performed during the bat maternity season because this would result in “take” of juvenile bats, and should be avoided during the winter because bats are not consistently active and may be hibernating. Any humane eviction/exclusion devices must be installed at least 10 to 14 days prior to the demolition of a structure housing bats to allow sufficient time for the bats to vacate the roost(s).

The nighttime acoustic and emergence survey was performed outside of the recognized bat maternity season (April 1–August 31). It was not possible to determine whether the Spanish tile roofs at the gas station buildings have been or will be used by maternity colonies. If maternity colonies use these features, or if their use of those features cannot be ruled out, the following measure is recommended to mitigate for loss of roosting habitat:

- Replacement bat roosting habitat structures shall be installed on site. The design of these structures shall be developed in coordination with a bat biologist who has experience designing roosting habitat mitigation to ensure that appropriate crevice sizes and adequate thermal characteristics are included in the specifications. These habitat structures can often be designed and fabricated to create a decorative aesthetic while also meeting the ecological needs of the target bat species. The aspect and location of the roost structures shall also be determined in coordination with a bat biologist.

If bats are roosting on the site and the above measures are implemented, potential adverse effects to roosting bats will be minimized to the greatest extent feasible and would be less than significant under the California Environmental Quality Act.