

**General Retail Store Project  
Burrowing Owl Habitat Assessment**



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### **1.0 INTRODUCTION**

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This report presents the results of a Burrowing Owl (*Athene cunicularia*) habitat assessment conducted by AMEC Environment and Infrastructure, inc. (AMEC) for the proposed General Retail Store Project in the City of Joshua Tree, San Bernardino County, California.

The project site is within the range of the Burrowing Owl, a Species of Concern protected under Fish and Game Code Section 3503.5 and the Migratory Bird Treaty Act. As such, the San Bernardino County Planning Division requires that a habitat assessment for the species be conducted in accordance with the *Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012)*.

#### **1.1 Project Location**

Dynamic Development Company, LLC (Dynamic Development) proposes to construct a general retail store in the City of Joshua Tree, San Bernardino County, California. The approximately 1.4 acre project site is located at the northwest corner of the intersection of Twentynine Palms Highway (State Highway 62) and Sunburst Avenue (Figure 1). Commercial Street and Mountain View Street bound the project site on the north and west, respectively (see **Photographic Exhibits**).

The project site is within County Assessor's Parcel Number (APN) 0603-204-04 and in Section 25 of Township 1 North, Range 6 East on the *Joshua Tree North, Calif. U.S.G.S. 7.5'* quadrangle. The elevation of the flat site is approximately 2720 feet above sea level.

### **2.0 BURROWING OWL: BACKGROUND**

Burrowing Owls (*Athene cunicularia*) are small, ground-dwelling owls that live, as the name implies, in burrows. They typically occupy the burrows of small mammals, and only rarely excavate their own. The species also uses pipes, culverts, rockpiles, and other enclosed spaces as "surrogate burrows". Active day and night, the owls may perch conspicuously on fenceposts, vegetation or at the entrances of their burrows.

Due to the uniquely fossorial habits of Burrowing Owls, nest burrows are the critical component of their habitat. In southern California, Burrowing Owls are found in relatively arid, open areas, including fallow agricultural lands, the edges of actively farmed lands, airports, vacant lots, grasslands, and desert scrub. Burrowing Owl habitat includes, but is not limited to native and nonnative grassland, interstitial grassland within shrub lands, shrub lands with low density shrub

cover, golf-courses, drainage ditches, earthen berms, pasture, dairies, fallow fields, and agricultural areas. The species is notably opportunistic.

In spite of tolerance of human activity “California’s Burrowing Owl population is clearly declining and, if declines continue, the species may qualify for listing” (CDFG] 1995). The declines in Burrowing Owl populations are attributed to loss and degradation of habitat, to ongoing residential and commercial development, and to rodent control programs. The Burrowing Owl has been designated a Species of Special Concern by CDFG, and is protected by the Migratory Bird Treaty Act and the CDFG Code.

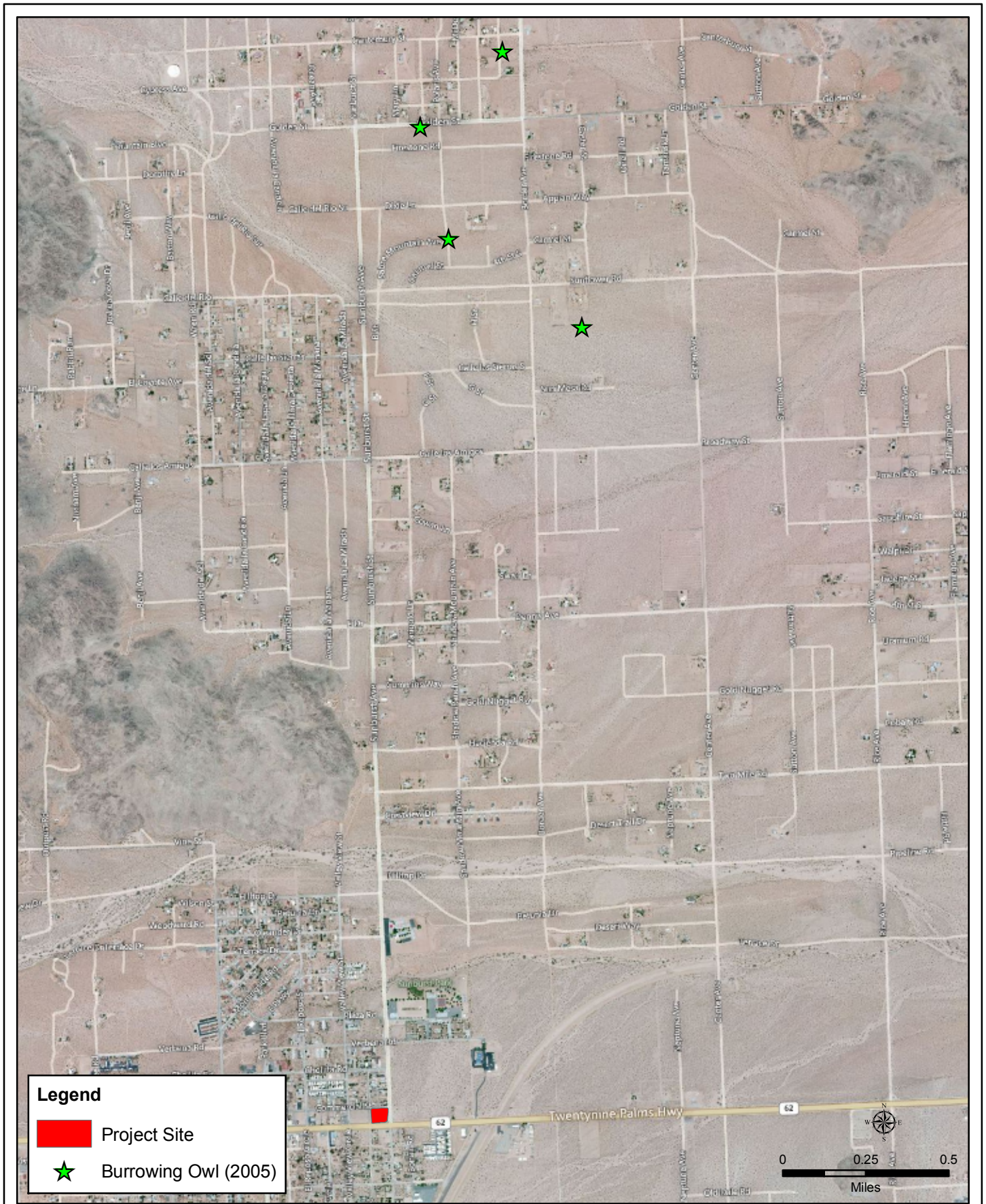
Burrowing Owls typically use burrows made by fossorial (adapted for burrowing or digging) mammals, such as California Ground Squirrels (*Spermophilus beecheyi*) or American Badgers (*Taxidea taxus*). They often use manmade structures, such as earthen berms; cement culverts; cement, asphalt, rock, or wood debris piles; or openings beneath cement or asphalt pavement. Burrowing Owls can be affected by disturbance and habitat loss, even though there may be no direct impacts to the birds themselves or their burrows.

Occupancy of suitable Burrowing Owl habitat can be verified at a site by detecting a Burrowing Owl, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing Owls exhibit high site fidelity, reusing burrows year after year.



FIGURE

1



### **3.0 METHODOLOGY**

Prior to the field visit the California Natural Diversity Database was checked for Burrowing Owl occurrences in the project vicinity, and documents pertaining to previous biological studies on the project site were reviewed.

The California Burrowing Owl Consortium and the California Department of Fish and Game developed Survey Protocol and Mitigation Guidelines to meet the need for uniform standards when surveying Burrowing Owl populations and evaluating impacts from development projects. (CBOC 1993, CDFG 1995, CDFG 2012). The guidelines are intended to provide a decision-making process that is implemented wherever there is potential for an action or project to adversely affect Burrowing Owls or the resources that support them.

The process begins with a multiple step survey protocol to document the presence of Burrowing Owl habitat, and evaluate Burrowing Owl use of the project site and a surrounding buffer zone. When surveys confirm occupied habitat, mitigation measures are followed to minimize impacts to Burrowing Owls, their burrows, and foraging habitat on the project site. The guidelines emphasize maintaining Burrowing Owls and their resources in place rather than minimizing impacts through displacement of owls to an alternate site.

The habitat assessment (this report) is the first step.

The habitat assessment was conducted on October 17, 2012 by AMEC ornithologist Chet McGaugh. Transects were walked across the site and on the perimeter of the site. Buffer zones on the adjacent lands to the west and east were assessed; north (south side of Twentynine Palms Highway) and north buffers (residential) are developed, and obviously not habitat.

### **4.0 RESULTS**

The project site, located adjacent to a busy intersection, is highly disturbed. It is obviously used as a shortcut for driver's avoiding the intersection, and parked vehicles indicate that it is an unofficial car pool parking lot.

The California Natural Diversity Data Base reports Burrowing Owls and burrows approximately 2.5 miles north of the project site in 2005 (Figure 1) Habitat in that area is characterized as "creosote bush – white bursage series dominated by creosote bush and white bursage" and is distant but largely contiguous with the project site.

The project site has been previously surveyed for Desert Tortoise (*Gopherus agassizi*) and was described as "substantially disturbed as a result of previous human use associated with nearby development... existing vegetation consisted of sparse creosote bush (*Larrea tridentata*), burrobush (*Ambrosia dumosa*), and cheesebush (*Ambrosia salsola*)" (Ironwood Consulting, Inc. 2012).

The site was searched for burrows and "burrow surrogates" suitable for occupation by Burrowing Owls; none were found. Several small mammal burrows were found, none were

large enough to be used by Burrowing Owls. Small berms on road edges were closely examined, and no burrows were found.

California Ground Squirrels (*Spermophilus beecheyi*) were not seen on the project site or in the buffer areas.

No Burrowing Owls or sign (active burrows, feathers, pellets, scats) of Burrowing Owls were found on the project site or in the buffer areas.

Birds detected during the assessment were: Rock Pigeon (*Columba livia*), House Finch (*Carpodacus mexicanus*), White-crowned Sparrow (*Zonotrichia leucophrys*) and Ladder-backed Woodpecker (*Picoides scalaris*, in large trees in the residential area to the north).

## 5.0 CONCLUSION

It is the conclusion of AMEC that the General Retail Store project site is not occupied by Burrowing Owl nor is it likely to be occupied as the site is disturbed and under constant human use. While the vegetative condition of the site is disturbed but nonetheless compatible and contiguous with (at least formerly) occupied habitat in the vicinity (see Figure 2), the project site is not suitable for Burrowing Owl occupation.

This determination will be valid for one year and, if ground-breaking does not occur in that period it will be necessary to update this determination.

The Staff Report on Burrowing Owl Mitigation presents February 15 as the beginning of the Burrowing Owl breeding season. It is the opinion of AMEC that if project ground-breaking does not occur prior to February 15, 2013 a one visit pre-construction survey should be conducted within 30 days of groundbreaking.

## 6.0 LITERATURE CITED

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**APPENDIX**  
**PHOTOGRAPHIC EXHIBITS**

## PHOTOGRAPHIC EXHIBITS



Photo 1. View east along Twentynine Palms Highway.



Photo 2. View across the project site.



Photo 3. View across the project site..



Photo 4. View north along Mountain View Street.