



PROTECTED PLANT PRESERVATION PLAN

Victorville, CA
APN: 3092-401-01,
02, & 07

Prepared for:

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Prepared by:

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TITLE PAGE

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Report Title: Protected Plant Preservation Plan

Project Location: Victorville, California

Prepared for: AZIZ, LLC

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1.0 SUMMARY

At the request of the project proponent, RCA Associates Inc. surveyed the 13-acre parcel (approximately) located at the corner of Nisqualli Road and Balsam Road in the City of Victorville, California (Township 5 North, Range 4 West, Section 29, USGS Hesperia, California Quadrangle, 1956). This report provides the results of the Joshua tree (*Yucca brevifolia*) survey performed on the site on November 2, 2018. Following completion of the surveys, RCA Associates Inc. prepared this Protected Plant Preservation Plan for the project to assist the proponent with future relocation of the Joshua Trees. Information on the Joshua trees which will need to be transplanted in the future is provided in Section 4.0. The City of Victorville has established a Plant Protection and Management code for Joshua trees (Municipal Code: Chapter 13.33) to help protect and preserve desert vegetation, including Joshua trees, and the requirements of the Ordinance are provided in this report.

There are a total of 14 Joshua trees present within the boundaries of the property (See Table 4-1) based on the field investigations conducted by RCA Associates Inc. Following the analysis of each tree it was determined that 8 of the 14 Joshua trees (58%) are suitable for transplanting and these trees are noted in red in Table 4-1. The remaining trees (6) were determined to be unsuitable for transplanting due to a variety of factors such as; size, condition, damage, possibly disease, etc.

2.0 INTRODUCTION AND PROJECT LOCATION

The area encompassing the project is approximately 13-acres in size and is located at the corner of Nisqualli Road and Balsam Road in the City of Victorville, California (Township 5 North, Range 4 West, Section 29, USGS Hesperia, California Quadrangle, 1956) (Appendix A: Figures 1, 2, and 3). The property supports a creosote community consisting of Joshua trees (*Yucca brevifolia*), creosote bush (*Larrea tridentata*), rubberbrush (*Ericameria nauseosa*), Indian ricegrass (*Oryzopsis hymenoides*), California buckwheat (*Eriogonum fasciculatum*), desert needle (*Stipa speciosa*), Nevada joint fir (*Ephedra nevadensis*), and brome grasses (*Bromus sp.*). Vacant land borders the site to the north with residential developments located to the east and south. An existing church and school border the property on the west.

Joshua trees occur throughout the Mojave Desert in Southern California and are typically found at an elevation of 400 to 1,800 meters (~1,200 to ~5,400 feet). Joshua trees within the western portion of the Mojave Desert typically receive more annual precipitation during “normal” years; consequently, cloning occurs more often resulting in numerous trunks sprouting from the same root system (Rowland, 1978). Joshua tree habitats provide habitat for a variety of wildlife species including desert wood rats (*Neotoma sp.*) and night lizards (*Xantusia sp.*) both of which utilize the base of the trees. A variety of birds also utilize Joshua trees for nesting such as hawks, common ravens, and cactus wrens. CDFW consider Joshua tree woodlands as areas that support relatively high species diversity and as such are considered to be a sensitive desert communities. Joshua trees are also considered a significant resource under the California Environmental Quality Act (CEQA) and are included in the Desert Plant Protection Act, Food and Agricultural Code (80001 – 80006).

3.0 METHODOLOGIES

Surveys were conducted on November 2, 2018 to determine the presence of plants which are protected under the City's Plant Protection and Management code. As part of the field investigations, biologists from RCA Associates Inc. evaluated each Joshua tree to determine which trees were suitable for transplanting based on a general health assessment. Each Joshua trees received a metal numbered tag which was affixed on the north side of each tree (for orientation purposes during future transplanting), the precise location of each tree was recorded using a Garmin GPS unit, and flagging was also placed on each tree to facilitate identification. Those Joshua trees which are suitable for transplanting are presented in Table 4-1 and the locations are depicted in Figure 4. The factors utilized to determine which Joshua trees are suitable for transplanting include the following factors:

1. Trees from 3 feet in height up to about 12 feet,
2. No visible signs of damage to the tree such as absence of bark due to rodent or other animals,
3. Minimal number of branches (No more than 2 to 3 branches),
4. No excessive leaning of the tree,
5. No yellow or brown fronds,
6. Proximity to other Joshua trees (i.e., clonal), and
7. No exposed roots at the base of the tree.

4.0 RESULTS

There are a total of 14 Joshua trees within the boundaries of the site, and the density of Joshua trees is approximately (14/13= 1 per acre). The GPS locations of the Joshua trees are provided in Table 4-1 and in Figure 4. A total of 14 Joshua Trees (58%) are suitable for transplanting based on the seven factors listed above in Section 3.0 (Table 4-1). The Joshua trees suitable for transplanting will be relocated/transplanted on site as part of on-site landscaping, on-site in an area outside of the project footprint, or off site at a location approved by the City of Victorville. Those Joshua trees that are not suitable for relocation/transplanting due to size, health of the tree, presence of damage, excessive branches, and exposed roots will be removed and disposed of as per City requirements.

Table 4-1: Census of Joshua trees to be transplanted. (Note: The GPS locations [approximate] of the Joshua trees are provided below, and those trees which will be transplanted at some future date are highlighted in red.)

Total Number of Joshua Trees On-Site	Joshua Trees to be transplanted	Number of Trees not to be transplanted	
14	8	6	
Tag Number	Height(ft.)	Health	Transplantable
390	10	Poor	No
385	12	Poor	No
387	15	Good	No/Height
388	6	Good	Yes
393	11	Good	Yes
389	11	Good	No/Height
384	10	Good	Yes
386	7	Poor	No
383	8	Good	Yes
392	6	Good	Yes
391	5	Good	Yes
394	2	Good	Yes
395	3	Good	Yes
396	2	Poor	No

5.0 CONCLUSIONS

The property contains a total of 14 Joshua trees of which 8 are suitable for future transplanting. This number was determined based on: (1) trees which were three feet or greater in height and less than twelve feet tall (approximate); (2) in good health; (3), two branches or less; (4) density of trees (i.e., no clonal trees); no exposed roots; and (6) trees that are not leaning over excessively. The City of Victorville Municipal Code (Chapter 13.33) requires preservation of Joshua trees given their importance in the desert community. A qualified approved contractor will be retained to conduct any future transplanting activities, and will follow the protocol of the City's Municipal Code. The following criteria will be utilized by the contractor when conducting any future transplanting activities.

- A. The Joshua trees will be utilized as part of on-site landscaping, where possible, or will be transplanted to an area of the property where they can remain in perpetuity. Joshua trees which are deemed not suitable for transplanting will be cut-up and discarded from the site.
- B. Earthen berms will be created around each tree by the contractor prior to excavation and the trees will be watered approximately one week before transplanting. Watering the trees prior to excavation will help make excavation easier, ensure the root ball will hold together, and minimize stress to the tree.
- C. Each tree will be moved to a pre-selected location which has already been excavated, and will be placed and oriented in the same direction as their original direction. The hole will be backfilled with native soil, and the transplanted tree will be immediately watered. As noted in Section 3.0, a numbered metal tag was placed on the north side of the tree and the tree was also flagged with surveyor's flagging.

D. The contractor will develop a watering regimen to ensure the survival of the transplanted trees. The watering regimen will be based upon the needs of the trees and the local precipitation.

6.0 REFERENCES

Brittingham, S. and W. Lawrence.

2000. Facilitation of *Yucca brevifolia* Recruitment by Mojave Desert Shrubs. *Western North American Naturalist* 60(4), pp. 374-383.

Hickman, James C.

The Jepson Manual Higher Plants of California. University of California Press. Berkeley, CA. 3rd Edition. 1996.

Holland, Robert F.

1986 Preliminary Description of the Terrestrial Natural Communities of California. Prepared for the California Natural Diversity Data Base. California Department of Fish and Game. Sacramento, California. 160 pp.

Johnson, H.

1976 vegetation and Plant Communities of Southern California Deserts- a functional view. In Symposium proceedings: Plant communities of Southern California. June Latting, editor. California Native Plant Society, Spec. No. 2 Berkeley, CA.

Munz, Philip A.

1974. A Flora of Southern California. University of California Press, Berkeley, California. 1086 pp.

7.0 CERTIFICATION

I hereby certify the statements furnished above and in the attached exhibits, present the data and information required for this Joshua tree survey and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this survey was performed by Randall Arnold, Parker Smith, and Heidi Coduto.

Date: 11/02/2018 Signed: *Randy Arnold*

Field Work Performed by: Randall Arnold
Principal & Senior Biologist

Field Work Performed by: Parker Smith
Biological Field Technician

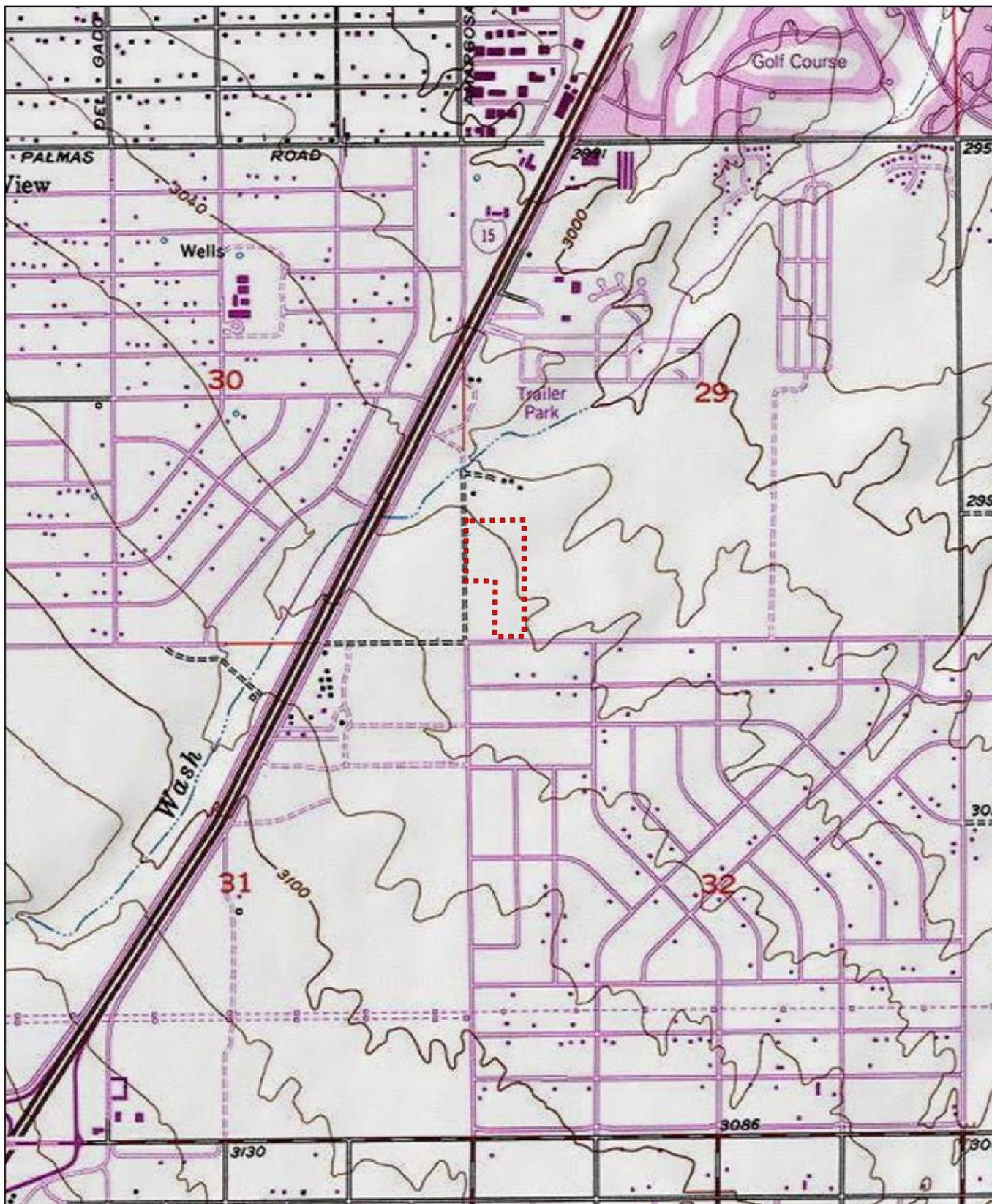
Figure 1

Regional Vicinity Map



Figure 2

Topographic Map



0 250 500 750 m



Legend

..... Property Border

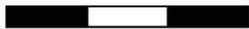


Figure 3

Local Vicinity Map



0 100 200 300 m



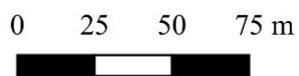
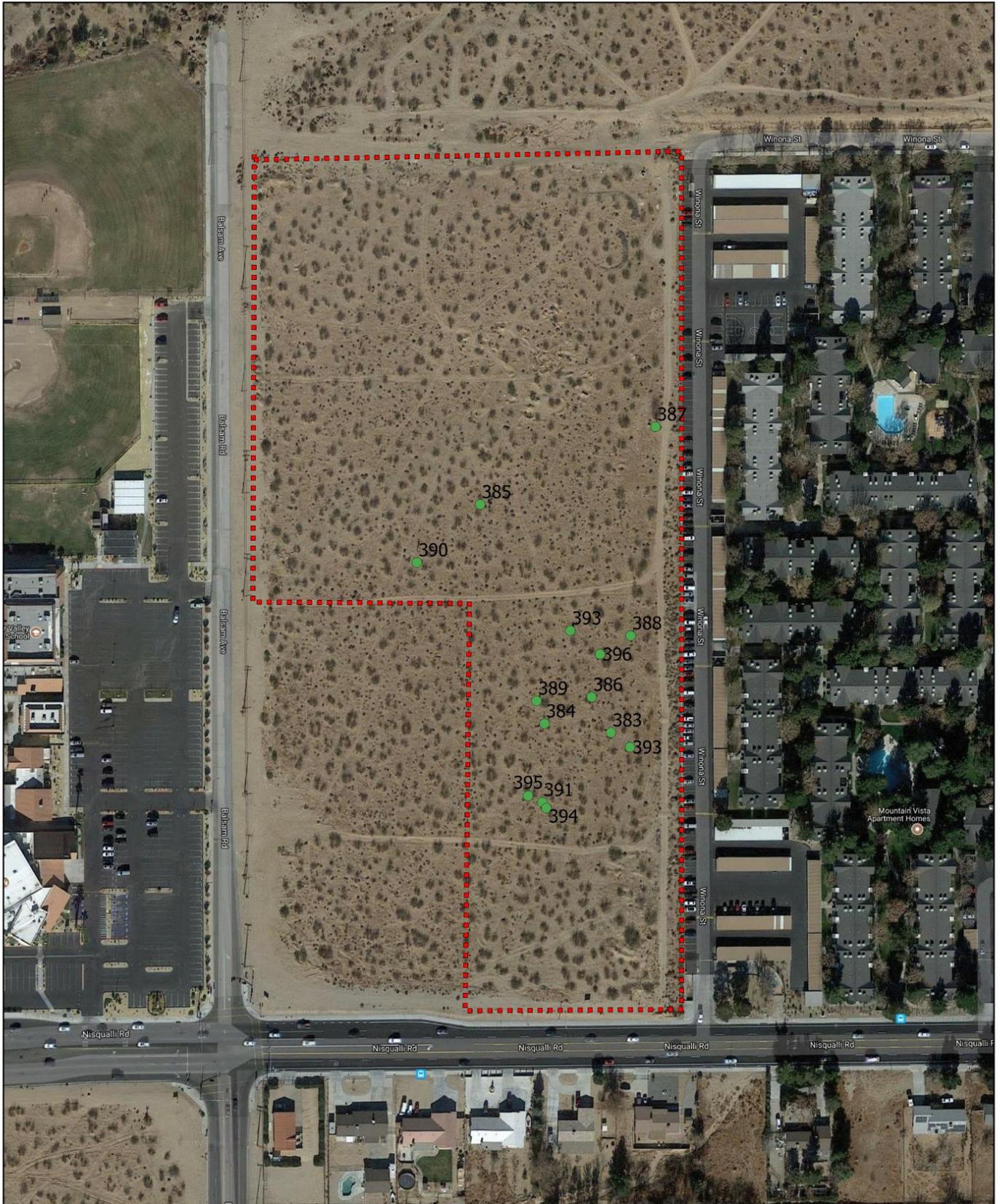
Legend

--- Property Border



Figure 4

Joshua Tree Locations



- Joshua Tree Locations
- ▬▬▬ Property Border

